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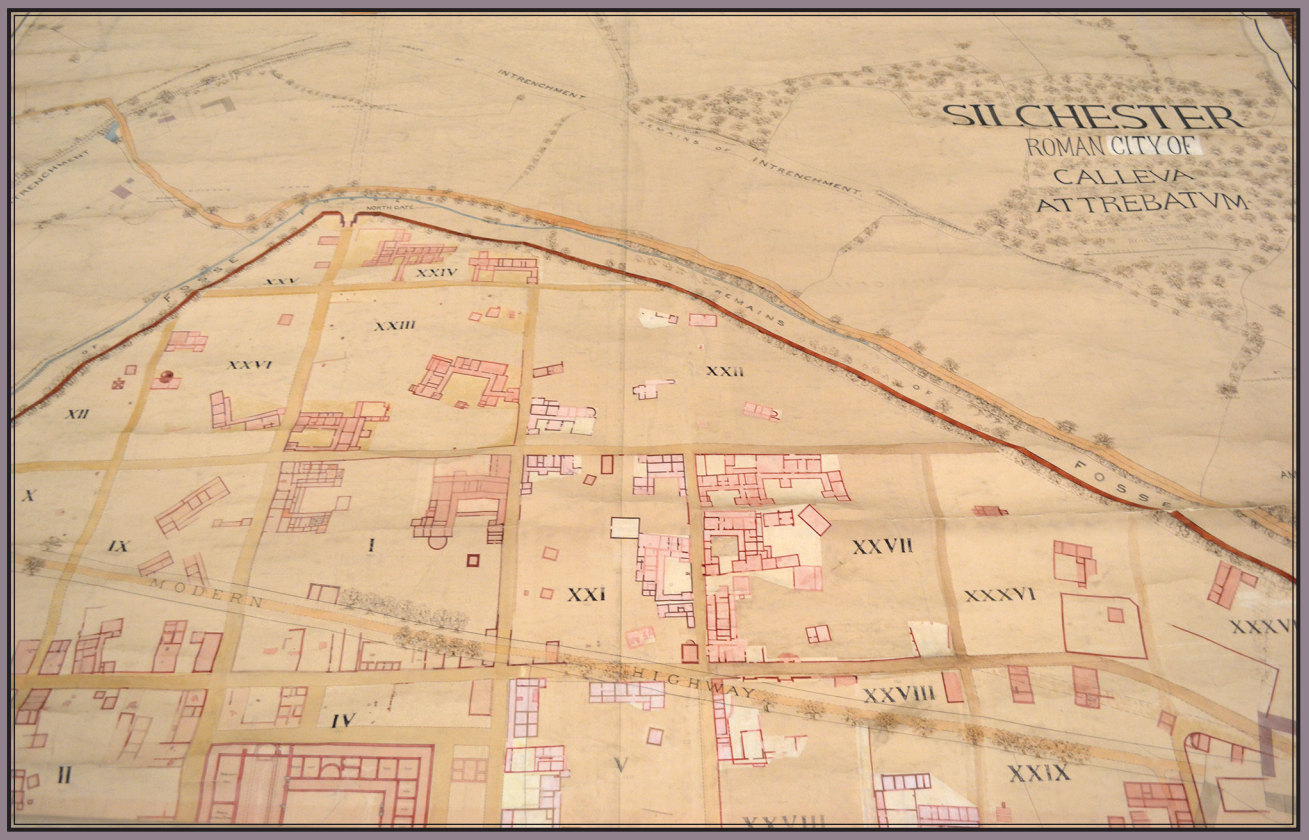
SILCHESTER: CHANGING VISIONS OF A ROMAN TOWN

INTEGRATING GEOPHYSICS AND ARCHAEOLOGY: THE RESULTS OF THE SILCHESTER MAPPING PROJECT 2005–10

JOHN CREIGHTON with ROBERT FRY



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CHANGING VISIONS OF A ROMAN TOWN

INTEGRATING GEOPHYSICS AND ARCHAEOLOGY:
THE RESULTS OF THE SILCHESTER MAPPING PROJECT
2005–10

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BY

John Creighton with Robert Fry

DIGITAL MATERIAL

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Front cover illustration: A photograph of Henry Hodge's Great Plan, finalised in 1909
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Back cover illustration: The revised plan of Silchester, showing Insulae numbers, superimposed over the Environment Agency LiDAR data

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In relation to the fieldwork: during the summer of 2006 Laura Cripps assisted by Rob Fry supervised participants from the Silchester Field School in the collection of data from the interior of the city, the data being processed by myself; and in 2008–9 the survey of the exterior was undertaken, led by Rob Fry with the assistance of Nick Crabb, Lee Calderbank, Alice James, Matt Berry and other occasional volunteers, the data being processed by Rob Fry. Throughout the project Dave Thornley provided invaluable support, and helped us optimise our walking techniques, significantly reducing the time it took to survey grids. Tim Astin provided advice

on the use of Ground Penetrating Radar and Electrical Resistance Tomography. Tim Phillips provided occasional and valued support throughout various stages of the project.

Over the years three undergraduates undertook surveys as part of their dissertations, Rob Fry (2007, pl. X) trying out multiple techniques in what became our 'test area' spanning Insulae II and IX; Jenny Saffrey (2008) exploring the temple area in the paddocks south of Manor Farm; and Nick Crabb (2009) in the area around the Amphitheatre. Their raw data have been incorporated within this project.

In relation to the digitisation, Duncan Sayer spent many hours on the initial processing of the Society of Antiquaries' plans. Pete Brewer helped set up the initial GIS framework for the project. Rob Fry carried out the initial digitisation and first-line interpretation of the geophysical results with subsequent work integrating the dataset being done by myself. Elements of the GIS, where copyright permits, will be deposited within the Archaeology Data Service.

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IMAGE PERMISSIONS

I would like to thank the following for the use of their images or data: Jean and Martin Norgate for their image of Isaac Taylor's map (FIG. 3.3); Adrian James at the Society of Antiquaries of London for arranging the photography of some early prints (FIGS 2.1, 3.4, 3.5, 3.9); the Environment Agency's Geomatics division for the LiDAR data (FIG. 3.14, and the background to other images); John Gater and Chris Gaffney for the reproduction of their early geophysical survey at Silchester by GSB (FIG. 3.15); English Heritage/Historic England for the reproduction of their geophysical surveys over the Forum area and the western cemetery (FIGS 3.16, 4.2, 4.3, 13.4); the NMR/Historic England for the reproduction of the photographs in FIG. 14.5 (© Crown copyright HE).

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SUMMARY

Silchester (*Calleva Atrebatum*) is a Roman town in Hampshire, in central southern Britain. Unlike many, the site was abandoned in the post-Roman period leaving it as a largely greenfield site now. The Amphitheatre, Town Wall and some Outer Defences all remain visible for the visitor to see. The town has been highly influential in the development of Romano-British archaeology due to the large-scale excavation by the Society of Antiquaries in 1890–1908 which developed an overall plan of the site.

This volume draws together for the first time all the fieldwork known to have taken place, from the earliest located trenches in the 1720s up until the modern campaigns of Michael Fulford (1974–present). The cut-off date is 2013. It integrates this work with a new geophysical survey of the interior and vicinity to provide a new overarching narrative for the town.

The volume starts with a historiography of work on the city from earliest antiquarian investigations through to recent campaigns; and this sense of historiography and changing interpretations of the site permeates the later discussion, showing how new discoveries have transformed understandings.

The core of the volume contains the empirical data. Work has taken place digitising all the past excavation plans, and combining this with other datasets including: two major fieldwalking campaigns, the aerial photographic plots, landscape analysis from earlier maps from the Ordnance Survey and earlier sources, LiDAR, other mapping data, and finally 217 ha of new geophysical prospection in and around the town. An atlas has been created which shows these data in a variety of formats, together with a detailed text outlining all the past interventions within each sheet, and providing a summary of the discoveries together with references to their later reinterpretation where relevant.

The final sections provide essays in interpretation, with thematic reviews of: the defences and linear earthworks; the development of the *oppidum*; the interpretation of Roman military metalwork; an interpretation of the evidence for the mortuary landscape of the town; discussions of urban infrastructure, trade, industry and pubic entertainment. Finally, a narrative overview is provided reviewing how the town's remains have been interpreted within an historical setting.

There are methodological innovations differentiating the signal strength of features in the fluxgate gradiometry data to map 'hotspots' representing possible cremation pyre areas, middens, and industrial activities to develop our understanding of the mortuary landscape and also that of shops and workshops within the town; these techniques could readily be applied to other large-scale surveys of Roman cities which have already been undertaken.

The work provides the first overall synthesis of the city since Boon (1974). The new work includes a significantly revised impression of the development and chronology of the earthworks surrounding the town and maps all the Later Iron Age finds and evidence for the development of the street-grid from both excavation data and geophysics. Several new cemetery areas have been discovered, including a series of large Later Iron Age or Early Roman burial enclosures. Features have been identified which may represent elusive evidence for large-scale tanning operations near the town. Finally, there are traces on the gravel terrace edge of a series of parallel lines which may be indicative of a circus, though ground-truthing is required to test that.

The overall urban assessment and synthesis enable Silchester to be seen alongside the other recent comprehensive reviews of major cities in south-east Britain, such as *Verulamium* (Niblett and Thompson 2005) and Colchester (Radford *et al.* 2013).

INTRODUCTION

CHAPTER 1

SCOPE, AIMS AND OBJECTIVES

> Silchester is a place that a lover of antiquity will visit with great delight: it stands upon the highest ground thereabouts, but hid with wood, which grows very plentifully all about it. Many were the Roman roads that met here, though now scarce any road; which is the reason it is so little known: it is likewise inconvenient for travellers, because no inns are near it …
>
> (Stukeley 1776, 177)

Silchester lies in a liminal location, founded at some time in the late first century B.C., between the communities of the Wessex chalklands, the Upper Thames and the Cotswolds to the west, and the newly emerging polity in the Lower Thames and Essex to the east (Cunliffe 2012). In the present day it is similarly peripheral on the northern edge of Hampshire, whose border bulges out into Berkshire to incorporate it. Nonetheless, the site has lain at the heart of Romano-British studies since the discipline of archaeology emerged out of antiquarianism in the nineteenth century. It was then that a succession of individuals laid bare the iconic plan of this Roman city to give an impression of its full urban form, influencing authors like Francis Haverfield as he formulated his ideas about the Romanisation of Britain (Hingley 2012). However, despite its intellectual centrality in the world of ideas, it yet remains a greenfield site, off the beaten track, with the lack of a nearby museum only partially remedied by a few interpretation boards. The intense investigative period of the later nineteenth century gave way to the relative quiet of the twentieth until George Boon synthesised contemporary knowledge in his two books in the mid-century (Boon 1957; 1974). Michael Fulford began a long series of excavations in 1974 which continue into the present; alongside which there have been many small-scale interventions by contracting archaeologists as the living community in and around the site coped with working within the confines of an ancient monument.

The origins for this project lay in the confluence of three overlapping interests of my own: the broader research context of the origins of Romano-British towns which I had been writing on; the development of better geophysical equipment and methods of manipulating geographical information with GIS; and a change in policy and practice in how English Heritage supported local authorities in dealing with thinking about historic urban centres.

THE RESEARCH CONTEXT

The interface between the Iron Age and Roman worlds has always been one of my key research themes, and I have explored thoroughly the various approaches to the development of early Roman towns in Britain in a number of works, particularly in *Britannia* (Creighton 2006). Silchester is one of the classic examples of a major Late Iron Age settlement or *oppidum* that becomes a town, but also a potentially unique one in Britain in that it really does display a certain degree of nucleation and settlement density in the Late Iron Age that sites such as *Verulamium* and *Camulodunum* have yet to demonstrate.

Despite so much endeavour over the years our knowledge, as always, remains partial. In a

research framework review of Hampshire in 1996, Fulford identified as the key deficits in our knowledge: 'the location of the cemeteries; the differential influence of the roads leading in and out of the city, the interpretation of the long linear earthworks radiating out from the town, particularly to the south, and the origins of the Late Iron Age *oppidum* itself' (Fulford 1996, 31). His excavations in Insula IX are now down to the level where they are exploring the Iron Age origins in this one area, but little progress has been made in any of the other areas since this review. He reiterated similar themes 14 years later in the Solent-Thames Research Framework: the hinterland and mortuary landscapes around the city needed investigation, sampling for biological remains from cremation cemeteries should be given a high priority, the dating of late antique inhumations was required, the relationships between kilns, workshops and settlements needed to be explored (Fulford and Allen 2010). Context and setting were what were particularly missing from our understanding of Silchester. A personal interest of my own was where the larger high-status burials around Silchester might be, analogous to Folly Lane and King Harry Lane outside *Verulamium*, and Stanway, Lexden and Gosbecks outside *Camulodunum*. I had ventured an educated guess in *Britannia* (Creighton 2006, 135–42), but some firm evidence would have been nice.

THE ADVANCES IN MAPPING AND COMBINING DATASETS

Developing a sense of location and space through the use of a variety of survey techniques is something that moved forward radically in the 1990s as computing power enabled geophysics, around since the 1950s, to take a massive leap forward. Back in the late 1980s, with Simon Keay and David Jordan, I explored combining geophysics, surface collection and excavation to investigate the Roman townscape of *Celti* (modern Peñaflor, Spain) (Keay *et al.* 1991); we were subsequently invited to do work at the iconic Spanish site of *Itálica*, birthplace of Trajan, in preparation for re-presenting the site to the public at the Seville 1992 World Trade Fair. We undertook a major programme of geophysics and surface collection in 1991–2 in one of the first really large-scale surveys of an entire city, combining datasets to maximise interpretation; alas political changes meant the publication took some time to appear and never quite had the impact it might have done (Creighton *et al.* 1999). However, surveys like these showed the potential and in Britain were rapidly followed up by the Wroxeter Hinterland Project 1994–9 (Gaffney and Gaffney 2000; White and Gaffney 2003; White *et al.* 2013). In the two decades since, large-scale urban geophysical surveys have become legion, most notably in Italy where some were on modest scales, such as *Fregellae* (Ferraby *et al.* 2008), *Ocriculum* (Hay *et al.* 2009), *Picenum* (Vermeulen *et al.* 2013) and *Falerii Novi* (Hay *et al.* 2010); while others such as the *Portus* survey covered extraordinarily large swathes of land (Keay *et al.* 2005; Keay *et al.* 2009). However, it was the combination of geophysics and *other* information which had worked so well at *Itálica*; there we had been permitted to chisel-plough lightly the until-recently cultivated ground surface before sampling the ceramics, marble and inscription fragments from the soil; at Wroxeter that was not permitted. Britain's other greenfield sites had similar restrictions. Caistor St Edmund, surveyed recently, similarly is now under pasture (Bescoby *et al.* 2009; Bowden and Bescoby 2008). So, while geophysical survey was becoming routine, it was the interpretation of geophysical data triangulated with other interventions, be it excavations, fieldwalking, LiDAR or whatever else, which made for the most powerful interpretations. The development of Geographical Information Systems has made this increasingly potentially easier, and integration has been the key behind the better surveys launched in the latter part of the first decade of the twenty-first century (cf. Millett 2014). A number of examples where this has happened were explored in a conference in Cambridge in 2010 (Johnson and Millett 2013); hopefully Millett will be taking precisely such a complementary approach at the much neglected northern city of Aldborough (Ferraby and Millett 2012).

THE URBAN ARCHAEOLOGY STRATEGY PROGRAMME

Meanwhile, commercial development led English Heritage to establish an *Urban Strategies Programme* in the 1990s to help inform the cultural resource management of *c.* 35 historic towns

and cities. To facilitate development within modern towns, planning authorities needed a clear vision of what lay underneath and its significance. Sites and Monuments Records provided patchy information, so projects were initiated which helped synthesise and integrate the fragmented knowledge which existed. All the data were brought together in an Urban Archaeological Database which included the records of multiple interventions of varying quality, detail and reliability. These were then used to create a synthesis or assessment of the archaeological resource, which in turn could be used to plan a strategy for its research, investigation and preservation.

York and Cirencester were early pilots (Ove Arup 1991; Darvill and Gerrard 1994) and many Roman cities followed: Lincoln, Canterbury, Colchester, Gloucester, Exeter, Leicester. Work naturally focused on modern towns and cities where modern development was taking place; greenfield sites like Caistor St Edmund, Wroxeter and Silchester were left out being in rural settings. *Verulamium* was one of those hybrid cases where the thriving city of St Albans on its boundary meant it was incorporated into such work, resulting in Niblett and Thompson's published monograph neatly summarising centuries of archaeological endeavour on the site (Niblett and Thompson 2005).

With the Roman cities under modern towns provided for and Wroxeter investigated (White *et al.* 2013), the lack of a synthesis of previous work at Silchester looked increasingly anomalous and a problem that needed tackling.

SILCHESTER MAPPING PROJECT: SCOPE, AIMS AND OBJECTIVES

Since excavations had been undertaken here from the 1740s onwards, the literature on the site had become both voluminous and exceptionally fragmented. While the major reports had been published within *Archaeologia* and more recently the Britannia Monograph Series, ancillary material had been scattered far and wide. For Silchester the collation, verification and geo-referencing of all previous work and its cumulative interpretation had not been undertaken. Nowhere did a plan exist of all previous excavations and interventions. Nowhere did a comprehensive bibliography of all the previous work exist. Boon and the National Record of the Historic Environment Database (Pastscape) had made a significant start, but a lot was missing from both. Accessing and navigating the literature was a problem.

The Silchester Mapping Project therefore sought: to bring together the cartographic sources for Silchester with new large-scale geophysical prospection; to digitise all past excavations and fieldwork from the 1740s to the present day; to index as far as possible all that had been done; and to see what new elements of synthesis could be derived in relation to the national and regional research agendas outlined above. The work would also doubtless identify gaps in knowledge which in turn would allow research to be properly targeted in the future. As Silchester is one of the few almost complete townscapes known in the Roman world, the aim was also to inform the broader international debates about Roman town development and characteristics, as well as to provide a model of methodological approaches that could be taken to unravel complex sites.

This work is divided into four parts. Part I is a review of previous activity on and about the site. Part II is the Mapping project itself, its methodology and the resulting atlas, where the old evidence and interpretations are presented alongside the new evidence, combining datasets. Part III examines the defences and presents the evidence for them alongside past and new revised interpretations. Finally, Part IV is a series of essays interpreting that evidence, synthesising various issues that arose from the research themes and the survey. This attempt to separate evidence and interpretation is quite explicit, although evidence is always interpreted in the light of prevailing ideas and conceptions.

Throughout this volume historiography and our gradual construction of 'knowledge' will be a constant theme. Inspired ideas from the past can be forgotten, past errors can be repeated so often they become facts, and both ideas and interpretations change. A sense of that change, to understand how we have got here and how knowledge has been and can be contested, is important to gain an accurate appreciation of where we are, and how firm our current understanding and interpretations are.

It has been over 40 years since the last major synthesis of the town was written by Boon (1974). Fulford will undoubtedly write one at some point, particularly drawing upon the richness of his modern excavation data that survey data can barely compete with; but in the meantime this work is offered as a way of integrating what has been done on this iconic site, raising some questions, and providing a resource and navigational tool for all those wishing to work on the materials or the site, or simply to understand and appreciate the landscape of great delight which Stukeley encountered *c*. 240 years ago.

PART I: PREVIOUS WORK

CHAPTER 2

LOCATING *CALLEVA*

The Roman city of *Calleva Atrebatum* appears in all of our early geographic sources for Britain: in Ptolemy (2.3.2), the Antonine Itineraries (*Itinera* VII, XIII, XIV and XV) and the Ravenna Cosmography (106.32). Pinning the name '*Calleva Atrebatum*' to the remains of the Roman walled town in the parish of Silchester may seem self-evident now, but its original attribution was very contentious. It was only settled in the early twentieth century, during the Society of Antiquaries' excavations, when a dedicatory inscription was found erected on behalf of the 'College of *peregrini* of *Calleva*' (*RIB* 70). Until then the name of the site had been the subject of heated debate resulting from a lack of good cartographic evidence for the roads of Roman Britain, the influence of a forged historical document and the application of wishful thinking wanting to associate Silchester with major historic events. Wallingford, Henley, Farnham and Reading were all held up at various points as candidates to be the *real* site of *Calleva* the tribal capital of the Atrebates, while Silchester was given other names (Rickman 1840, 413).

Henry of Huntingdon (*c.* 1080–1160) initiated the many years of confusion with his *Historia Anglorum*, first drafted in 1129, but updated until his death. He was an important source for early Anglo-Norman history, but his earlier sections were somewhat less reliable, drawing upon the ninth-century *Historia Brittonum* traditionally ascribed to Nennius. He examined Nennius' list of the 22 cities of Britain and identified each one with what he supposed to be its medieval counterpart. Crucially among them he associated *Kair Segent* with Silchester (Nennius, *Hist. Brit.* 66a; Huntingdon 1996, 1.3). Today we would identify this placename with *Segontium* (modern Caernarfon in North Wales), but Henry's attribution came from his reading of Julius Caesar's *Gallic Wars*, wherein it was stated that five peoples sent embassies to Caesar while he was battling with Cassivellaunus in the south-east of Britain; one of these was the Segontiaci (*BG* 5.21), a people not otherwise mentioned in Ptolemy's *Geography*. The temptation to situate them in the south-east was natural as this was where the narrative action was located, and given there was no other existing name for Roman Silchester, the ruined remains gained the title. The attribution brought to the site various mythological associations: Nennius had placed at *Caer Segont* the death and burial site of Constantius, father of Constantine the Great (Nennius, *Hist. Brit.* 25), to which Henry's contemporary **Geoffrey of Monmouth (*c.* 1100–*c.* 1155)** added Constantine III's elevation to the purple in A.D. 407 and the investiture of King Arthur (*Historia Regum Britanniae* 6.5; 9.1).

By the late sixteenth century this association had become established in historical thought and was enshrined in the publication by **William Camden (1551–1623)** of his magisterial work *Britannia* in 1586; he associated it with the name of *Vindomum*/*Vindomis* mentioned in the road-routes of the Antonine Itineraries, imagining it as the tribal city of the Segontiaci:

> … toward the North side of the county, sometimes stood *Vindonum*, the chiefe citie of the Segontiaci, which casting off his own name hath taken the name of the Nation, like as *Lutetia* hath assumed unto it the name of the Parisians there inhabiting, for called it was by the Britans *Caer Segonte*, that is to say, *the Citie of the Segontiaci*, and so Ninnius in his catalogue

> of cities named it. Wee at this day called it Silcester, and Higden seemeth to clepe it of the Britans *Britenden*. That this was the antient *Vindonum* I am induced to thinke by reason of the distance of *Vindonum* in Antoninus from *Gallena* or Guallenford and *Venta* or Winchester, and the rather because between this *Vindonum* and *Venta* there is still to bee seene a causey or street-way. (Camden 1610, 269–70)

Only a few demurred; the renowned astronomer, **Edmond Halley (1656–1742)** is the first recorded as questioning the views of the early antiquarians as early as 1718 when such topics were discussed at the Royal Society (Hearne 1902, 178), and he was clearly still bending ears about it four years later:

> Dr Halley hath a strange, odd Notion that Stonehenge is as old, at least almost as old, as Noah's Floud. Dr Halley hath also an odd Notion, and he is very positive in it, that Silchester in Hampshire is Antoninus's *Calleva*. But when he is possess'd of a Notion, he very hardly quits it. (Hearne 1906, 350)

The first person to put this idea into print, however, was **John Horsley (*c.* 1685–1732)**, another Royal Society Fellow, who disagreed with the *Vindomis* identification and bemoaned that Camden had ever stamped his authority upon the suggestion (Horsley 1732, 458). Like Halley, he associated Silchester with the *Calleva Atrebatum* of *Itinera* VII, XIII, XIV and XV in the Antonine Itineraries, stating the claim in his posthumously-published book *Britannia Romana* as part of a detailed and thorough analysis of the geographical sources for Roman Britain (FIG. 2.1).

> The first thing necessary to be done with respect to this *iter*, is to settle the terminus from whence it begins. This in my opinion appears so manifestly to be Silchester; that I cannot help expressing some surprize, that it should hitherto have escaped the observation of so many excellent antiquaries, and that I should now be singular in my opinion: however, I hope the evidence on the side of this sentiment will balance the general authority, that is opposite to it. (Horsley 1732, 457)

Unfortunately Halley's and Horsley's insights, built as they were upon a detailed reading of the Antonine Itineraries and other geographical writings, were immediately undermined by the excavation in the Forum at Silchester of a dedicatory inscription to none other than 'Hercules of the Segontiaci' (FIG. 3.5 inset lower left: *RIB* 67; Ward 1744–5). Given the two hypotheses that Silchester was either *Calleva* of the Atrebates or *Vindomis* of the Segontiaci, John Ward came heavily down on the latter side in publishing this new find. Silchester was now the home of the Segontiaci, the otherwise unknown tribe that had surrendered to Caesar (*BG* 5.21).

William Stukeley (1687–1765) chose to locate *Calleva* at Farnham (Stukeley 1724, 203), while he too christened Silchester as *Vindoma*. In order for this to fit he corrected (*sic*) his published transcriptions of the Antonine Itineraries XIII and XIV, substituting the name *Vindoma* for *Calleva* on these.

This interpretation might not have withstood scrutiny for too long had it not been for the addition to the weight of the evidence of a carefully conceived forgery. In 1747 **Charles Bertram (1723–1765)** alleged he had possession of a hitherto unknown work by **Richard of Cirencester (*c.* 1335–1401)** entitled *De Situ Britanniae* (Bertram 1757), preserving within it an account of a Roman general in Britain and 18 *itinera* comparable to those in the genuine Antonine Itineraries. These additional *itinera*, together with a description of Britain, appeared to confirm the identification of Silchester as *Vindomis*: 'On their confines, and bordering on the Thames, dwelt the Atrebates, whose primary city was *Calleba*. Below them, near the river *Kunetius* (Kennet) lived the Segontiaci, whose chief city was *Vindonum*' (*De Situ Britanniae* 6.10–11). A copy was sent to William Stukeley who was amongst those to give credence to the manuscript in a paper read to the Antiquaries in 1756, with the material being incorporated wholesale into the posthumous second edition of his *Itinerarium Curiosum* (Stukeley 1776; Rivet and Smith 1979, 182; Piggott 1985, 129–38).

This forgery misinformed and led astray a century of historical writings until it was exposed

P. 380.
BRITANNIA ROMANA
according to ANTONINE'S
ITINERARY.
THE
ENGLISH
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THE BRITISH CHANNEL
ANGLESEY
Isle of WIGHT
A scale of 60 Roman miles
Blatum Bulgium
Castra Exploratorum
Brenenium
Ostia Vedrae
Vindomora
Glanoventa
Vinovia
Cataracto
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Calcaria
Dervento
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Cambodunum
Legeolium
Mancunium
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Lindum
Mediolanum
Ratae
Venonae
Tripontium
Benniventum
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Durocobrivae
Verolamium
Durolipons
Sitomagus
Camulodunum
Glevum
Aricomium
Bleftium
Durocornovium
Calleva
Venta Icenorum
Rutupiae
Dubrae
Lemanae
Regnum
Clausentum
Vindelada
Sorbiodunum
Brige
Venta
Muridunum
Ilca Dumnoniorum
Lucarus
Bomium
Durnovarium
Durobrivae
Cambricum
Iciani
Villa Faustini
Ad anfam
Caesaromagus
Londinium
Vindomis
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with Silchester were uncommon; most adopted Silchester as '*Caer Segont* or *Segontium*' following the discovery of the Hercules inscription (Kempe 1833, 122).

The breakthrough came with the development of field archaeology. First, Sir Richard Colt Hoare's mapping of the Itineraries passing through Wiltshire convinced him Horsley had been right (Hoare 1821, 51–7). The problem was then approached from the London side when, in 1837, Sir Henry Ellis displayed to the Society of Antiquaries a survey that had been undertaken by Professor John Narrien from the Royal Military College at Sandhurst (Narrien 1836; 1837; Ellis 1838). This work mapped the main Roman road west from London, starting from Staines, through Windsor Great Park and Swinley Forest, clipping the northern part of the College's training grounds, and continuing on to Silchester. Subsequent discussion made clear that *Pontes*, the first stop out from London on *Iter* VII, should now be located at Staines rather than Old Windsor. With this revised attribution and on the basis that there were no other significant earthworks or remains to map along the road until Silchester, these remains *had* to be the *Calleva* of the Antonine Itineraries. Kempe and others rapidly revised their opinions to adopt this new baptism (Kempe 1838; Rickman 1840, 401). *Vindomis* was quietly dropped but not all were converts and many hung on to the alternative name of *Caer Segont*.

Complex contorted narratives were written to try and accommodate both the old and new identifications. As the Royal Archaeological Institute toured the site in the mid-nineteenth century Maclauchlan relayed to them John Narrien's narrative in which Silchester had switched between the tribes of the Segontiaci and the Bibrici at one point, and eventually ended up in the possession of the Atrebates to make it *Calleva Atrebatum* (Narrien 1836, 38; Maclauchlan 1851). Joyce, an early excavator at Silchester, described it as *Caer Segeint*, 'a stronghold of the Segontiaci, a native British race, who were driven westward before a wave of invasion, when a tribe of Belgic Gauls called Atrebates overflowed out of their own territories into Britain, and securely established themselves in this country', hence enabling Silchester to be *Calleva* as well (Joyce 1865, 10).

Some dogmatically stuck to the original identification. One particularly vociferous exchange took place within the pages of the magazine *The Antiquary* across the last 17 years of the century. A certain H.F. Napper repeatedly asserted *Calleva* was elsewhere, his favoured location being Calvepit Farm, Coley, near Reading. His arguments were tortuous with many digressions (along the way he explained why Roman London really should have been sought south of the Thames rather than under the City). Various antiquarians courteously countered him, such as the early replies by Hall and Turner (Napper 1883; 1884); but a few years later the argument reignited with the intransigent Napper being combated more aggressively by another antiquarian hiding behind a *nom de plume* of 'Fitz-Glanvil' until the editor of the magazine decided that it had gone too far, got too personal, and declined to publish any more on the matter (Napper 1888; 1899a; b; 1900; Fitz-Glanvil 1899a; b; c; 1900). Even as the Society of Antiquaries started their excavation campaign there in 1890, local societies writing up their tours to the site still referred to the city as *Caer Segont* (Anon. 1903), or in its hybrid interpretation as *Caer Segont* of the Britons or *Calleva* of the Romans (Young 1894).

Any equivocation should have finally been laid to rest in 1907 when the Antiquaries uncovered in Insula XXXV a dedicatory inscription to the College of *peregrini* of *Calleva* (*RIB* 70). From that year the Society's annual talks and reports were quickly rebranded as 'Excavations on the site of the Romano-British town of *Calleva*' rather than at Silchester, and most of the rest of the archaeological world followed suit. However, two small sub-disciplines still held out against the tide of opinion: Arthurian studies and numismatics.

The identification with *Caer Segont* had provided Silchester with several mythological associations, such as being where Constantius, father of Constantine the Great, had died (Nennius, *Hist. Brit.* 25), let alone where the coronations of both Constantine III and King Arthur had been held (Geoffrey of Monmouth 6.5 and 9.1). To this day these associations have not entirely disappeared amongst the uncritical legions of Arthurian enthusiasts, where the name Excalibur has been interpreted as a derivation from '*Ex-Calleva*', and where the sword is imagined to have been drawn from the ogham stone discovered in 1893 (Gidlow 2010; Zenner 2008).

In numismatics two aspects led to reluctance to drop the *Caer Segont* identification. First, a series of coins had been found with 'SEGO' inscribed upon them, which 'naturally' could be ascribed to the Segontiaci. Mid-nineteenth-century narratives by numismatists like Beale Poste envisaged a series of Belgic colonies in southern Britain, the Segontiaci amongst them, who had surrendered to Caesar (Poste 1861, 70, fig. 1). Some of the SEGO coins had been found in the Thames Valley, which was understandable if *Caer Segont* was at Silchester. Nowadays the coins still remain unexplained; however, the findspots multiplied and now have more of a lower Thames and Kentish distribution. The coins also are clearly related to those of Tasciovanus' coin series rather than those of a separate tribe or authority. Whether SEGO represents a place or an individual's name is not known. The series has most recently been reappraised by Holman (1999).

Secondly, the name CALLE was inscribed on issues of Eppillus. In the early twentieth century the distribution of these coins was far more easterly rather than Hampshire-based. To explain this Curwen wondered if there might be two towns called *Calleva* in Britain, Silchester being one, but Bigbury near Canterbury being the other. He considered this to be an obvious home for the Belgic king of Kent as he then believed Eppillus to be. Canterbury's name, *Durovernum Cantiacorum* 'fortress by the alder-swamp of the Kent-men' would then be a nice contrast to *Calleva Cantiacorum* 'the city hidden in the woods of the Kent-men' (Curwen 1937).

For now, in the early twenty-first century, the identification of the town seems secure and uncontested. The Antonine Itineraries and inscriptions mean we are happy to call Silchester *Calleva* of the Atrebates. Caesar's otherwise unknown peoples still await a home.

CHAPTER 3

PAST FIELDWORK AT *CALLEVA*

While the modern excavations of Fulford (1975–present) and the earlier campaigns of the Society of Antiquaries are well known (1890–1909), they are but a fraction of the many surveys, excavations and records that have been undertaken at the site since observations began. This chapter chronicles that earlier work, which from the mid-eighteenth century has led to plans which have been digitised within this project. It adds significantly to Boon and Hingley's accounts of early work done at the site (Boon 1974; Hingley 2012).

THE EARLY ANTIQUARIANS

Our earliest known visitor was King John on 19 May 1215, travelling the long way round from his hunting lodge in Freemantle, near Kingsclere, to Winchester; this was only a few weeks before he went on to meet the Barons at Runneymede (Hardy 1833, appendix). Thomson (1924, 101) mused about what the King felt, seeing the ruins and how all great powers fail, just before his capitulation to the Barons and signing of the *Magna Carta*, but beyond the royal itinerary we know nothing of King John's thoughts.

The earliest recorded find, in 1283, not unsurprisingly comes from a frustratingly incomplete early reference. In the nineteenth century, albums of colour images of antiquities or 'archaeological sites', as they were starting to be called, populated the market. Within one, in amongst the myths and legends, it was relayed that 'Constantius, it is pretended, died and was buried here, without the walls; and a manuscript chronicle in the College of Arms tells us that his body was found there in 1283' (Wright and Fairholt 1845, 150). As they said, probably some remarkable discovery had been made there at the time, perhaps from one of the cemeteries surrounding the site. The unnamed source has yet to be located.

John Leland (1503–52) is our first named antiquarian to visit the site. Building on his knowledge gained from reading in the libraries of the monastic houses shortly before the Dissolution, he developed an interest in topography and antiquities. His notebooks collated his own observations with the records and charters he had seen in the libraries. Alas, the resources he assembled for Silchester, which he visited in 1541, were meagre, merely providing a description of the oak-covered walls. However, he did include what is believed to be the first description of a cropmark (Fagan 1959): 'There is one straung thing seen ther that in certen partes of the gound withyn the Waulles the corne is mervelus faire to the Yee, and ready to shew perfecture, it decayeth' (Leland 1754, VI.49).

William Camden (1551–1623) elaborated on Leland's work, bringing it together with his own research and maps of England by Saxton and Norden, to create his monumental *Britannia*, a complete survey of Great Britain and Ireland. First published in Latin during the highpoint of the Elizabethan age, it was translated into English by Holland as the crowns of England and Scotland came together. He wrote significantly more than Leland on Silchester but followed the same themes describing the oak-covered walls and the cropmarks of the roads within:

> These walles take in compasse about two Italian miles… And before the wals westward, where is a plaine, there lieth a banke of a great length, raised and cast up for a defense and fortification. The site of this old citie containeth about fourscore acres of ground within, which being a soile ploughed up and tilled, are divided into corne-fields, with a little grove in

> the West-side: but on the East, neere unto the gappe in the wall, there standeth a Farme-house and a pretty Church more lately built …
>
> This is found by continuall observation (as I have learned of the inhabitants of this place), that although the ground bee fertile and fruitfull inough, yet in certaine places crossing one another, the corne doth not thrive so well, but commeth up much thinner than else where, by which they suppose the streets of the citie went in old time. There are heere daily digged up bricks such as we call Britaine-bricks, and great store of Romane coine which they terme *Onions pennies*. For they dreame that this Onion was a Giant and dwelt in this citie. There are digged up also many times inscriptions, of which the unskilfull rurall people envie us the having. (Camden 1610, 271)

In terms of detail he was the first to mention the Outer Earthwork to the west beyond the Roman walls. Amongst the many inscriptions, only one was reported in detail by Camden, the tombstone to Flavia Victorina (*RIB* 87, now in Cambridge) found in 1577 just to the north of the town.

John Aubrey (1629–97) had varied interests spanning writing gossipy biographical sketches of Elizabethan notables to researching the antiquities and natural history of Surrey and Wiltshire. His Wessex study, largely completed by 1671, was only posthumously published as a *Natural History of Wiltshire* in 1847; but within it his fifth chapter on soils discussed the phenomenon of cropmarks, ranging from his misguided notion that fairy rings were due to vaporous gasses from the ground, to a relayed conversation about the cropmarks at Silchester:

> The right reverend father in God, Seth, Lord Bishop of Salisbury, averres to me that at Silchester in Hampshire, which was a Roman citie, one may discerne in the corne ground the signe of the streetes; nay, passages and hearthes: which also Dr. Jo. Wilkins (since Lord Bishop of Chester) did see with him, and has affirm'd the same thing to me. They were there, and saw it in the spring. (Aubrey 1847)

His *Monumenta Britannica* remained largely unpublished in the Bodleian until recently, but also contained a number of other observations of Silchester, including noting erroneously that the 'walls of the city do make an oblong right-angled' (Aubrey 1980–82, 428–9, 436–41, 680, 973).

Thomas Hearne (1678–1735) was another notable antiquary residing in Oxford. He gained prominence for his work as an editor of important early editions of various chronicles, including volumes by Leland and Camden. His interest in nearby Silchester came partly from the debate over the name of the site (he mistakenly thought the best candidate for *Calleva* was Henley), but also from individuals telling him about all the coins, hoards and other discoveries that were being discovered in the fields from 1706 onwards (Hearne 1885, 165; 1889, 361, 438; 1898, 359–64, 368). He finally visited the ruins in 1714, writing up his journey in his diaries; critically checking his visual observations against earlier authors' descriptions. As with Camden, Hearne noted the cropmarks and also the Outer Earthwork on the western side of the town:

> Before the west gate, there is at a considerable distance an Agger, or raised work, that was made for defence of the city, when it was besieged on that side, as there is another raised work or mount on the north-east side, made also upon the same account when the siege happened from the enemy that lay on Mortimer's heath. (Hearne 1813, 188)

Hearne imagined the south of the city to have been of some import, associating it with a monument to Constantine, whom he believed to be the founder of the site. This idea was perhaps established in his mind by mention of a recent discovery: '… not far from the South Gate, in the south field, as they term it, they found not long ago a tessellated pavement, very large, but miserably broken, which I suppose was an ornament of the principal room of the palace …' (Hearne 1813, 189). A plausible location for this mosaic, dug up by unnamed excavators, would be in House VIII.1 close to the *Mansio*. These excavations had not just been taking place inside the town, but also outside the walls, revealing inhumations:

> As I was walking on the east side of the wall in the trench, just under the wall, I came to a tumulus or barrow, in one part of which was they were digging in the year 1713, they found the head, skull, and bones of a man, 9 feet in length, which they think there (as is usual with the vulgar on such occasions) to have been the bones of a gyant. (Hearne 1813, 195)

The Revd Robert Betham (d. 1719) was appointed rector to Silchester in 1698. Educated at St John's, Cambridge, he settled in the village for twenty years, building the rectory and within it a large library. He was probably responsible for many of the early excavations, and had certainly himself accumulated a large collection of coins which he had shown to Hearne and others. Unfortunately he met an untimely death, murdered and thrown into the Fleet ditch in London in 1719, especially so since 'he was preparing an account of the Roman city at Silchester, which was lost by his untimely death' (Urban 1839). Much of his library was bought up by Principal King of St Mary's Hall, Oxford for Sir Thomas Sebright, but if Betham's papers for his account were amongst them it is unlikely Hearne would not have come across them as he knew Sebright's collection well (Gough 1780, 185; Hearne 1898, 368; 1906, 70, 97, 171, 299; 1915, 455).

William Stukeley (1687–1765) was perhaps one of the last great antiquarian travellers across the British landscape, his *Itinerarium Curiosum* in many ways a counter-reaction to the increasingly fashionable alternative of the continental Grand Tour (Sweet 2004, 166). He visited Silchester on his journey tracing *Iter* VII from London to Chichester, during which he observed the solar eclipse of 1724 (though curiously the plan of the town in his volume, unlike his drawing of the Amphitheatre, is dated to two years earlier). On his visit he saw the collection of the by then late Revd Robert Betham (Stukeley 1776, 178). While his literary description provided good observational detail, particularly of the Amphitheatre which he purported to have discovered, his representation of the site was as a rectangular fortress with two opposing gates. This significant distortion of the shape of the city is all the more curious given the detailed land boundaries within and around, all of which are broadly correct. He even identified a gate leading out towards the Amphitheatre which was not to reappear on any other maps for a century (though he neglected another on the southern side) (Joyce 1876b, 413). The detailed interior and exterior leave no question that he walked around a considerable proportion of the site (*contra* Boon 1974, 24), in which case it would have been clear the Town Wall did not have right-angle corners to it. Nonetheless, he projected on to the site the classic playing-card shape of a Roman fortress which in his mind was what the site was meant to be. 'Men willingly believe what they wish to be true' (Caesar, *BG* 3.18); he saw what he wanted to see and had it engraved accordingly.

Stukeley's plan had not been the earliest of the site, and certainly was not the most accurate. Betham's plans are lost, but an earlier estate plan is known to have existed as well. By 1653 a map showing the correct shape of the city had been drawn up, though it would seem only in outline. This was observed by Boon in the estate office of Stratfield Saye which then owned the land (Boon 1974, 24); though it appears on an inventory of their estate plans in 1932, it can no longer be traced amongst the archives, which have now been split between Stratfield Saye, the Hampshire Record Office, the Museum of English Rural Life and the University of Southampton.

THE EARLY EXCAVATORS

If the details of the seventeenth-century campaigns are lost to us, the eighteenth century sees the first surviving records of 'archaeological' campaigns initiated with the intention to plan, record and recover details.

John Stair (1708–82) was the first to create a plan of the interior of the city, though he was by no means a gentleman antiquarian. His interest must have begun when a teenager, as many years later his homonymous schoolmaster son said his father had been collecting for 60 years before his death (Chandler 1821, 19). During some of these early years he worked in the service of Betham's successor-but-one at Silchester, John Paris (Rector 1726–42), a former Fellow of Trinity Cambridge. The job certainly would have gained him familiarity with the site, and maybe with Betham's collections. His penultimate year there, 1741, was a harsh winter followed by a long dry summer, and it was in this year that Stair drew his own detailed plan of the site from the cropmarks (Strutt 1779). Upon Paris' death Stair moved to Aldermaston where he became a cobbler then inn-keeper (Boon 1974, 23), and he began his excavations, continuing from the early 1740s through to at least 1752, and quite possibly much later. These were perhaps the first methodical investigations on the site and resulted in the first clear plan of the walls, roads and

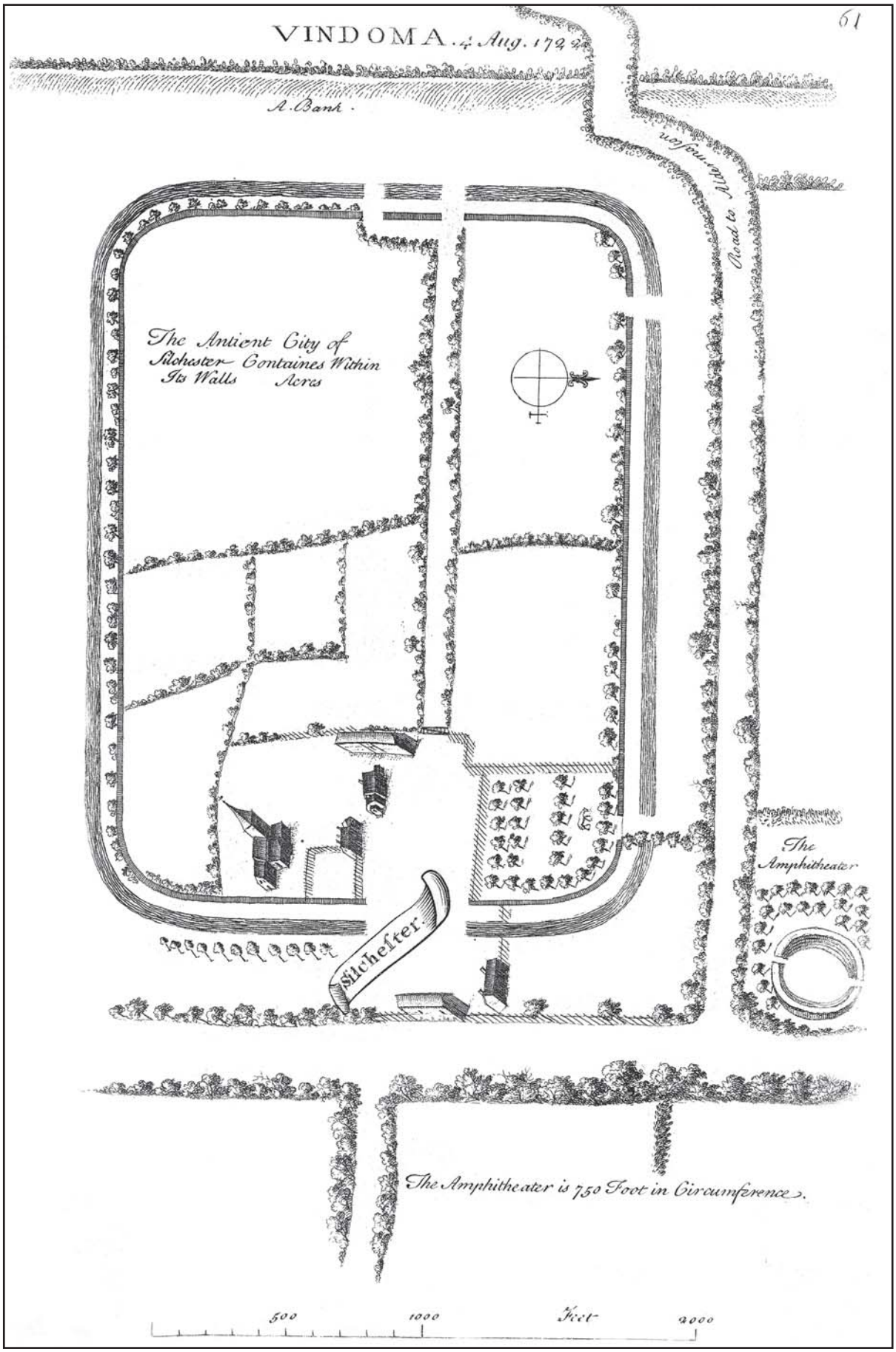

FIG. 3.1 Stukeley's map of 'Vindoma' 1722 (Stukeley 1776, Tab. LXI).

Forum. They were described a century and a half later as 'random diggings' by Fox (1899b, 80), remarkably unkindly since, from what we do know, Stair appears to have set about a clear targeted campaign of work to establish the street pattern.

> The method taken by Mr Stair, in order to discover where the streets formerly lay, was by observing for several years before the harvest those places, in which the corn was stunted, and did not flourish as in other parts. These were very easily distinguished in a dry summer, and run in strait lines crossing one another, as they are drawn in the plan. Moreover, by spitting the ground, and often digging it up, he found a great deal of rubbish, with the plain ruins and foundations of houses on each side of these tracts. Whereas in the middle of the squares nothing of the nature appeared, and the corn usually flourished very well. The ploughmen also confirmed the same, who found the earth harder, and more difficult to be turned up, in these tracts and near them, than elsewhere. (Ward 1748, 607)

We also discover that he had a good understanding of stratigraphy. Stair appreciated that there were earlier and later buildings, discovering the foundations of others beneath the predominantly late Roman buildings he was finding. Some considered these were remains of the pre-Roman town:

> This conjecture is almost rendered a fact by the discoveries of Mr Stair, who in digging under the old buildings, and taking up the Roman pavements, with their foundations, discovered other foundations of an older date, and of different workmanship, composed of rough flint Stones, and gravelly mortar. What confirms the conjecture of these being the works of the ancient Britons, is, that British coins have been found there, among which is one of gold, and another of silver, well preserved, now in the possession of Mr Stair. (Chandler 1821, 3)

This is remarkable given these excavations pre-date the work of James Hutton and William 'strata' Smith who introduced the concept of stratigraphy into geology in the late eighteenth century. Stair's work was extensive and prolonged, building up a private collection of more than 2,000 British and Roman coins, maximising recovery by sieving the soil (Chandler 1821, 19).

One of his main areas of activity was around what we now know to be the Forum. He uncovered the 'black marble' dedication to 'Hercules Saegon …' (*RIB* 67), from a depth of 1.2 m, in the northern end of what we now know to be the Basilica (Ward 1744–5). He then partly uncovered the building, identifying it as a market square since there was an open area within the middle of it. A longer description of some of his finds was preserved by Gough, Brayley and Britton:

> In Gough's additions to Camden, mention is made of a person named Stair, who formerly kept a public-house in the neighbouring village of Aldermaston, … 'had a great collection of coins, both brass and silver, from Julius Caesar to the latest Emperors, found hereabouts and some gold and silver, British: two onyx seals; one with a cock picking out of a cornucopia; the other only ZACP. Of the Roman coins found here, one of the rarest is a gold Allectus; rev. Apollo, with a whip and globe; at his feet, two captives, ORIENS AVG. ML. and gold ones of Valentinian and Arcadius. One spot, called Silver-Hill, where are foundations of large buildings, has yielded a great quantity of silver coins. In or near the Temple (Forum) above mentioned, Stair told me, he found twelve or more pedestals, and fragments of stone statues, too imperfect to bring away: he shewed me the small alabaster head of a man, with curled hair, about three inches high, and said that many copper penates had been found: he had a sword with two serpents encircling the hilt, found within the walls.' (Brayley and Britton 1805, 248–9)

John Ward (1679–1758), at the time the Gresham Professor of Rhetoric, visited the site with the surveyor John Wright, and commissioned the latter to draw a plan developing Stair's 1741 drawings to create a new map which he then published, shamelessly neglecting to credit Stair on the final version (Ward 1748). By way of contrast, years later when the antiquarian **Joseph Strutt (1749–1802)** visited Stair and reported on his works he took pains to make clear the proper attribution of the work (Strutt 1779, 301). Both Stair's 1741 and Wright's 1745 maps were preserved in the King's Library, now the British Library (Kempe 1833, 123). However, the most detailed rendition of Stair's work appears on another drawing altogether, as a vignette in the top left corner of a one-inch-to-a-mile map of Hampshire, drawn up by Isaac Taylor in the first and failed attempt to win the Royal Society's prize-winning challenge of 1759 to map any county

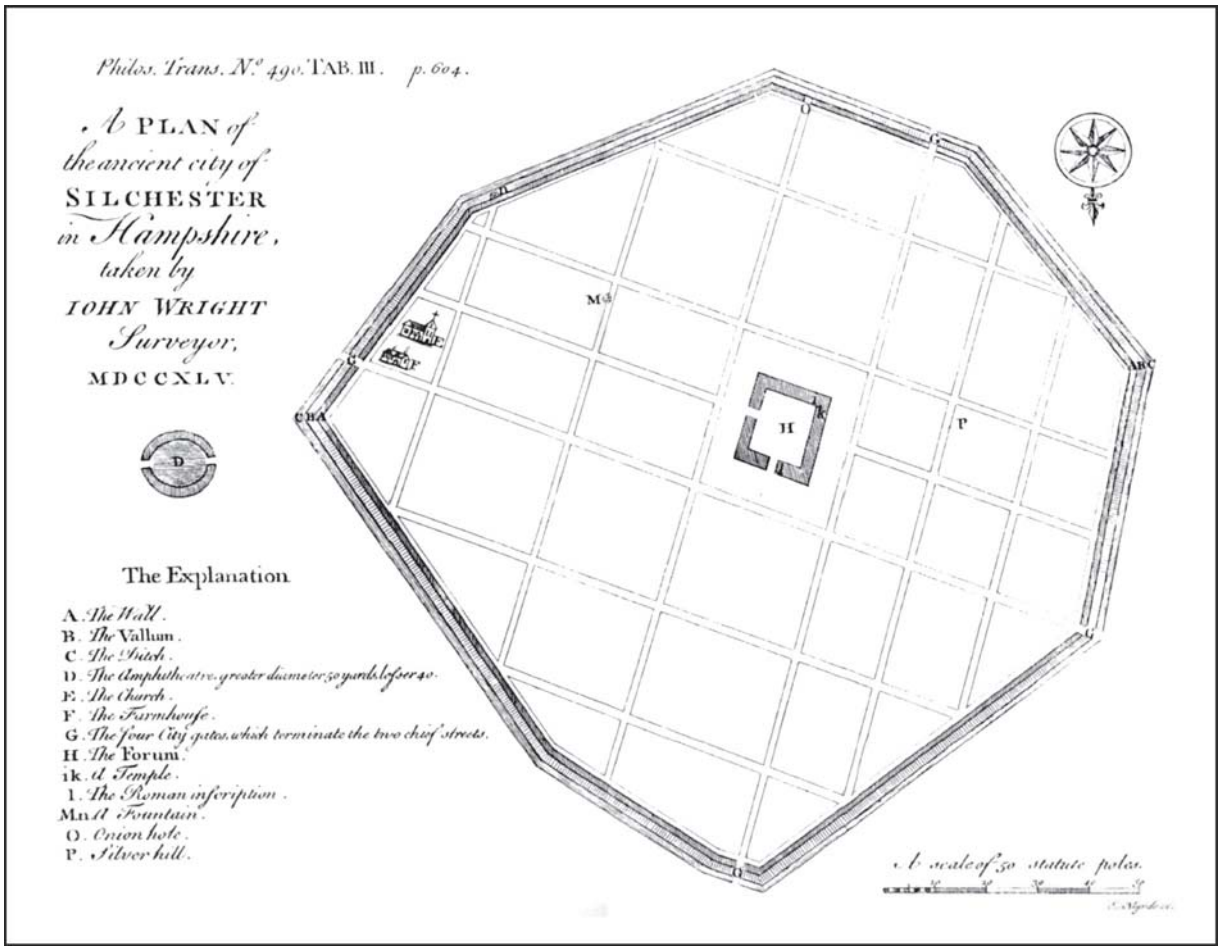

FIG. 3.2 John Wright's plan of 1745, based on John Stair's work (Ward 1748).

at this large scale (Taylor 1759). This plan shows that Stair's campaigns continued, excavating a number of partial buildings along the roadsides to the west of the Forum. On one corner a large number of coins were found, leading to the place being called 'Silver Hill', the building we would now call House XVI.3. Strutt had persuaded Stair to draw up an account of his many years' work at the site, to provide for the world a record of his diggings and a full account of all the coins he had recovered (Strutt 1779, 301). Alas, if ever written, it is lost to us now.

Thereafter there appears to have been a lull in excavations at Silchester, though it is clear that many people were still acquiring their own collections from the site. The Revd Thomas Powys, Rector of Silchester (1769–1809) reported finds from the field including an iron Roman Eagle which passed into the possession of the Bishop of Carlisle (Anon. 1789).

We largely know what was going on from a Basingstoke printer, Samuel Chandler, who collated scraps of information about the city, though the largest scrap by far was the unpublished research undertaken by a local dissenting minister, the **Revd Joseph Jefferson (1766–1825)**. Jefferson had been active in the area 1791–1819, when circumstances 'better to forget' meant he suddenly had to resign his ministry and move to the other end of the country. To these notes Chandler added the recollections of John Stair's son and others. Many people, it seemed, had established large collections by this date, including Mr Cloase, William Jeffries and Jefferson himself. While Chandler studiously avoided calling himself the author of the volume, but rather the compiler, an obituary of Jefferson made it clear it was based on the Reverend's manuscript (Chandler 1821; Anon. 1825). While relatively unknown now, it was a thoughtful summation of knowledge at the time for which Jefferson deserves credit, whatever the cause of his sudden departure and it becoming politic not to mention his name.

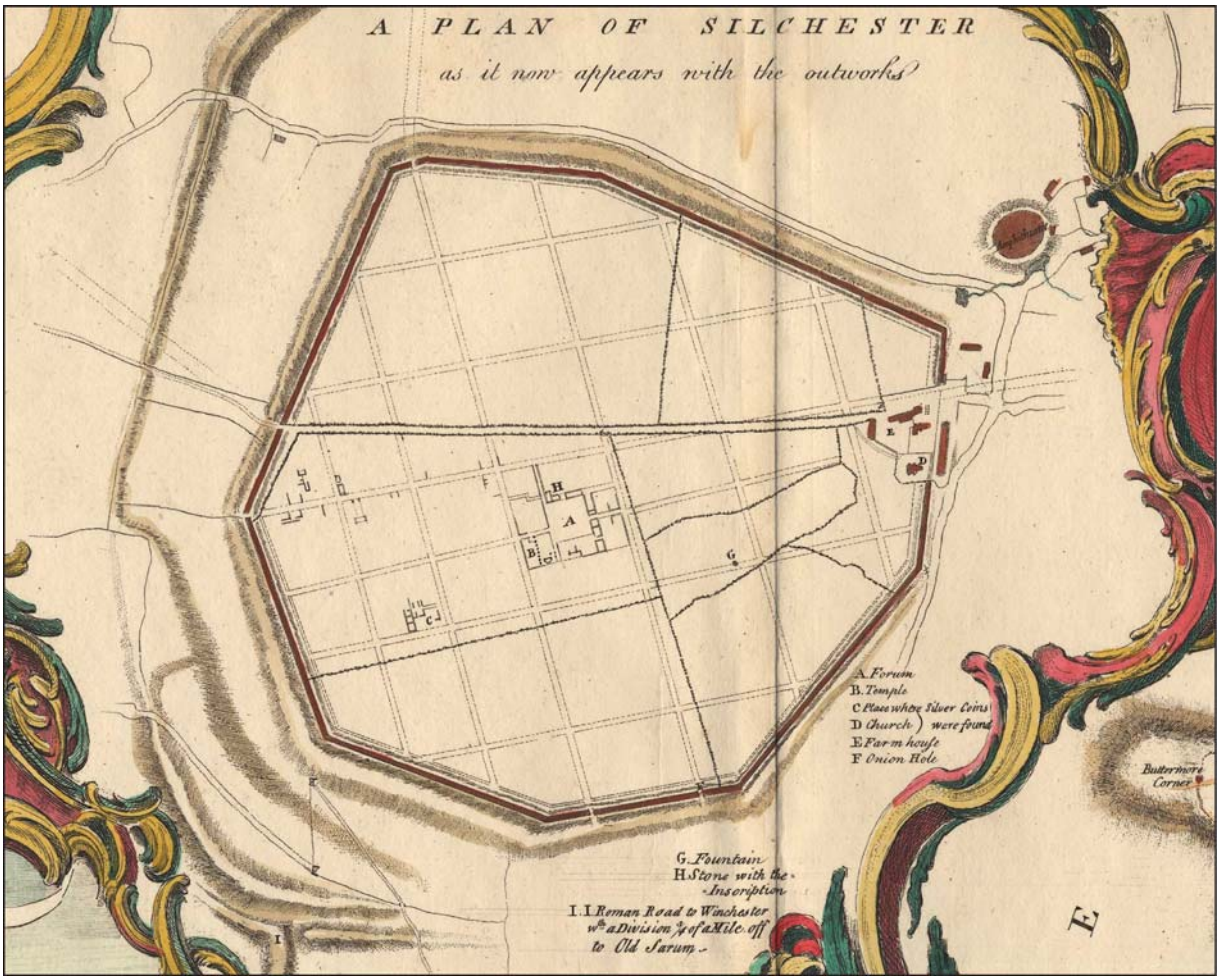

FIG. 3.3 Isaac Taylor's map of Hampshire 1759. Top left vignette showing Stair's excavations at Silchester. (Image © Martin & Jean Norgate 2003)

In terms of excavations following Stair, *c.* 1780 'a floor of mosaic pavement was discovered in a part of the area called Watch Field, by a person of the name of Curtis. The tesserae were of different colours and ranged in right lines. The whole was taken away by a gentleman who visited the place' (Chandler 1821, 20). Then in 1821 a hole was excavated near the East Gate, perhaps associated with one of the many buildings there: 'A space of about three feet square was excavated, and within the depth of three feet these reliquaries were found amongst ashes and fragments of bones, deer's horns etc.' (Bartlett 1854); otherwise little is known to have happened. However, in 1818 the site was visited by **Sir Richard Colt Hoare (1758–1838)**, who strayed outside his study area of Wiltshire into the neighbouring counties tracing the Roman roads. He, or perhaps his trusted topographical draughtsman Philip Crocker, surveyed the site, coming up with a slightly different plan of the outer earthworks to Taylor's. Particularly notable here is the record of the survival of an earthwork in the Rampier Copse, subsequently ploughed out.

In 1828 the Manor of Silchester was bought by Arthur Wellesley, the Duke of Wellington, adding it to his Stratfield Saye estate which had been acquired for him by Parliamentary trustees on behalf of a grateful nation following victory at Waterloo. The next year the **Revd John Coles (1787–1865)** was appointed Rector of St Mary's, and by 1833 was excavating the bathhouse of what we now know to be the *Mansio* (Fox 1899b, 84). Coles also embarked upon three or four further explorations. Hilton Price later observed that the phrase 'site of Roman villa' appeared close to the *Mansio* on some plans of the time. 'This was probably another of these excavations, and the baths and villa [were] well remembered by old inhabitants' (Hilton Price 1887, 275).

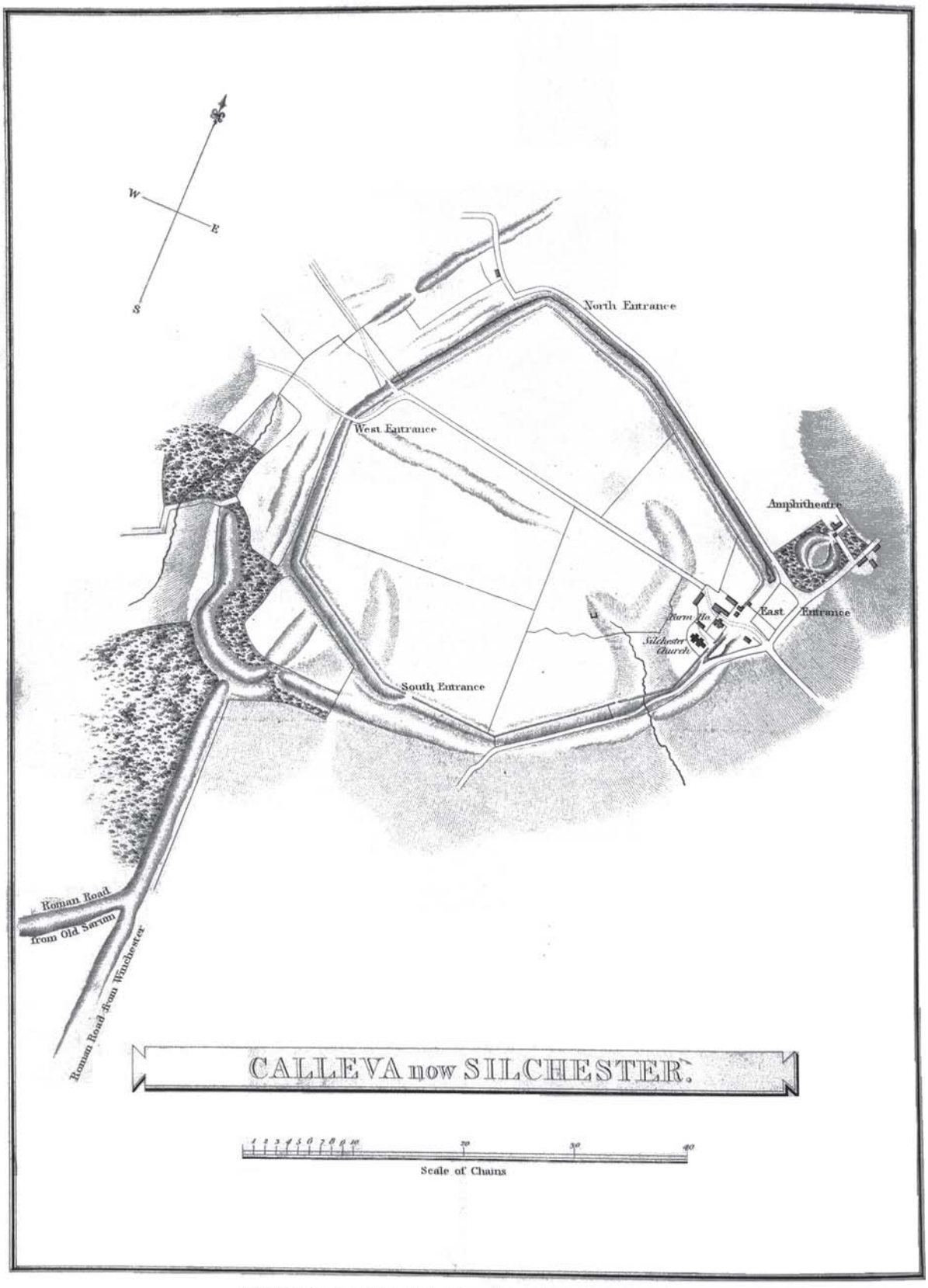

FIG. 3.4 Plan of 1818 by Sir Richard Colt Hoare (1821, 57).

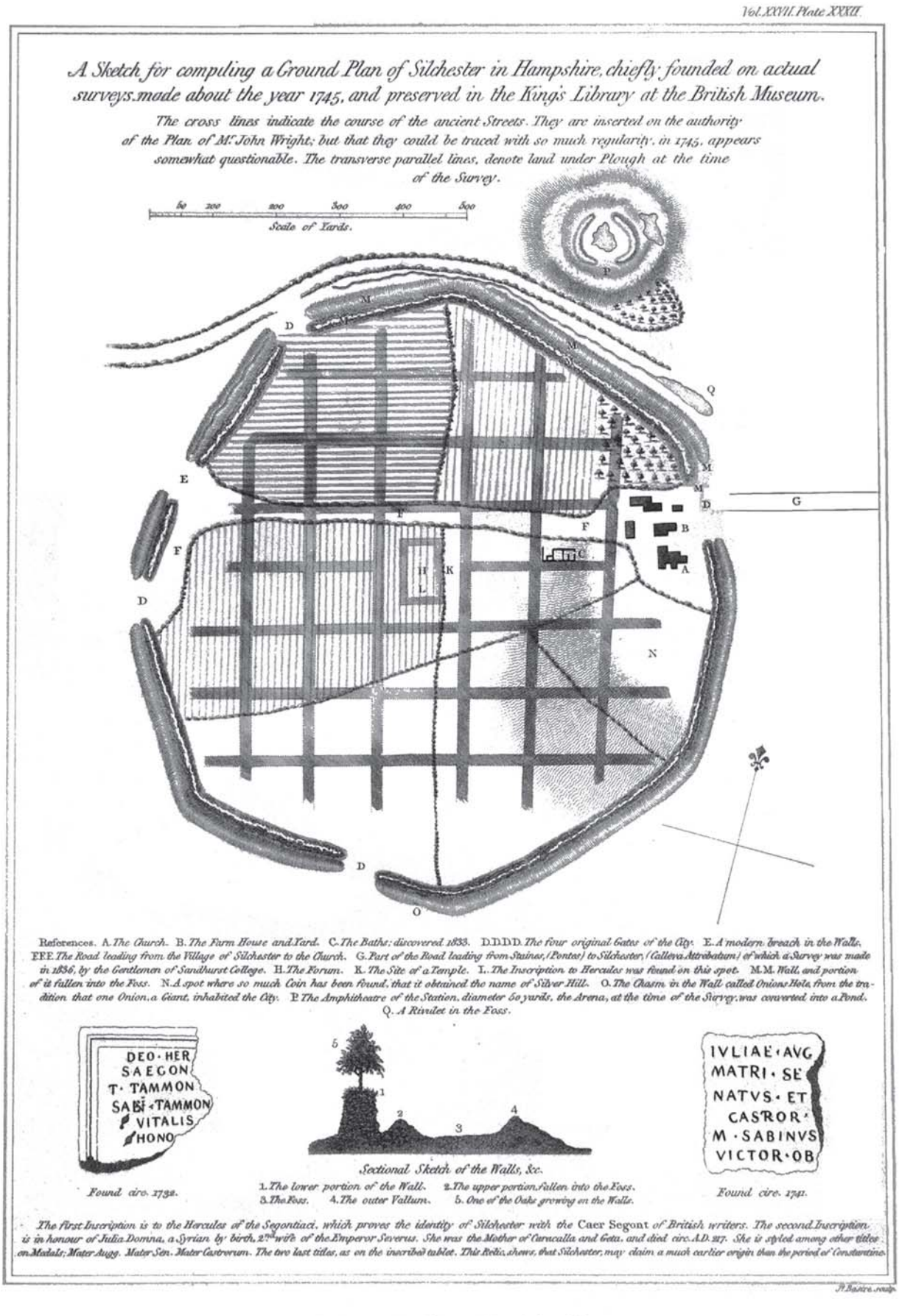

FIG. 3.5 Kempe's inaccurate elaboration on Wright's map of 1745 (Kempe 1838).

The excavations did not last long and were discontinued by order of the duke, who had been persuaded that the work was injuring his property. Coles instead turned his attention to other activities in the parish and went on to build the 'The Crown Inn' in 1837, now well known to most archaeologists who have ever worked or visited Silchester as the '*Calleva* Arms'.

Alfred John Kempe (*c.* 1785–1846) published plans in 1833 and 1838 purporting to summate existing knowledge (FIG. 3.5: Kempe 1838, pl. XXXII); they drew heavily on the earlier surveys in the King's Library, and added to them details of which fields were under the plough and the contemporary land-divisions. While acknowledging the actual polygonal shape compared to Stukeley's playing-card representation, Kempe similarly imagined the site as a military establishment with a *praetorium* in the middle rather than a market place or forum:

> If Mr Stair's notes are not antiquarian imaginings, the interior of Silchester was laid out nearly in conformity with that of a Roman camp, according to the description of Polybius. A broad centre street with two lateral ones crossed by an equal number at right angles. In the centre of the station are the foundations of a considerable building, probably the praetorium. Here were discovered portions of some large columns, and an altar constructed of brick. (Kempe 1833, 123)

Unfortunately in compiling his plan he failed to observe that the north point on Stair's and Wright's maps pointed down and not up resulting in an inversion and confusion of a lot of the detail. This can be seen from a comparison with Taylor's more detailed map of 70 years earlier. Taylor (1759) has the silver coin find on the west, Kempe on the east; Taylor has a hypothesised 'temple' to the west of the Forum, Kempe to the east; Kempe also totally mislocated Coles' excavation of 1833 (see discussion of the *Mansio* bathhouse in Insula VIII). In general, Kempe's map has to be taken as very poor derivative cartography, and the error is certainly not the engraver's as the original sketches are in the archives of the Society of Antiquaries. Unfortunately this map has been used as evidence through the years for the location of Coles' excavations, and so the mistakes have been perpetuated in various sources down to the twenty-first century (e.g. Neal and Cosh 2009, 222: mislocating the baths).

Henry Maclauchlan (1792–1882) provided the first detailed plan of Silchester within its topographical setting. He had spent a career in cartography, at first with the Royal Corps of Military Surveyors, and later briefly with the Ordnance Survey. It was after his retirement in 1844 that he began work on what were to become his notable archaeological legacies. He initially surveyed some hillforts close to home in Cornwall, but later went on to survey the area around Silchester alongside conducting work for the Duke of Northumberland in North Yorkshire. His archaeological contribution reached its zenith in his landmark survey of Hadrian's Wall in 1857–64 (Charlton and Day 1984).

The occasion for the work at Silchester was in preparation for a visit to the region by the Royal Archaeological Institute in 1850. When it duly happened Maclauchlan gave a lecture to them on the Friday evening in Oxford discussing his survey, the adjacent works and entrenchments. On the following day the party boarded a specially hired train to the ruins.

> They alighted a short distance from the Mortimer station, and under the able guidance of the Revd E. Hill, repaired to the site, easily attainable from that place. The visitors, upwards of 100 in number, were very courteously received by Mr Barton, the occupier of the farm, with whose obliging permission the expedition had been arranged. After a hospitable welcome at the Manor House, and the inspection of numerous antiquities, coins etc. collected by Mr Barton, the party dispersed to examine the most striking features – the amphitheatre, gates, lines of streets, to which their attention was drawn by the Revd W. Gunner. They also examined the vast earthworks existing in the neighbourhood. (Anon. 1850, 316; see also Anon. 1846a for Barton's collection)

The survey was most important for highlighting, in addition to the Town Wall, the outer earthworks and the linear entrenchments running off to the south (Maclauchlan 1851). His work was very accurate, drawing upon the 1841 Tithe Map (Hants. Record Office 21M65/F7/209/2). His hachures interpreting the earthworks remain the foundation for those shown on

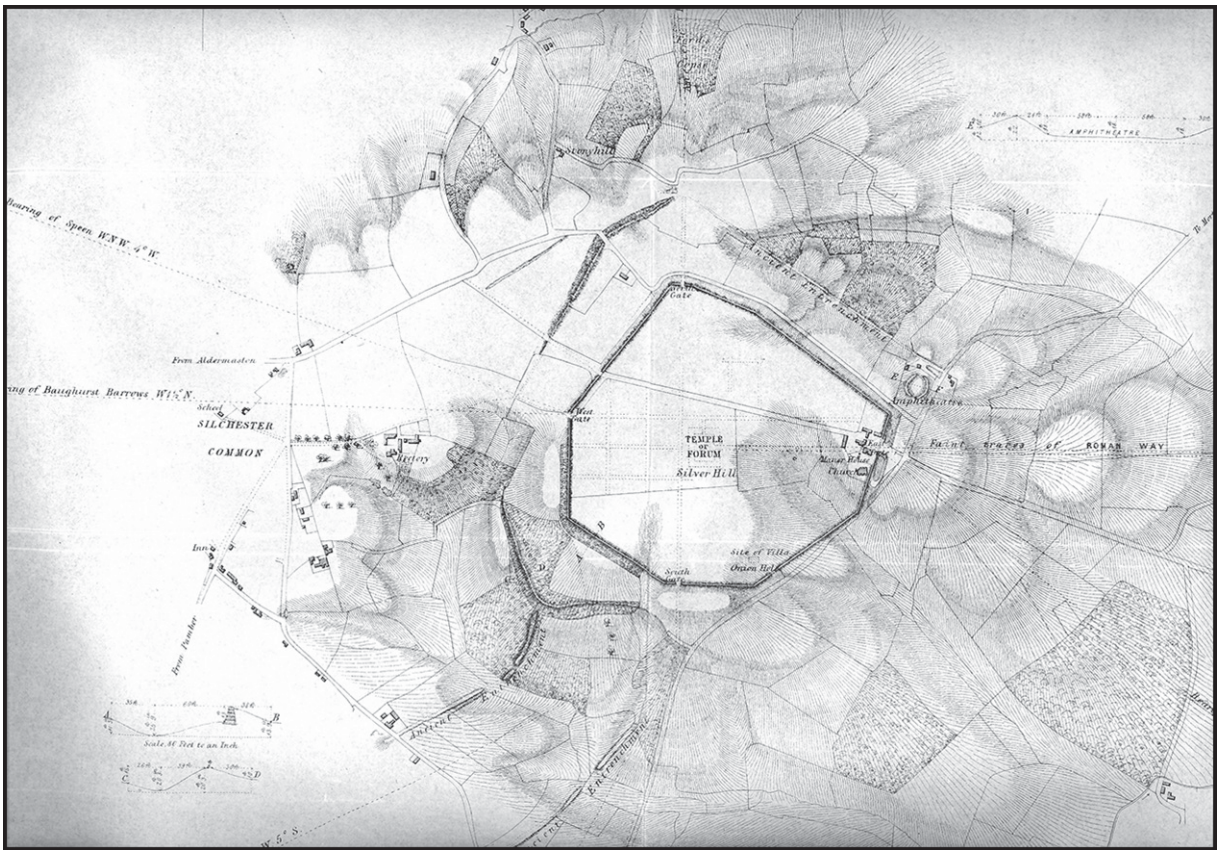

FIG. 3.6 Henry Maclauchlan's map of 1850 (Maclauchlan 1851).

Ordnance Survey maps for a century until Philips resurveyed the site in the 1950s. Significantly he observed that there was no evidence then that the outer earthworks ever formed a complete circuit; nothing survived obviously to the south-east (Maclauchlan 1851, 230).

Curiously, a group from the Bristol and Gloucestershire Society touring the site many years later made a reference in their report of the visit to Maclauchlan excavating in 1851 (Anon. 1898), and he himself stated that the Revd Coles had given him permission to dig for remains within the glebe lands (Maclauchlan 1851, 238 note 8), but I am unable to trace any evidence of what he was investigating, though the context suggests it may have been an attempt to trace the roads leading from Silchester, particularly to the west, if he dug at all.

JOYCE, MONRO AND LANGSHAW

The Duke of Wellington died in 1852 to be succeeded by his homonymous son, the second Duke of Wellington (1807–1884). Within a few years a new rector was in post at Stratfield Saye, and there was also other change afoot in Silchester. Mr Austin, the sitting tenant, died, and his collection of artefacts passed to the duke, perhaps stirring his interest. Shortly thereafter the duke encouraged the rector, the **Revd James Joyce (1819–1878)** to make 'arrangements for systematic excavations' (Joyce 1867b). Joyce came to the task with a remarkable degree of diligent note-taking. His bound site notebooks and sketchbook, preserved in Reading Museum, contain exceptionally detailed records of the excavations and demonstrate his understanding of stratigraphy. He considered the role soil formation and earthworm activity had in the subsidence of floors, and he played host to Darwin who carefully examined his sections (Darwin 1881, 201–21; Evans 2009, 482–4). An affectionate appreciation of Joyce is provided by Boon (1974, 24–6).

The excavations commenced in 1864 and continued until 1878, when, after struggling with a couple of years of illness, Joyce died. While he was diligent in presenting his work in lectures to

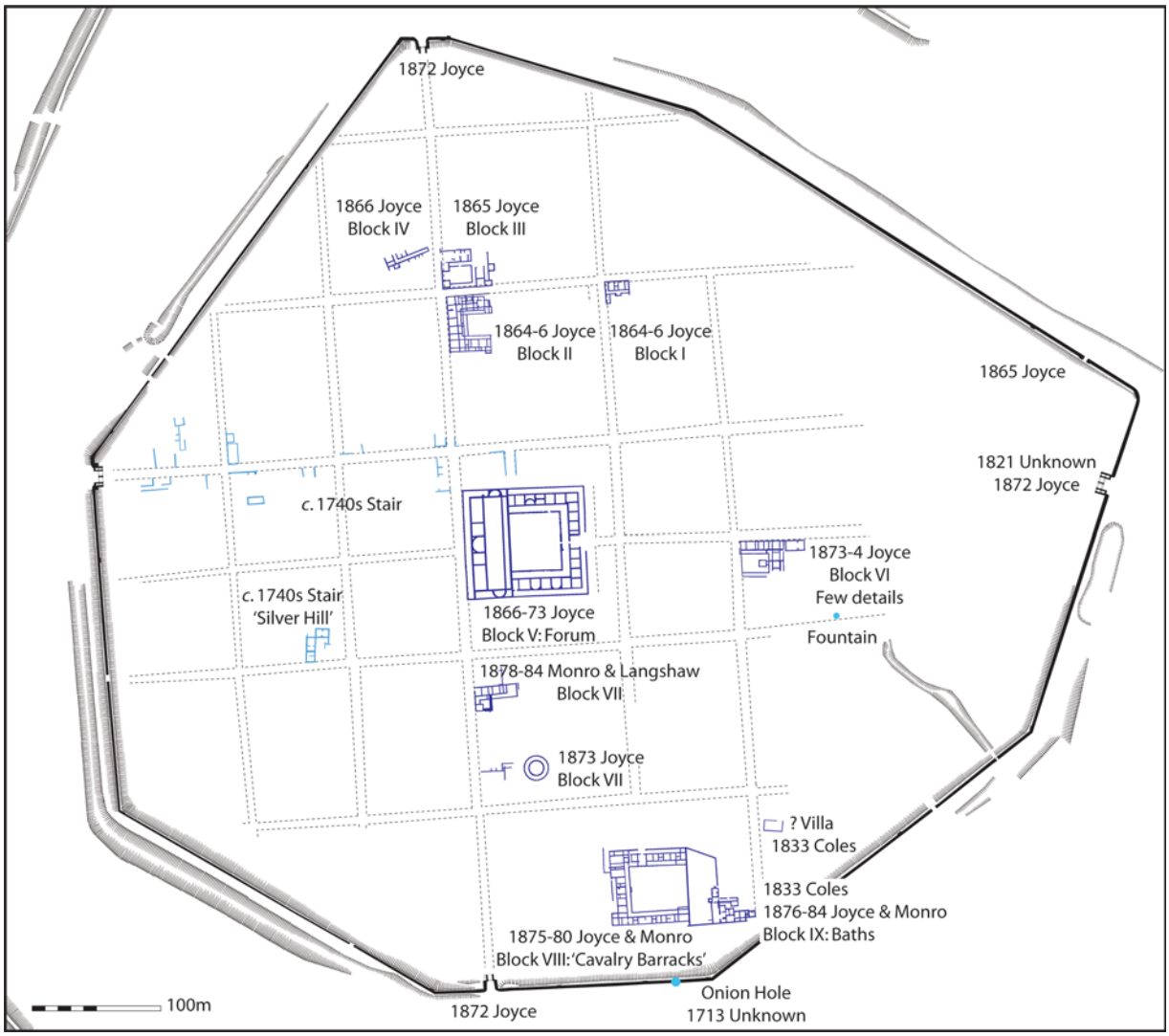

FIG. 3.7 Excavations before the Society of Antiquaries' work.

the Antiquaries and other societies (Joyce 1865; 1867a; b; 1873; 1876a), only one of the papers was fully published during his lifetime, the others were posthumously drawn from his notes (Joyce 1876b; Joyce 1881a; b). Alas, many of his smaller excavations were never reported on in any significant detail. His largest opening was that of the Forum-Basilica, which included the discovery of the iconic 'Silchester Eagle' now in Reading Museum, though he also excavated the Town Gates and buildings in Insulae I, VIII, XXI, XXVI, XXIII and XXXIV. During these works a mosaic from House XXXIV.1 was lifted and moved to adorn the duke's house in Stratfield Saye. The campaigns were very long and continued, sometimes, into the winter. In 1999, from a pit in Insula IX, the remains of a large stove were uncovered which probably came from Joyce's excavations (Tootell *et al.* 2005).

In terms of interpretation, Joyce declined to be drawn on the name of the site, *Vindomis* or *Calleva*, but he did ponder upon the origins of the site and the possible involvement of the legions. Because of its irregular shape he considered it to be a British settlement or camp in origin 'but it was occupied, undoubtedly, at an early date by the Romans. The internal portion of the town was subdivided into rectangular forms … From the fact of there not having been found tiles in Silchester inscribed with the name of any legion, it [is] doubted whether it was ever occupied as a military station' (Joyce 1865).

After Joyce's death, the campaigns continued for another seven years until 1884. These were

initially led by the **Revd Horace Monro (1831–1901+)**, Joyce's successor at Stratfield Saye, but after a while he found the travel to and from his parish 'too great to be constantly in attendance to watch the old men at the excavation, at his suggestion the late Duke of Wellington asked the **Revd Thomas Langshaw**, M.A., rector of Silchester, a careful archaeologist, to supervise the work for him, which he has since done with much zeal' (Hilton Price 1887). Their campaigns finished off some of Joyce's excavations and opened three new areas. Monro's most notable achievement was the completion of the excavations in Insula VIII of the building we now call the *Mansio*, though at the time this was imagined to be a cavalry barrack building (Fox 1899b, 80), and the Antiquaries were to call it the *Hospitium* (Fox and St John Hope 1894, 211, 224). Later they probably investigated a large area to the east of the *Mansio* as indicated on a map in an early Antiquaries' report (Fox and St John Hope 1893a, 571).

The scale of the work attracted public attention. Many local societies, such as the Newbury District Field Club and the Wiltshire Archaeological Society, came to visit during Joyce's campaigns, perhaps stimulated by his touring and lecturing (Chutterbuck 1884; Anon. 1871). This continued under his successors, for example with Langshaw showing around the Newbury District Field Club (Anon. 1886).

Monro and Langshaw's work was watched closely by a London banker, **Frederick George Hilton Price (1842–1909)**, who took a great interest in matters. As early as 1881, concerned at the lack of planning and recording, he had instructed the architect **Henry Hodge (b. 1824)** to make plans of the site and excavations, returning in 1884 to record the additional discoveries (Hilton Price 1887). Hodge, practising in London, had already gained some attention drawing architectural survivals and Roman ruins through the 1870s and in 1881–2 he was instrumental in recording some of the early Roman walls belonging to the London forum in Leadenhall.

By early 1884 the four-man labouring team that originally helped Joyce had dwindled to two, and efforts on the site were flagging. Along with two other gentlemen Hilton Price decided to see the ageing second Duke of Wellington.

> … he granted me permission to have further plans made, and undertook to employ some extra labour to supplement the two old men who, scrape the ground, and who were the remains of four, the other two having become effete; he further said he wished Mr Langshaw, who lived upon the site, to conduct all the excavations, and if we could undertake to supervise him and assist him when necessary with a few hints he would be obliged. This was agreed to, and the next day his grace called upon Mr Langshaw, and told him of our conversation, brought him copies of Mr Joyce's journals made by Mr Monro, and beautifully illustrated by Miss Monro, and promised that he should have a cabinet of coins to show to the visitors who came to see the remains; this was all carried out and things looked favourable for the future, when his lamented death put a stop to all further work. (Hilton Price 1887, 264)

Appeals to his successor and nephew, Henry Wellesley, the third Duke of Wellington, were met with hesitation and a disinclination to sanction any further work at the time.

THE ANTIQUARIES

Joyce had revealed the possibilities of the site, and the Forum lay open for visitors to stare and wonder at. Over the next few years a momentum built up to re-launch the Silchester excavations, but this time under the auspices of the Society of Antiquaries of London, with a team larger than the two ageing labourers Langshaw had had at his disposal. Hilton Price talked to the Society about the recent discoveries (effectively publishing Munro and Langshaw's work) while at the same time wishing 'to revive the dormant interest for the grand old city of *Calleva Atrebatum*' (Hilton Price 1887, 264). Perhaps it was the banker in him that envisaged working with the co-operation of the tenant, paying compensation for the land taken out of cultivation, excavating, mapping and then covering back up areas 'until the whole or greater part of the city should be placed upon the Ordnance map, which Mr Hodge has enlarged seven times for the purpose, and which would become a permanent record of the work done' (Hilton Price 1887, 265).

The idea was developed by **George Edward Fox (1834–1908)** and **William Henry St John**

Hope (1854–1919) into a full proposal. Fox was an artist and architect, while St John Hope had a strong interest in ecclesiastical architecture, but had also only recently begun what was to be a 25-year reign as assistant secretary of the Society of Antiquaries, the last to actually live in Burlington House, during which time he significantly broadened his interests. The research potential was sold on the advantages of it being a greenfield site, unlike Chester, Lincoln and Leicester, where only fleeting glimpses during building works had enabled the Roman cities to be seen (Fox and St John Hope 1889–91, 86).

Their 'memorandum on a proposed excavation of the site of Silchester, Hants.' was drafted, and they selected General Pitt Rivers, 'who has throughout most warmly supported the scheme', to approach the third Duke of Wellington in person and later present the memorandum to him (Fox and St John Hope 1889–91, 93). Pitt Rivers was the first Inspector of Ancient Monuments and of course an eminent archaeologist, but the connections between him and the duke ran deeper. First, the general was a relation of Sir William Pitt (1559–1636), principal officer of the exchequer under James I, whose family had purchased Stratfield Saye and accumulated the estate before it had been acquired by the Parliamentary trustees as the nation's reward to the victor at Waterloo. Secondly, the two were probably personally acquainted: **Augustus Henry Lane-Fox (1827–1900)** (who took on the name Pitt Rivers later in life from his uncle when he inherited his estate) was already a colonel in the Grenadier Guards by the time the young Henry Wellesley joined the Second Battalion after leaving Eton in 1865, and both retired from it in 1882. Whatever, the approach was effective. 'Not only has the duke been pleased to express his entire approval of this scheme, but he informed General Pitt-Rivers that he would give a site for a museum, and contribute towards its erection, and assist in defraying the cost of roofing in any remains of sufficient importance to be kept open' (Fox and St John Hope 1889–91, 94).

Not surprisingly, the banker, Hilton Price, adopted the role of treasurer for the Silchester Excavation Committee; he also went on to become the Society of Antiquaries' director in 1894 until his death in 1909. The initial season, it was thought, would cost around £100. At the 20 March 1890 meeting of the Antiquaries £25 was awarded from the Society's Funds, £25 from the Research Fund income, and £50 promised by a number of private donations: £10 from Hilton Price, £10 from Mr Minet, £30 from Lieut. Gen. Pitt Rivers (Anon. 1889–91, 120–1). In the first few seasons this figure of £100 per insula recurred in the money-raising campaign literature and was quoted in public lectures (Anon. 1891b); however, within a decade the actual funding sought had risen closer to £500 per season for the 20 or so men who were now employed for six months each year from May to November (Ditchfield 1899b).

Outreach was, of course, important for raising money. The excavations were visited by many groups over the years from as far afield as Bath and Birmingham, guided by Fox, St John Hope or Stephenson. **Mill Stephenson (1857–1937)** was the long-serving superintendent on the site and the person who really managed the workmen, himself having a particular interest in Roman coinage (M.S.G. 1937). Many of these societies wrote up their excursions, providing small additional details to those in the official published reports, as well as other colourful details such as where they had lunch (Anon. 1891a; c), or sharply noting how the lord of the manor had charged them sixpence to walk along the middle of the droveway to reach the excavations (Anon. 1895). Some used the dig as a model to inform the exploration of other sites, such as the Shropshire Archaeological and Natural Historical Society's intentions to excavate Wroxeter (Fox 1899a). In the first few seasons wooden models were made of the excavated areas, including the West Gate and 'church', just as Pitt Rivers had seen made of his own excavations, but soon mention of these at Antiquaries' meetings ceases (Fox *et al.* 1893; Fox and St John Hope 1891b).

In determining their methodology they sought to advance on the work of Joyce, though they were a little harsh in their critique:

> His account, though an admirable and important contribution to our knowledge of the site, was not of a sufficiently detailed character, as to the different structures, to entirely satisfy the requirements of the present time. The minor objects of antiquity receive, perhaps, somewhat undue attention, and so little value was placed on the architectural remains of both forum and basilica, that they were for the most part left by their discoverer to perish from exposure

> to rain and frost on the spit where they were turned up in the excavations. No adequate plans were published of the buildings, nor were sufficient illustrations given of their remains. (Fox and St John Hope 1893a, 540)

The practice they developed was to excavate an insula at a time. They numbered them from Insula I to XXXVII in more or less the order they excavated them. First, the external lines of each insula were traced, and then diagonal trenches were cut across the block. Where foundations were discovered the walls were chased so that complete plans could be established. During the excavation of Insula I they stated these diagonals were 4.9–5.2 m apart (Fox and St John Hope 1890, 734), though in the following season this was reduced to 4.3 m or less (Fox 1892, 263). Re-excavation of their trenches in Insula IX, dug in their fourth season, was undertaken by Fulford and Clarke (Fulford and Clarke 2002c); here it was observed parallel sets of trenches were a little under 4.0 m apart. In some parts of the site these exploratory trenches still show up in the geophysical survey data (FIG. 3.8); their visibility varies from insula to insula, but generally seems to confirm the stated strategy. The trenches from some of the seasons, such as 1905, are very clear; this may be explained by the remarkable depth of soil which was reported on that year, with some of the trenches being as much as 1.0 m deep rather than going just beneath the base of the plough-soil (St John Hope 1906, 162). The Antiquaries believed that they would

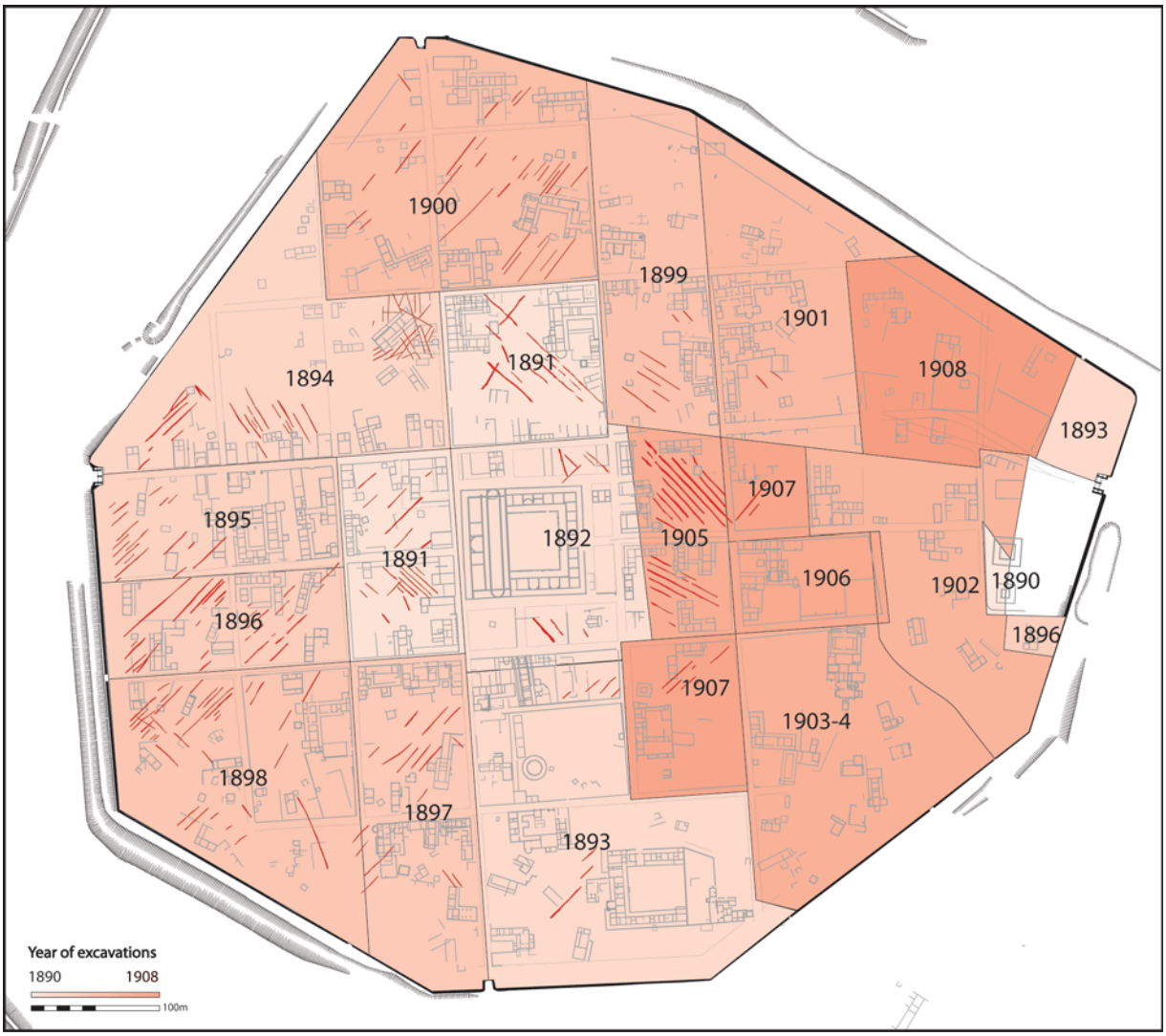

FIG. 3.8 The Society of Antiquaries of London's excavations: the areas covered each season and trenches revealed by the geophysics.

FIG. 3.9 Photographs of the original Great Plan by Henry Hodge, completed in 1909. Unrolled at the Society of Antiquaries of London.

probably be finding most of the buildings, but might be missing some rubbish pits and wells using this method (Fox and St John Hope 1890, 741); they did not realise they were missing the timber buildings which only really started to be recognised in urban archaeology in the second half of the twentieth century. Each year the plan from that season was transcribed onto Henry Hodges' Great Plan, still held at the Society of Antiquaries, to create what was envisaged to be a complete plan of a Roman city (FIGS 3.9–10; St John Hope 1909a). They were relatively tidy excavators, being careful to dig pits for their own rubbish in the middle of the roadways so as not to disturb more sensitive remains (Fulford and Clarke 2002c, 295).

The aspirations for finds recording were also admirable: 'All objects found must be properly labelled and registered, and the exact spot where found fully recorded. It is highly desirable that as far as possible everything should be retained and preserved on the spot in a proper museum, the nucleus of which already exists; but objects unique in character or special value might, with the noble owner's approval, be deposited in the British Museum, or elsewhere, for safety' (Fox and St John Hope 1889–91, 95). Alas these specifications were not lived up to and spatial information on the finds is singularly lacking. Given the leading lights of the excavations had backgrounds in architecture rather than as finds specialists, the emphasis on buildings and site plans was perhaps inevitable, even though they had criticised Joyce for letting piles of finds build up by the baulk edge. One wonders what the ageing Pitt Rivers, who valued the everyday object so highly, would have thought.

The excavations lasted from 1890 until 1909. In the first season the site was largely under corn

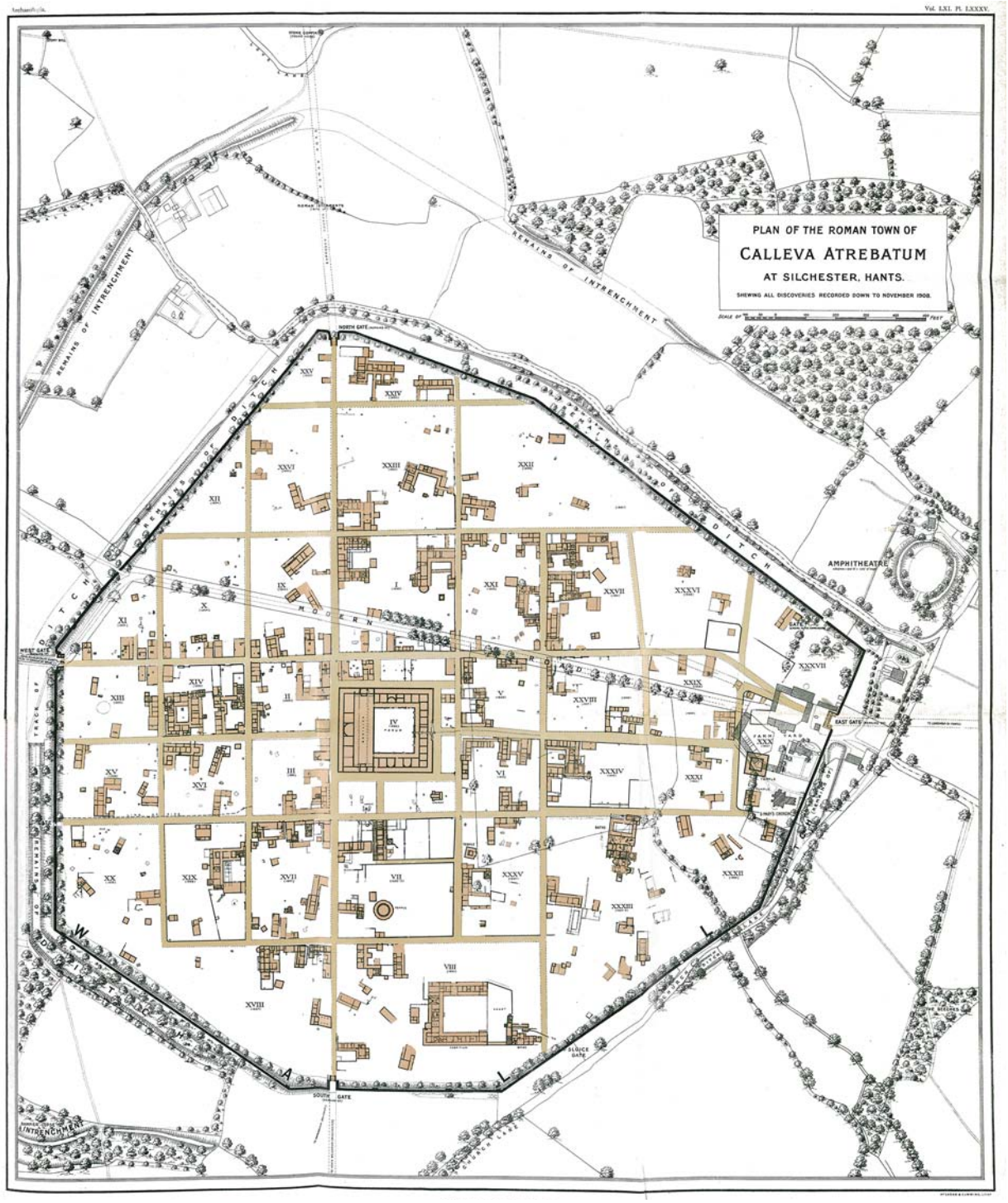

FIG. 3.10 Reproduction of the Great Plan of 1909, Henry Hodge (St John Hope 1909).

and peas, so the first works were devoted to the periphery, the North, South and West Gates (St John Hope 1890a), but thereafter insulae were dug gradually across the town until almost all had been explored. In 1907, with one season left in the interior to undertake, there were clear intentions of moving on to explore the cemeteries, ditches and other exterior features (Anon. 1908b). However, the report of the 1908 excavations, the last in the interior, was prefaced by the sad news of the deaths of both Fox and Hilton Price (St John Hope 1909a, 473). One further season did take place in 1909 investigating some kilns to the north (without the permission

of the landowner) and cutting sections through a number of the defences (St John Hope and Stephenson 1910), but that was where the Society of Antiquaries campaign drew to a close. St John Hope formed a new triumvirate with Hawley and Montgomerie and turned the Society's efforts towards Old Sarum (1909–15) (Fulford 2007). The cemeteries of Silchester remained unexplored and undiscovered. The Antiquaries' legacy was, however, the creation of a plan of a complete Roman cityscape, the first of its kind in Britain and the northern provinces. Their understanding of stratigraphy may have been poorer than Joyce's, their attention to finds poorer than Pitt Rivers', but Hodge's 'great plan' became an icon of twentieth-century Romano-British archaeology. Wheeler's evaluation summed it up well:

> In 1890 none of our Romano-British towns had been excavated; we knew almost nothing of their plans and buildings, of their material and sociological make-up. We could not, in fact, begin to discuss the economy and sociology of Roman Britain. What was wanted, and within a measurable space of time, was just such a picture as the excavators of Silchester proceeded to give us. The picture was of course both synthetic and incomplete but thereafter we knew certain fundamentally important things about Roman towns and could begin to fit them into our general scheme. It would have taken ten Pitt Riverses ten times as long as Pitt Rivers' two decades to have dug the site accurately in depth, and meanwhile much else that was now due would have been kept waiting; the whole accelerating progress of Romano-British studies would have been held up, the impulse lost. It is a sound military axiom that a second-rate plan carried out in time is preferable to a first-rate plan executed tardily; and, applied with caution, this axiom may be apposite on occasion to scientific research. It was certainly apposite to Silchester, however little the matter may have been understood by the excavators themselves. (Wheeler 1950, 124)

For a few years excavations in the vicinity were continued by a villager who had spent time on some of the excavations. **Lt.-Colonel John Karslake (1868–1942)** had been an army officer, barrister and one time vice-chairman of London County Council. Unfortunately none of his excavations were published with plans and all of his write-ups are difficult to evaluate. He began his excavations concurrent with the Antiquaries' work around 1909 to the south-west in Rampier Copse on the line of the outer earthwork (Karslake 1910), though he carried on by excavating a supposed eastern gateway through a hypothesised eastern outer defensive line (*c.* 1912; Karslake 1914; 1920). His interests in the site continued and in 1926 he excavated a tilery at Little London (Karslake 1926), as well as writing a number of speculative articles about Silchester and its vicinity (Karslake 1921; 1922; 1933).

The broader historical context of these explorations from the sixteenth to nineteenth century has been explored recently by Hingley (2012).

Alas neither St John Hope, nor any of the other survivors of the Antiquaries' campaigns, drew all this knowledge together into a grand synthesis of the town; while the Great Plan brought all the insulae plans together, the rich detail lay divided amongst the annual reports and in the collections in Reading Museum. One person who rapidly stepped forward to synthesise the work was James Thomson, completing a manuscript just before the outbreak of the Great War, though only concluding publication a decade later (Thomson 1924). His *A Great Free City: The Book of Silchester* was remarkably discursive and rambling, but it filled a gap that the excavators had left, even if reviews of the day all thought it could have done with significant pruning (W. 1925).

THE LATER TWENTIETH-CENTURY EXCAVATIONS

Shortly after the succession in 1934 of Arthur Wellesley (1876–1941) as the fifth Duke of Wellington, arrangements were put in place to hand over a stretch of the wall to the keepership of the Ministry of Works and Buildings. The portion ran from the North Gate to the Amphitheatre, and the intention was to permit restoration and preservation. This began in 1937 and the following year, with the trees and overgrowth now cleared, **Molly Aylwin Cotton (1902–1984)** began a couple of years of work: at first evaluating the dating evidence for the wall, then adding an additional research season to examine the outer earthworks in order to gain a complete picture

of the development of the defences. By this stage in her career she had just completed a posting as deputy director at Maiden Castle (1934–37) for Wheeler, who occasionally visited Silchester to give his advice. Cotton's small-scale excavations were notable for gaining evidence dating the defences, realising that the co-axial road-system once extended beyond the line of the later walls to the north-west and finding very early 'Belgic' material low down in several sequences, though always associated with Claudian or later material (Cotton 1947).

After the interruption of the war, **Kenneth St Joseph (1912–1994)** linked his aerial photographic interpretation skills developed through the RAF with his schoolboy interest in Roman archaeology and began his remarkable flying career. Early photographs revealed a new 'Inner Earthwork' to the defensive circuits surrounding Silchester (Crawford 1955). **George Boon (1927–1994)**, then an Archaeological Assistant at Reading Museum, eagerly followed this up with a series of small trenches from 1954 to 1958, to try and establish if this represented the missing pre-Claudian phase of the town. To support him a Silchester Excavation Committee was revived with Cotton as Chair, and himself as Secretary and Director of Excavations. By the time he had finished Boon had moved on to become Assistant Keeper at the National Museum of Wales. Nonetheless, not only did Boon demonstrate that the Inner Defences were early, but he also questioned Cotton's late dating of the Outer Earthworks, trying to push them back into the Iron Age (Boon 1969). Despite his job move Boon's interest in the town never wavered and he continued publishing on the site until his death. The year following his dig, he suggested to the Silchester Excavation Committee that the supposed church close to the Forum would be an ideal candidate for re-excavation to obtain better dating evidence than the Antiquaries had achieved. **Sir Ian Richmond (1902–1965)** was invited to conduct the excavation and did so in 1961. Dating evidence was still equivocal and unfortunately Richmond died before the site was written up, a task which was later undertaken by **Sheppard Frere (1916–2015)** (Frere 1976).

In 1966 a further stretch of wall to the south came into guardianship, and work started on clearing the blackthorn bushes and trees to assess the damage. In this case it was a young **John Collis (b. 1944)** who was brought in to do the work for the Ministry of Public Buildings and Works in 1967–8, undertaking the task in difficult winter conditions (Collis 1983). The work consolidating the walls continued, and by the mid-1970s more excavation was necessary; by this time Collis had moved to Sheffield to take up a lectureship there, so in 1974 **Michael Fulford (b. 1948)**, Barry Cunliffe's research assistant, who had just been appointed to a lectureship at the University of Reading, began the first of his many excavations on the site (FIG. 3.11; Clarke *et al.* 2013; Catling 2015).

Fulford's work can best be separated out into a number of parallel strands, all of which are discussed in more detail later. First, there was work associated with the consolidation of the walls and the guardianship management of the site: his excavations of the defences in 1974–6, 1978 (Fulford 1984) and then again on the north side in 1991–3 (Fulford *et al.* 1997). Secondly, there have been a series of small-scale responsive works, many associated with building works within the town in the vicinity of Manor Farm and St Mary's Church, and others associated with water mains or exploration of areas where Late Roman siliquae or Iron Age mirrors were turning up. Finally, and the area where he has most made his mark, are the three major research excavations: the Basilica 1977, 1980–6 (Fulford and Timby 2000), the Amphitheatre 1979–85 (Fulford 1989c) and Insula IX 1997–2014 (Fulford *et al.* 2006; Fulford and Clarke 2011a). He has also recently opened a new area in Insula III, 2013+.

Much of the site came into the ownership of Hampshire County Council in 1979 following the death of the seventh Duke of Wellington in 1972 and the sale of this part of the estate to pay for the death duties. Their purchase averted a scheme to sell it off to Americans in a number of $^{1}/_{8}$ acre plots. It has been while in the ownership of Hampshire that the strong partnership between them, English Heritage and Fulford has developed to ensure that Silchester is both curated and researched.

The twentieth- and twenty-first-century archaeologists have, like the Antiquaries before them, left their mark on the site. In this case it can be seen in the material culture left behind by the archaeologists camping and working on the site (FIG. 3.12). In the geophysical survey data if the signature of 'metallic spikes' is separated out (dipoles, see p. 44), this neatly maps the campsites

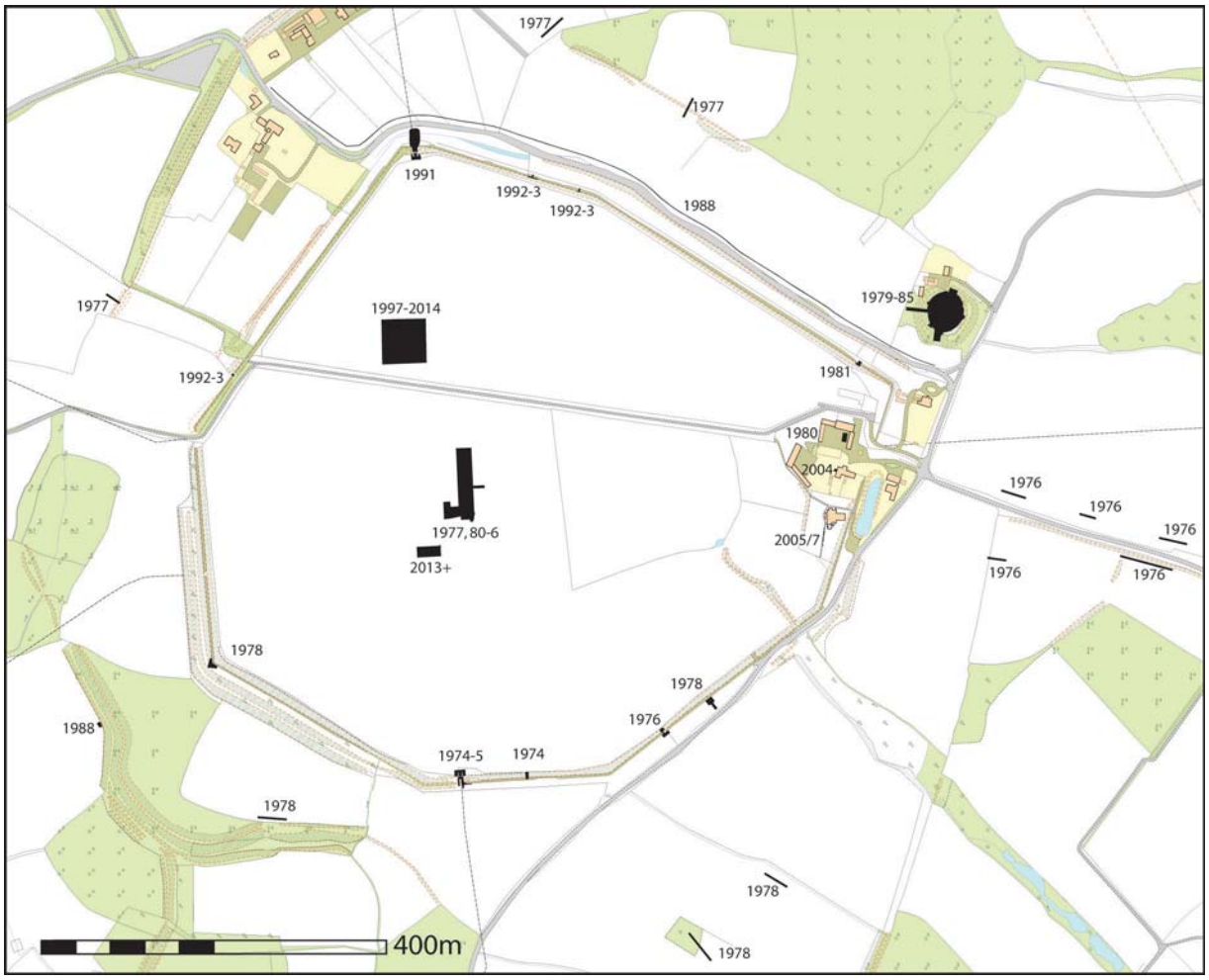

FIG. 3.11 Excavations by Mike Fulford, up to 2013.

used over the generations by different projects, far more than any Iron Age or Roman phenomena. The pattern also charts the rise of consumerism and the disposable nature of material culture, with the more recent campsite showing far stronger results than others, as tent pegs, bottle tops and other paraphernalia of modern camping are left and incorporated into the topsoil of the site. Curious differences can be seen. Richmond's excavation of the 'Church' left only modest traces, with debris contained within two wooden sheds and a caravan (see NMR aerial photo SU6362/167, 1961). Whereas, the spikes associated with the Basilica excavation are in rows, which are corroborated by aerial photographs of the site under excavation in the 1970s and 80s, where ridge-pole tents were camped in organised rows (e.g. NMR SJ6362/70, July 1983); the spikes would appear at the front of all the tents' entrances. This is rather different to the more haphazard arrangement of the site in the 1990s and 2000s. The halo of modern material masks the earlier remains almost totally in the area of the recent campsite (FIGS 5.4 and 5.13), so it is hoped that if there is any future work, then camping will be restricted to this one location so there is no detrimental effect to others. The cluster of spikes in front of the Amphitheatre represents a popular picnic spot when visiting the site, and that to the east of it the location of a former building.

Alongside these excavations the area supports a thriving local community, and on many of the farms and residences surrounding the walls evaluation and excavation work has also been undertaken by a variety of organisations, including Thames Valley Archaeological Services, Berkshire Archaeological Services, Southern Archaeological Services and Southampton City Council Archaeological Unit.

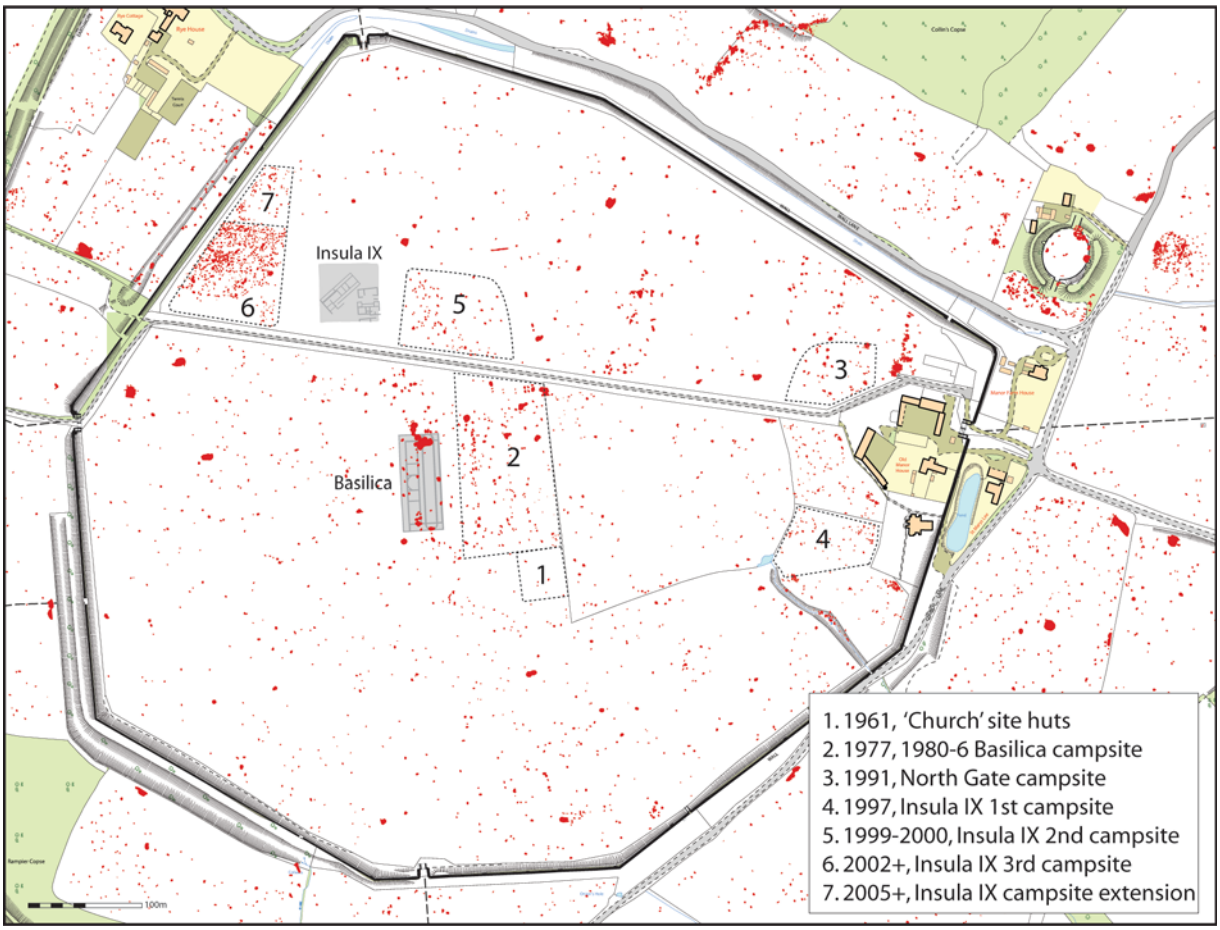

FIG. 3.12 The twentieth-century campsites: 'spikes' in the fluxgate gradiometry results.

SUMMARY OF EXCAVATIONS

Table 3.1 briefly lists the intervention on and around the main site up to 2013. It only lists the key reports of each excavation; interim accounts, secondary reports and discussions are referred to in the Atlas. A database summary of the location of the archives of many of these is maintained on the National Record of the Historic Environment (Pastscape) website.

WALKING THE FIELDS

The land around Silchester was the subject of one of the earliest systematic surveys around a Roman town. From 1969 to 1981 fieldwalking took place every season by the *Calleva* Fieldsurvey Group in a project written up by Mark Corney (1984). Many fields were walked on multiple occasions, some up to 11 times — 22 fields covering 113 ha in total. Linewalking was the main method, with grids being set out over concentrations. The aim was to walk all land within 500 m of the wall, but in practice much to the north was inaccessible or under pasture. Some areas at a greater distance to the south were also walked, particularly around the Roman road junction at Latchmere Green, where the Winchester and Chichester roads diverge, which revealed a small settlement close to where a Later Iron Age mirror burial was discovered a few years later along with material from an electricity cable trench (Fulford and Creighton 1998; Brading 2011). Overall, about 162 kg of Iron Age or Roman pottery was recovered and building material was recorded. Corney divided this material up into five broad chronological categories to report on it, and a summary of the data is included here in the Atlas so it can be interpreted alongside the other evidence from each field.

At the end of Corney's work he hoped the survey could carry on using new refined methods,

TABLE 3.1. SUMMARY OF EXCAVATIONS IN AND AROUND SILCHESTER

1710s	**?Betham**: Onion Hole and a large mosaic in southern area and lots of coins (Hearne 1813, 189, 195; 1885, 165; 1889, 438)
1730s–50s	**Stair**: Forum and street plan (Ward 1744–5; 1748)
c. 1780	**Curtis**: mosaic extraction within 'Watch Field' (Chandler 1821, 20)
1821	**Unknown**: East Gate (Bartlett 1854)
1833	**Coles**: *Mansio* bathhouse and 'villa' (Kempe 1833)
c. 1850	**Maclauchlan**: reference to him digging (Anon. 1898)
1864–78	**Joyce**: various including the Forum (Joyce 1876b; 1881a; b)
1878–84	**Monro and Langshaw**: various including the *Mansio* bathhouse (Hilton Price 1887)
1890–1908	**The Antiquaries** (Fox, St John Hope, Stephenson, Davis and Jones): entire interior (Fox and St John Hope 1889–91; 1890; 1893a; 1894; Fox 1892; 1895; St John Hope and Fox 1896; 1898a; 1899a; 1900; 1901; St John Hope 1897a; 1902; 1903a; 1905a; 1906; 1907a; 1908; 1909a; St John Hope and Stephenson 1910)
1909	**The Antiquaries** (Stephenson and Challenor-Smith): Town Wall earthworks and kilns (St John Hope and Stephenson 1910)
c. 1909–12	**Karslake**: Rampier Copse and the Beeches (Karslake 1910; 1914; 1920); and later Little London tilery (Karslake 1926)
1938–9	**Cotton**: North Walls, Rye House gardens and outer earthworks (Cotton 1947)
1952	**Boon**: section through the Outer Enclosure during road widening (Boon 1969, 16)
1954–8	**Boon**: various Inner and Outer Earthworks (Boon 1969)
1961	**Richmond**: the 'church' (Frere 1976)
1967–8	**Collis**: Wall near South Gate (Collis 1983)
1974–6, 78	**Fulford**: Wall, South Gate, Sluice-Gate, North-East Gate, Outer Earthwork (Fulford 1984)
1977, 80–6	**Fulford**: Basilica (Fulford and Timby 2000)
1979–85	**Fulford**: Amphitheatre (Fulford 1989c)
1980, 95, 2004–5, 7	**Fulford**: Manor Farm and St Mary's Church (various small interventions, not all yet published)
1987	**Fulford**: Church Lane Farm (Fulford 2011)
1988	**Fulford**: location of siliquae hoard (Fulford *et al.* 1989)
1988	**Ford, Fulford and Reid**: Rye House bungalow (Fulford *et al.* 1997, 145–54)
1988	**Fulford, Timby and Williams**: water main (Fulford *et al.* 1997, 154–66)
1991–3	**Fulford and Ripon**: North Gate and Town Wall (Fulford *et al.* 1997)
1995	**Creighton and Fulford**: Latchmere Green, Mirror Burial (Fulford and Creighton 1998)
1997, 99	**Berks. Arch. Services**: Drake Cottage, footings (Entwhistle 1998; 2000)
1997–2014	**Fulford and Clarke**: Insula IX (Fulford and Clarke 2002c; Fulford *et al.* 2006; Fulford and Clarke 2011a); publication on-going
1993–4	**Southern Arch. Services**: electricity cable, Latchmere Green (Brading 2011)
1997, 2006, 8	**TVAS**: Chitty Farm, evaluations (Hammond 2006; Mundin 2008; A. Ford 1997; S. Ford 1997; 1998)
1999	**Berks. Arch. Services**: car park (BAS 2000)
2001	**Berks. Arch. Services**: Bramley Frith Enclosure, survey (BAS 2001)
2002–3	**TVAS**: Little London Road, evaluation (Taylor 2002) and excavation (Moore 2011)
2009	**Southampton City Council Archaeology Unit**: watching-brief while erecting information board displays (Elliott and Garner 2009)
2012–13	**TVAS**: St Mary's Lee, evaluation (Porter 2012) and watching-brief (Porter 2013)
2013	**TVAS**: Rye Cottage, watching-brief (Mundin 2013)
2013+	**Fulford and Clarke**: Insula III

continuing further out, and followed up with small-scale excavation (Corney 1984, 292). The fieldwalking did, though not the excavation. Between 1981 and 1989 University of Reading undergraduates were sent out to conduct fieldwalking projects in the area. 42 fields covering 321 ha in total were covered, radiating up to 2 km away from the town centre. The quality of recovery was variable as would be expected with a project carried out by 93 different students, and the material remained unpublished until the evidence was collated over two decades later by Ford and Hopkins (Ford and Hopkins 2011). Though less controlled than the *Calleva* Fieldsurvey Group's work, they did recover flints and also Saxon and medieval pottery. Overall the patterns produced were very similar to those Corney had published. However, they did manage to walk some fields much further to the north, and show how rapidly the concentration of Roman ceramics tailed-off from the Town Wall; the most significant extensions to existing knowledge were probably the information about flint scatters and the medieval material.

AERIAL PHOTOGRAPHY

While the earliest observation of a cropmark at Silchester dates back to 1541 (see above p. 10; Fagan 1959), within the town it was with St Joseph's photographs after the Second World War revealing the Inner Earthwork that aerial photography first started to impact on work here; this discovery initiated Boon's campaign of excavations.

Many new images taken in 1970 were added to the National Monuments Record (now Historic England Archive), and along with some images from the University of Cambridge collection, a provisional transcription of these was worked into the field scatter plots of Corney's fieldwalking survey (Corney 1984).

A step-change in photographic reconnaissance was the plotting of all the aerial imagery from in and around the town as part of English Heritage's National Mapping Programme, in 1989–

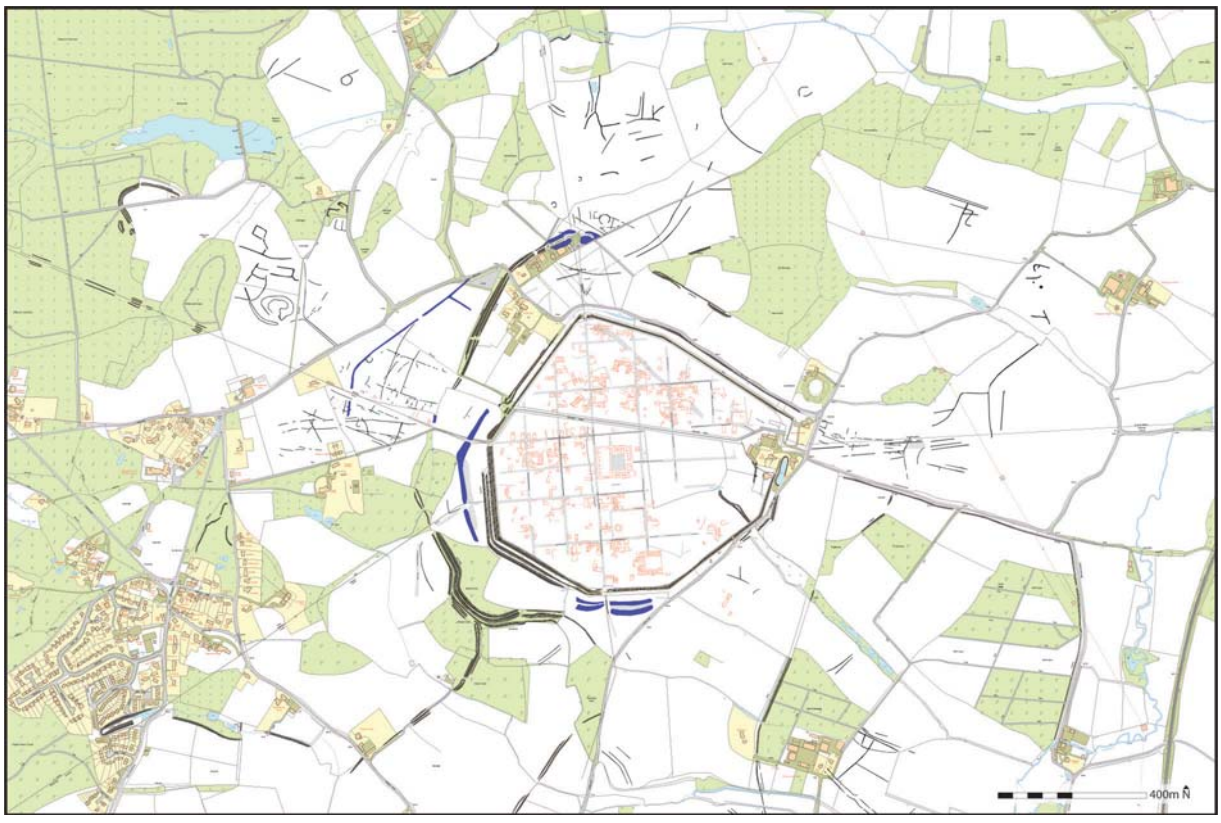

FIG. 3.13 Aerial photographic features from the National Mapping Programme (NMP, based on Bewley and Fulford 1996) and the upstanding earthworks.

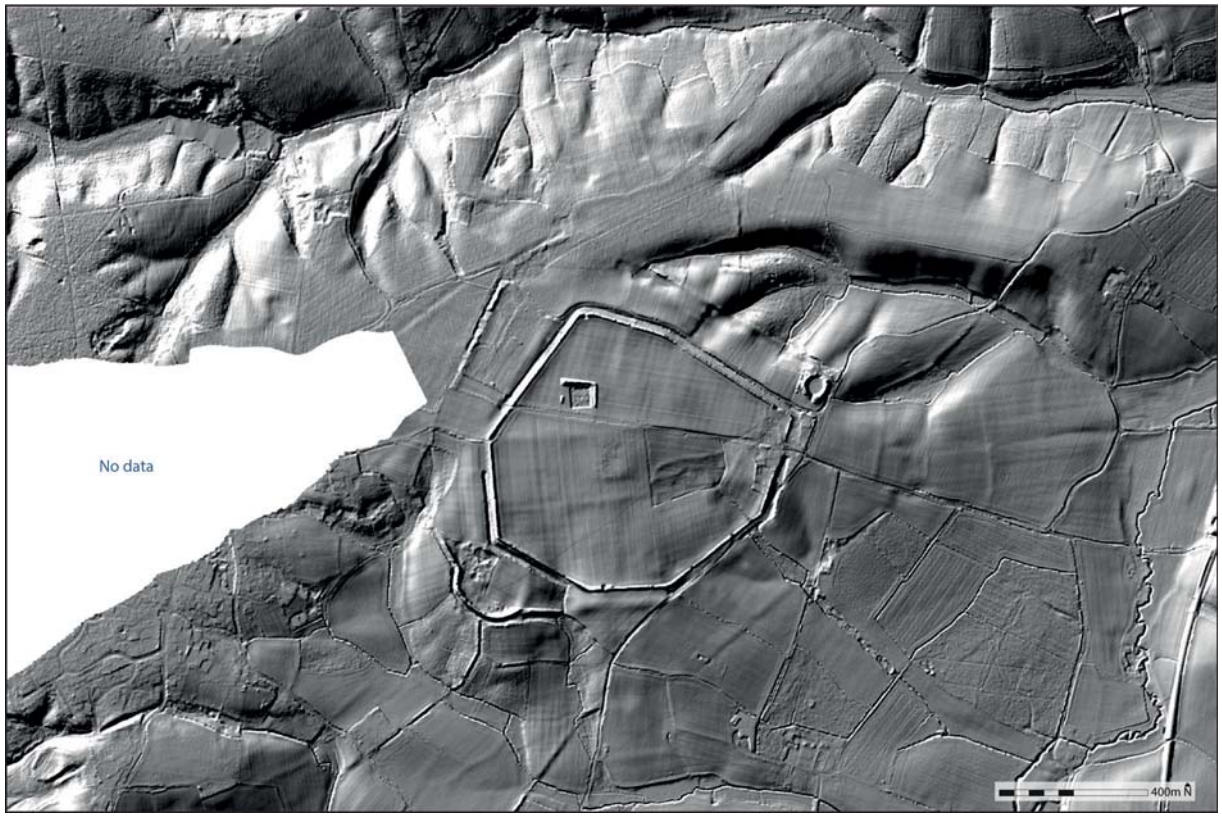

FIG. 3.14 The Environment Agency LiDAR data around Silchester, supplied by their Geomatics Group. The data show a composite of surveys (created November 2012) predominantly at 1 m resolution.

95. Grahame Soffe, Moraig Brown and Carolyn Dyer transcribed all the features, directed by Robert Bewley, Roger Featherstone and Rowan Whimster (Bewley and Fulford 1996). In all 340 ha were surveyed and transcribed at 1:2,500. Within the wall it added some buildings to those on the Antiquaries' plan, but the main impact was in the detail provided of the enclosures either side of the road running out from the East Gate. These had been schematically plotted by Boon (1974, foldout plan), but now were rendered in more detail. The plot also refined the course of some of the other earthworks, and poured a little cold water on Boon's conjectured extension of the street-grid to the north of the town beyond the walls.

Since the mid-1990s a significant amount of the land has come out of cultivation to the north, west and south, and is now hay meadows, grazing fields or paddocks. New revelatory aerial photographs are not to be expected; but there has been the development of LiDAR. The area has been covered by the Environment Agency work, though as they are more interested in flood-management, the top of the gravel terraces is not their highest priority so the coverage is patchy. But the corrected 1 m raster-resolution data for the area are available for much of it (with gaps) and have been acquired for this work. It shows little unexpected in the woods, though it does reveal particularly well the remains of banks on either side of the Roman roads to Old Sarum in the south-west and to *Spinis* (conventionally interpreted as Woodspeen) in the north-west (FIG. 3.14).

THE DEVELOPMENT OF GEOPHYSICS

Innovation in geophysics was also evident at Silchester early on. In the 1950s archaeology was starting to experiment with these techniques and George Boon was able to entice over from Oxford the early pioneers to help him trace the newly discovered Inner Earthwork. While the ditch's pathway was clear from aerial photographs in the northern half of the town and trenches had proved its existence, it was somewhat more elusive in the south-east quadrant of the town.

Humphrey Case from the Ashmolean Museum experimented with several resistivity traverses across its suspected path in Insulae XXIX/XXI and XXXV/XXXIII. The first traverse showed an area of low resistance, which quite possibly could have been the Inner Earthwork, while the results from the second traverse were equivocal, which is fortuitous as the results of our geophysical survey suggest they were measuring too far to the west and the actual earthwork lay further east (Boon 1969, 3). This survey was followed up a few years later by Martin Aitken testing his new Proton Magnetometer in much the same area. Unfortunately within the walls the results were far too confusing for this early equipment because of all the superimposed layers of activity. If his sample interval was approximately every 2 m, as he had been using at other sites such as Water Newton, then the resolution would certainly have been too low to make much sense of things (Boon 1969, 4; Aitken 1959, 206).

The use of geophysics then ceased for a generation. The site was too complicated and the Great Plan meant it was thought unnecessary, until the early 1990s when pressure to find a new solution to car parking led to Geophysical Surveys of Bradford (GSB) being commissioned to conduct a couple of surveys to the west of the town in LP 4172 (Geophysical Surveys of Bradford 1991; 1992). The results revealed the road going west, enclosure ditches and many pits, but at a resolution that was hardly better than the aerial photographs which had already

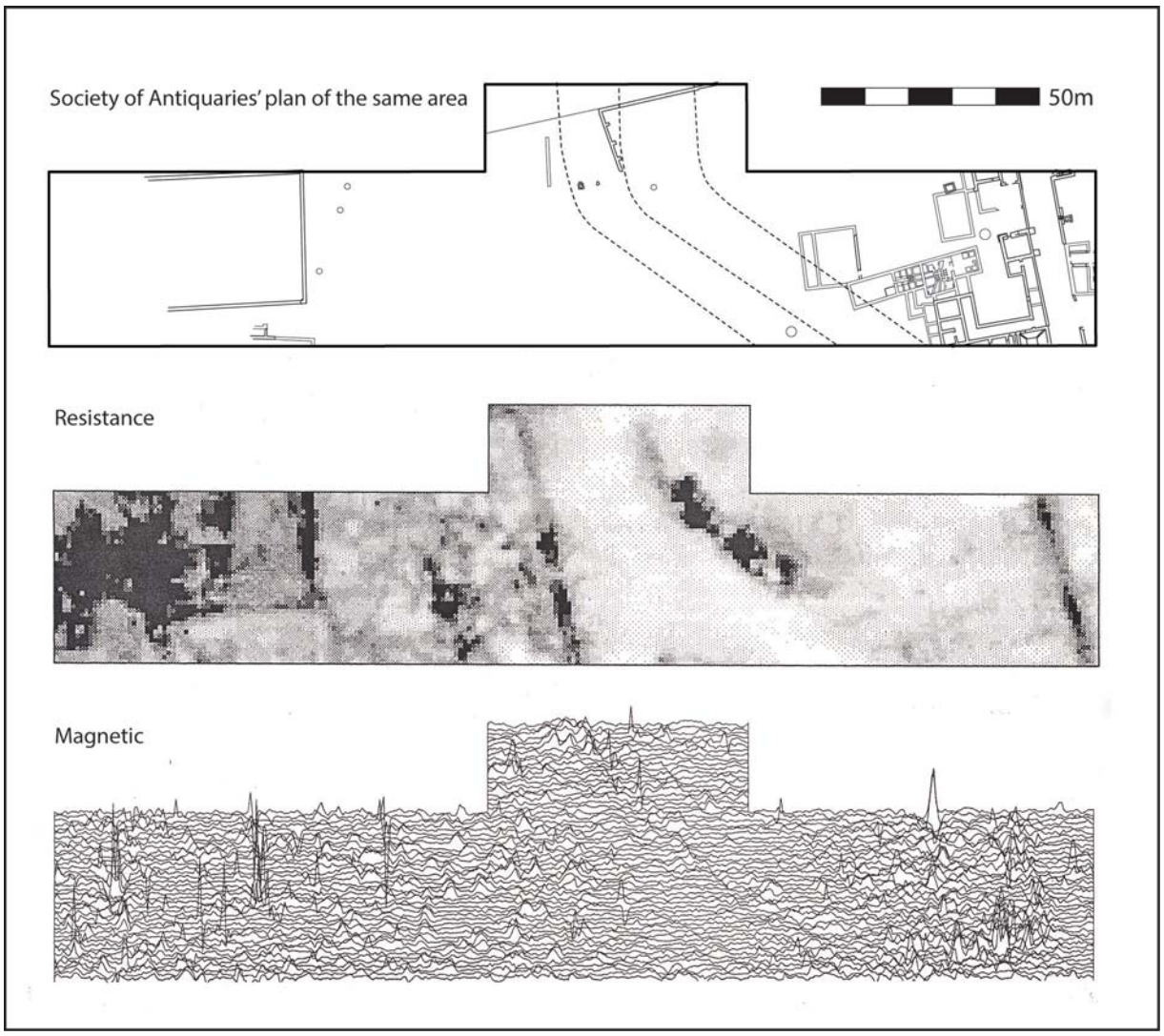

FIG. 3.15 1993 survey by Geophysical Surveys of Bradford (93/75) compared to the Antiquaries' Plan (Insulae XXVII and XXXVI).

been plotted by Boon. Nonetheless GSB were producing top quality work for the time and they were asked to conduct a small survey within the town on the border of Insulae XXXVI/XXXIII (FIG. 3.15; Geophysical Surveys of Bradford 1993). As can be seen, their results revealed the Inner Earthwork and features already known from the Antiquaries' excavations, but again the clarity was very poor in comparison to the Victorian plans to hand.

Three factors could improve results: increased resolution, advances in equipment and improvement in printing and visualisation technologies beyond the dot-matrix printer. In 2000 an English Heritage team came to experiment with work at twice the resolution of the GSB surveys, though using essentially the same equipment (FIG. 3.16; Martin 2000). They covered a much larger area surrounding the Forum (Insula IV) and the area to the south covering the 'circular' temple (Insula VII). The form of interpretation was fairly rudimentary, but not uncommon in geophysical reports then or now: the main linear features were picked out as well as some particular areas of positive or intense magnetic activity. In comparison to the Antiquaries' plan this was still exceptionally crude, yet a few new features were revealed.

The existence of Hodge's Great Plan, with the additions from aerial photography, led to the perception that large-scale geophysical survey was totally unnecessary. It was thought it would not show anything that was not already known. Silchester could be used as a test-bed so that techniques could be trialled against the results from the Great Plan, such as some more work by English Heritage testing a new Ground Penetrating Radar array — but the work was entirely technique-development-based rather than to answer archaeological questions (Linford 2001).

Yet this was also the period when large-scale surveys of Roman towns were taking place elsewhere. In 1990–1 the entire Roman town of Itálica had been surveyed integrating new features from the geophysical survey data with detailed surface prospection (Creighton *et al.* 1999). In Britain other greenfield Roman towns were receiving attention. The Wroxeter Hinterland Project (1994–9) included the surveying of the entire interior of the town (White and Gaffney 2003; Gaffney and Gaffney 2000; White *et al.* 2013). At this point Silchester started to get left behind.

Techniques continue to develop, and this project brings the use of geophysical survey up to date with where techniques were in 2000–10. 217 ha of the land in and around Silchester were surveyed with hand-held fluxgate gradiometry with some other smaller areas also sampled using other techniques. In the current decade advances in GPS enabled devices mounted on or behind vehicles are transforming the scale of coverage possible, which means that it is data interpretation that remains the most time-consuming element.

The future of using Silchester as a test-bed looks secure. The site has been used to experiment

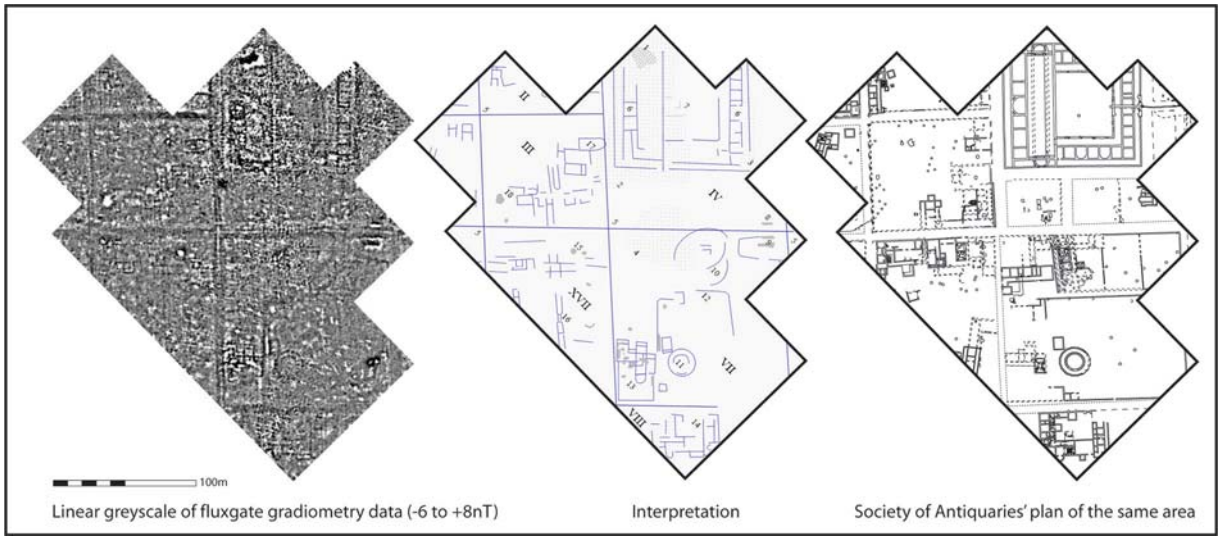

FIG. 3.16 2000 survey and interpretation by English Heritage (Martin 2000) compared to the Antiquaries' plan of the Forum area.

with Gamma-ray detection as a technique, with the Science and Defence Laboratory doing some total-emission detection in 2002–4 (led by Mike Gooding), followed up by myself (with Stuart Black and Matt Berry) in 2009 and Nuvia in 2010 (led by Mike Davies). Meanwhile English Heritage has been experimenting further with developments in GPR, in particular using a stepped-frequency, continuous wave (SFCW) radar system recording the amplitude and phase over a bandwidth between 50 and 1250 MHz in 2 MHz steps (Linford *et al.* 2010; Sala and Linford 2012).

SUMMARY OF GEOPHYSICAL WORK FOCUSED ON THE CITY

TABLE 3.2. SUMMARY OF GEOPHYSICAL WORK AT SILCHESTER

1955	?	Earth resistance (transects) Humphrey Case (Boon 1969, 3)	Tracing the Inner Earthwork
1958–9	?	Proton magnetometry M. J. Aitken (Boon 1969, 4; Aitken 1959, 206)	Tracing the Inner Earthwork
1991	0.8 ha	Earth resistance (RM4 or 15; 1.0 x 1.0 m)	Field 4172
	1.8 ha	Fluxgate Gradiometry (FM36; 0.5 x 1.0 m) GSB (Geophysical Surveys of Bradford 1991)	Field 4172
1992	0.9 ha	Earth resistance (RM4 or 15; 1.0 x 1.0 m)	Field 4172
	0.9 ha	Fluxgate gradiometry (FM36; 0.5 x 1.0 m) GSB (Geophysical Surveys of Bradford 1992)	Field 4172
1993	1.1 ha	Earth resistance (RM4 or 15; 1.0 x 1.0 m)	Insulae XXXVI/XXVII
	1.1 ha	Fluxgate gradiometry (FM36; 0.5 x 1.0 m) GSB (Geophysical Surveys of Bradford 1993)	Insulae XXXVI/XXXIII
1997	0.5 ha	Earth resistance (RM15; 0.5 x 0.5 m) University of Reading (Creighton 1997)	Insula IX
2000	5.0 ha	Fluxgate gradiometry (FM36; 0.25 x 1.0 m) English Heritage (Martin 2000)	Insulae III, IV, VII
2000	0.4 ha	GPR (PE1000; 450 & 900MHz; 0.05 x 0.5 m) English Heritage (Linford 2001)	InsulaVII
2002	1.3 ha	Gamma-ray (total emission, *c.* 1 m)	Forum
2004	4.8 ha	Gamma-ray (total emission, *c.* 1.25 m) Defence Science and Technology Laboratory (unpublished)	Forum
2006	0.5 ha	Earth resistance (Geoscan RM15; 0.5 x 0.5 m)	Insulae IX, II, III
		Fluxgate gradiometry (Geoscan FM256 0.25 x 0.125 m) (Fry 2007)	Insulae IX, II, III
2005–9	217 ha	Fluxgate gradiometry (Bartington; 0.25 x 0.5 m)	City and vicinity
2007–9	*c.* 1 ha	Earth resistance (MSP40; 0.25 x 0.5 m)	Various locations
2009	5.0 ha	GPR (GeoScope multi-Hz; 0.075 x 0.075 m) English Heritage (Linford *et al.* 2010)	SW Interior of city
2009	7 & 1.2 ha	Caesium vapour magnetometry English Heritage (unpublished)	SW Interior of city and Western cemetery
2010	n/a	ERT & GPR (GSSI 400MHz) across defences (Fry 2010)	Various location
2010	0.7 ha	Gamma-ray (total emission, *c.* 0.25 m) Nuvia (unpublished)	Insulae II & IX

PART II:
THE SILCHESTER MAPPING PROJECT

CHAPTER 4

METHODOLOGY

INTEGRATION

The philosophy at the heart of the Silchester Mapping Project was the integration of datasets; it was never simply intended to be just another large-scale geophysical survey. Geophysical surveys provide a great foundation for understanding a site, but they are only a starting point, especially on complex multi-period sites. To be interpreted ideally they require triangulation with other data: with historic maps to chart now ploughed-out field-boundaries; with historical aerial photographs to see the remains of glasshouses and temporary agricultural buildings that never made it onto maps; with cropmark evidence to see how features which are difficult to see on certain subsoils using geophysics actually continue; with geological maps to see what large pits were potentially quarrying down into; and most importantly, with archaeological material culture from excavations, evaluations and fieldwalking to date features and attempt to add a chronological dimension to the palimpsest of features.

The following sections relay the data sources and also their problems and limitations. All were integrated as layers within Adobe Illustrator where much of the digitisation was done and exported into ArcGIS. The final section shows how information was integrated and selected for the Atlas (Chs 5–6).

The core study area comprised *c.* 700 ha around the town. It contains the walled town on the edge of the gravel plateau, rolling down to the Silchester Brook in the east, the West End Brook in the north, along the plateau ridge and Silchester Common to the west and following the road to Winchester and the linear earthworks south a little way. All such areas are ultimately arbitrary, and there are significant features which are brought into the discussion in all directions off the map. Major linear earthworks radiate out from the town, while to the north-west outside the core area is the Grim's Bank.

CARTOGRAPHY

The base map for the plans came from the Ordnance Survey services of Landline Data for the GIS and OS Digimap Carto for the illustrations. Both services have now been replaced in the ever-changing world of cartography. Printed Historic maps were examined from the University of Reading Map Library and also online through Digimap Ancient Roam (Table 4.1).

There are some curiosities in the above sources. Some details of excavations later than the edition of the maps were incorporated onto some versions; for example, the first two seasons of work by the Antiquaries in 1890–1 are dotted on to what otherwise appears to be the 1877 1:2500 map, suggesting some updating of OS editions took place as the seasons progressed.

LiDAR data were acquired from the Environment Agency Geomatics group. However, because their interest in fine topographic data relates to flood-risk analysis, the top of gravel plateaus was not their primary concern, so the coverage is not 100 per cent complete and is

TABLE 4.1. MAP SOURCES CONSULTED

1804	Stratfield Mortimer Enclosure map
1841	Silchester Enclosure map
1872	OS County Map of Hampshire 1:2500
1877	OS County Map of Berkshire 1:2500
1877	OS County Map of Berkshire 1:10560
1877	OS County Map of Hampshire 1:10560
1896	OS County Map of Hampshire (first revision)
1899	OS County Map of Berkshire (first revision)
1900	1:10560 first revision Maps of Berkshire and Hampshire
1913	1:10560 second revision Maps of Berkshire and Hampshire
1969	OS 1:2500
2008	OS Landline Data (for GIS) and OS Digimap Carto (for the Atlas)

relatively low resolution (1 m in some areas, 2 m in others); but it has enabled observations to be made of earthworks under the woodland.

DIGITISING THE ANTIQUARIES' EXCAVATIONS

The digitisation of the Society of Antiquaries' plans was taken from the season-by-season individual insula plans published in *Archaeologia*. The originals, from which the publisher's plates were created, still exist in the Society of Antiquaries' archives on large rolls of cartridge paper. Various different colourwashes were used to tint different walls, and these translated into various shades of grey in the published plans, though there appears to be no great consistency as to what these different shades actually represented; more often than not phasing, but this was not always clear. There was no additional information to be drawn from the archive drawings other than the observation that fine pencil marks showed a grid, which suggests how the plan was transferred across from the original site drawings (now lost).

The plans give the impression of professionalism, clarity and hence accuracy, which is correct, up to a point. Where individual buildings have been compared to the geophysical plan there has usually been a near-perfect match, and any deficiencies usually related to the blurriness of the geophysical survey data rather than the Victorian plan. However, when an insula as a whole was superimposed on the survey plan it was noted that not all the buildings were in quite the right position; some were out by a few metres. It would appear as if the Victorian methodology involved planning each individual house, and then errors occurred as the individual building plans were pasted together to form a composite to create an insula plan which was in turn converted into a plate for *Archaeologia*. This could have been suspected from the 'Great Plan', as examined closely, each individual building was hand-drawn and then glued on to Hodge's enlarged map. So, the 'Great Plan' provides a great overall impression, but absolute positional accuracy was variable to a small degree. The scale of the inaccuracies at their worst can be seen by placing side by side the plans from two different seasons of Insulae XXIIa and XXIIb (St John Hope and Fox 1900, pl. 8; St John Hope 1902, pl. 32). Here House XXII.4 crossed both blocks, but if those two are superimposed then sections of the Town Wall bordering the northern side of the blocks misalign by 6.5 m.

In coming to the interpretative plan here, the buildings have all been adjusted in a fashion that will be described in the final section of this chapter, so that in as far as we can tell they are in their correct position.

LOCATING PAST EXCAVATIONS

Linking the worlds of antiquarian sketches, Victorian military planning, National Ordnance Survey mapping and modern GPS augmentation is always going to involve compromises.

The Ordnance Survey plans until the early twenty-first century had a certain degree of latitude, especially in rural areas; their internal surveying manual (the 'Red Book') tolerated errors of up to 1 per cent on scales up to 200 m. Much archaeological cartography in the twentieth century involved re-drawing these maps by hand using Grant projectors to enlarge and reduce, introducing yet more errors. It was, therefore, perhaps not particularly surprising that while some excavations could be located with ease, others required certain approximations to be made, particularly in the case of Cotton's excavations in LP 6472 and 6667, and especially Boon's Trench H near the South Gate in LP 0001, where conflicting locational measurements were published (Cotton 1947; Boon 1969). Many other more recent excavation plans had similar issues but to a much lesser degree.

Some of the past excavations are known about, but unlocated. The Antiquaries dug a number of sections through the defences, particularly in their final 1909 season. Alas, no overall plan was published of where these were, though a few could be established from measurements published. A search in the Antiquaries' archives was fruitless as in 1993 the maps and plans from the Society's archives had all been transferred to RCHME (now the Historic England Archive in Swindon). The Antiquaries' 25″ OS maps of Silchester relating to the excavations had been misarchived there as part of the 'Hugh Braun Collection' (showing the location of medieval castles) but once re-discovered were seen to have on them faint pencil marks of the location of some, but not all, of the trenches cutting through the Outer Earthworks. Many of these excavations, such as those of the pottery kilns somewhere to the north of the town, remain a mystery. Where only the approximate position of a trench is known it has been shown in the Atlas in a different colour.

The plans of the earlier excavations by Stair (FIG. 3.2), Joyce, Munro and Langshaw (FIG. 3.7) have not been repeated within the Atlas, to minimise confusion. Often the Antiquaries reused Joyce, Munro and Langshaw's plans as those of the latter had been drawn by Henry Hodge who was to become their surveyor.

DIGITISING PAST SURVEYS

VERTICAL AERIAL IMAGES

Vertical aerial coverage was investigated and the following flights were scanned and included into the GIS. Between 1961 and 1986 the main changes in the landscape were the incremental growth of Silchester village and also the addition and removal of agricultural buildings. Three areas had long ranges of sheds, probably for poultry, up until they were removed in the late 1960s or early 70s. The remains of some show up in the geophysical survey data. One set of verticals from the summer of 1976 in the run-up to the drought provided excellent parchmarks.

1961 (covering up to the South Gate)
1966 (covering the whole study area)
1969 (covering the whole study area)
1976 (covering the whole study area showing exceptional parchmarks)
1981 (covering the whole study area)
1986 (covering down to Church Lane Farm)

OBLIQUE AERIAL IMAGES OF CROPMARKS AND PARCHMARKS

The aerial photographic interpretations have largely been adapted from the National Mapping Programme (NMP). This itself was largely based on the RCHME work published as Bewley and Fulford (1996). Some additions have been made to it, including several cropmarks transcribed by Corney to the south-east of the town near Church Lane Farm (Corney 1984).

Cropmark transcriptions can be of variable accuracy depending on the method used, the variability in topography, and the number of field-boundaries and other fixed points visible in the oblique photographs. When the NMP transcription was compared to the geophysical survey, it was noticed these features could occasionally be 5–10 m out, which is not unexpected,

though on a couple of occasions in very large fields they were 25 m out. Where it was clear an aerial photographic feature related to specific geophysical ones, they have now been moved to correspond, with the geophysical survey being presumed to have greater locational precision.

Some of the cropmarks have also been removed from the printed images in the Atlas. This has happened where the cropmarks clearly related to recently removed field-boundaries which still appear on enclosure and OS maps. In their place the full original field-boundaries have been shown with the 'last known date on a map' indicated by the feature to give an indication when the feature was removed.

FIELDWALKING

Corney's maps of his ceramic scatters have been digitised as approximate spreads to indicate their general location (Corney 1984). These have been shown within the Atlas. The distribution plots from the University of Reading Student Projects Survey are less detailed so have not been reproduced (Ford and Hopkins 2011), but a comparison of the two datasets is provided in the commentary for each field, so the data can be compared with other information.

GEOLOGICAL MAPS

Data have been incorporated from both the British Geological Survey's solid and drift geological maps, their Soil Survey. This has a clear relevance for appreciating both the tail-off of geophysical features over the more clayey soils off the plateau top, and also in interpreting the large pit-like features to the south-west along the stream-bed which correlate with local clay deposits (see p. 417).

HISTORIC ENVIRONMENT RECORDS

The Historic Environment Records for the area were downloaded. These covered parts of Berkshire and Hampshire. The two systems differed, but both were integrated and incorporated into the GIS.

THE NEW GEOPHYSICAL CAMPAIGNS

TECHNIQUES

Archaeological geophysics provides a range of techniques that could be used (Gater and Gaffney 2003). Large-scale coverage was envisaged, which in 2005 meant that fluxgate gradiometry was the obvious technique to use. Some trials were undertaken with the equipment available at the time, and the relatively new Bartington Grad 601-2 was selected. 38 ha were surveyed by hand within the wall and 180 ha outside (FIG. 4.1).

While fluxgate gradiometry is the standard workhorse of archaeological geophysics, it is by no means perfect, and it was important to assess how much information was being lost by not using other techniques. Over the years we developed a test-bed area between the Forum and Insula IX (FIG. 4.2). We compared different gradiometry equipment: Geoscan Research FM256, Bartington Grad 601-2 and Foerster gradiometry system (Fry 2007); and colleagues from English Heritage came to experiment with a caesium magnetometer system and new forms of ground penetrating radar (GPR: Linford *et al.* 2010). Some experimental gamma-ray survey work has also taken place by Defence Science and Technology Laboratories, Nuvia and ourselves. We also conducted earth resistance survey in a few locations, using both the twin probe Geoscan RM15, and the mobile sensor platform MSP40. The most obvious features that were consistently missed by the fluxgate gradiometry but were picked up by resistivity were the Roman roads. Magnetic techniques consistently failed to show the hard-packed gravels against a natural gravel background, and a known limitation of the gradiometer technique is that it often struggles to detect flat laminar structures. The roads were only visible close to the town because

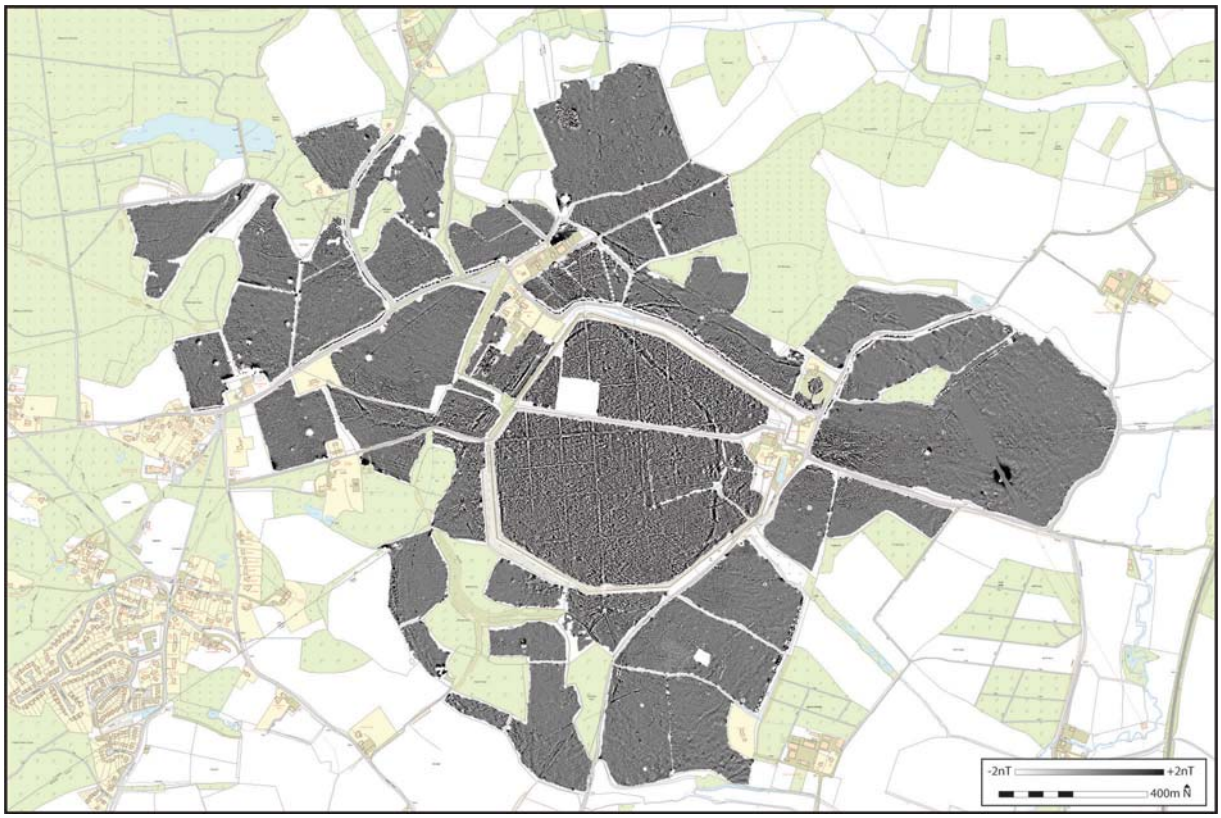

FIG. 4.1. The extent of the fluxgate gradiometry survey in and around Silchester.

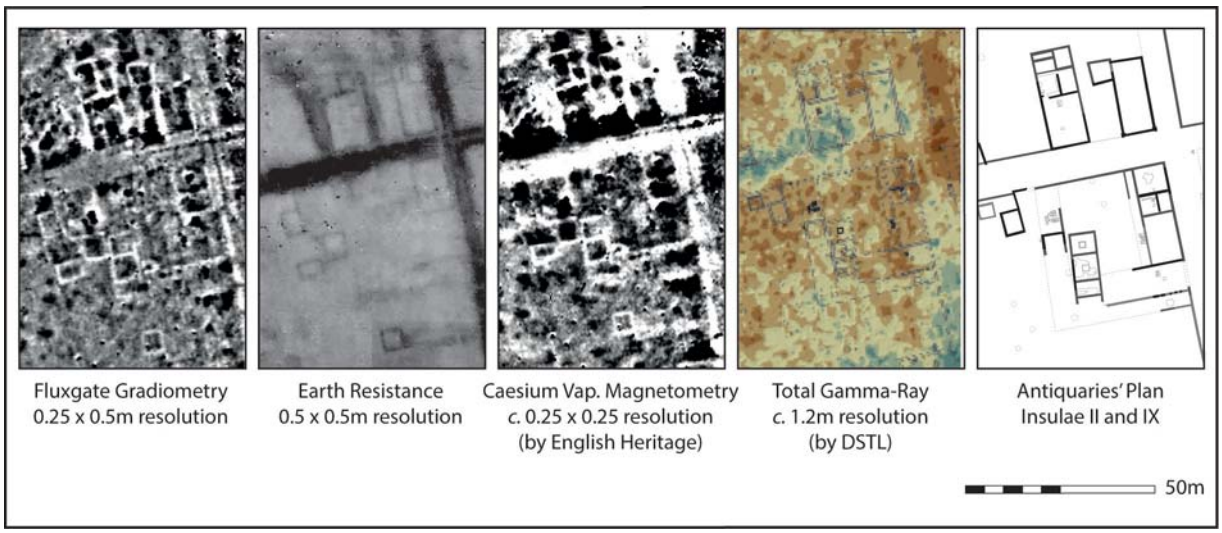

FIG. 4.2. Comparative techniques 1, from left to right: fluxgate gradiometry; earth resistance; caesium vapour magnetometry (by English Heritage); total gamma-ray (by DSTL); and from the Antiquaries' excavation (Insulae II and IX).

of the visibility of the ditches on either side of them providing a magnetic contrast. Finally Rob Fry conducted some electrical resistance tomography (ERT) and GPR traverses across a number of the ditches and earthworks to try to reveal their structure (Fry 2010).

Comparison of the fluxgate gradiometer with the caesium magnetometer showed that while the

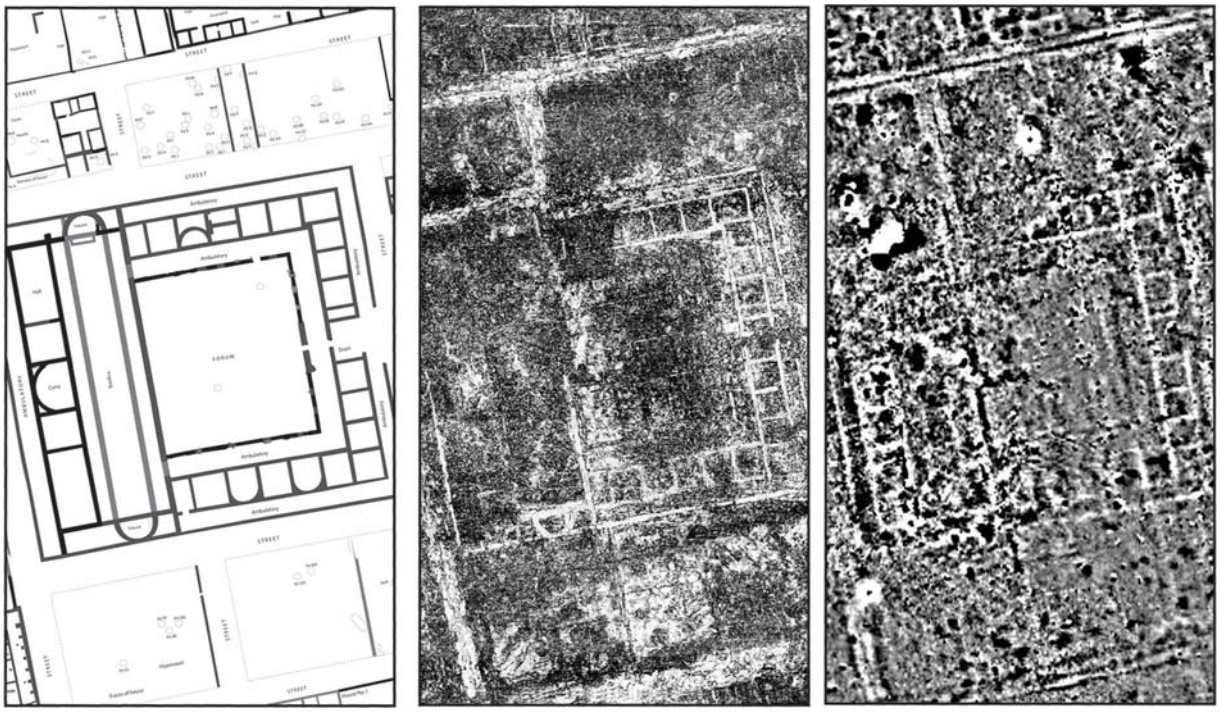

FIG. 4.3. Comparative techniques 2 – The Forum area: Antiquaries' plan (left); ground penetrating radar (middle); fluxgate gradiometry (right).

latter was more sensitive, the difference was marginal on this geology (for a deeper comparison see Linford *et al.* 2007) — the soil and geology being predominantly fine loamy soils over the gravel plateau, though sands and clays on the plateau slopes.

Later in the survey programme the opportunity arose to see some medium-scale GPR conducted by English Heritage (Linford *et al.* 2010). Again, while there is absolutely no doubt about the level of detail provided by GPR, the images show that for general coverage the gradiometry still compared against it very well (FIG. 4.3).

Fluxgate gradiometry was therefore the technique of choice for our broad coverage. Past work had shown that standard resolution work was not revealing plans even remotely comparable to Hodge's plan, so a high resolution survey was planned. Our benchmarks were the 1994–7 Wroxeter survey which had used 1.0 x 0.25 m (Gaffney and Gaffney 2000, 83), the 2001 English Heritage survey within Silchester which had done the same (Martin 2000), and the contemporary 2006–7 Caistor St Edmund Survey at 1.0 x *c.* 0.1 m (Bescoby *et al.* 2009, 289). We chose to reduce the transect width so that all of the interior, and the exterior in known 'high-intensity areas' from Corney's fieldwalking, was surveyed at a high resolution (0.5 x 0.25 m) while other peripheral areas were surveyed at a relatively standard resolution (1.0 x 0.25 m), in this case prioritising coverage over spatial resolution.

In selected locations we carried out follow-up work, including small areas of resistivity to try to understand what linear magnetic anomalies represented. In addition, Rob Fry conducted some Electrical Resistance Tomography and GPR transects across sections of the line of some of the defences to try to characterise the profiles of some of the in-filled ditches (Fry 2010).

FIELDSURVEY PRACTICALITIES

The interior was surveyed in 2006 as a teaching project, and in the case of the small enclosure adjacent to the church as a student dissertation in 2007 (Saffrey 2008). The exterior was surveyed in 2008–9 by Rob Fry with the assistance of three student placements: Lee Calderbank, Nick Crabb and Alice James. The survey around the Amphitheatre was also used as the basis for a

dissertation (Crabb 2009). While there was some arable, much was now under pasture, and supported a wide range of livestock, from the more expected cattle and sheep, to ponies and shire horses, and even the more exotic lamas and alpacas.

POSITIONING

The survey was undertaken as Differential Global Positioning Systems (DGPS) were becoming more common, so while the majority of grids were laid out using DGPS, others were set out by EDM or tape and measured in to field-boundaries. It might be imagined that the advent of DGPS would mean that all our surveys could be located accurately, and that is true up to a point. However, the precision of DGPS on a global projection does not always match well with the not-quite-so-precise OS maps. Grid corners were occasionally found on the wrong side of a fence-line when imported into ArcGIS. In practice, therefore, many of the surveys were positioned using measurements to field-boundaries; so while there will be relative-positioning accuracy from the data within fields, there may be errors of up to a couple of metres in actual positioning relative to the general accuracy of OS maps.

GRADIOMETRY DATA PROCESSING

All the data were processed in a consistent manner using Geoscan's Geoplot v3. (1) Zero-mean traverse with a threshold of ±5 nT (increased to ±10 nT in some noisy fields). (2) Destaggering so that slight walking/handling issues could be eliminated from the data. The degree and consistency of stagger varied inversely to the experience of the operator, so some of the interior walked by students new to surveying required significant adjustments, and where the errors could not be alleviated in processing the grids were re-surveyed. (3) The data were interpolated from 0.5 x 0.25 m to 0.25 x 0.25 m. No smoothing or low-pass filters were used.

Within the Atlas the Interior sheets have been shown on a greyscale of ±7 nT; while the Exterior sheets have been shown at ±2 nT. The level of magnetic activity was so much stronger within the walls than outside, so that plotting them at the same contrast setting would never show both at their best.

Generally the data collection outside the Town Walls, obtained by a small team, was better than that in the interior, collected by a large number of students gaining experience.

PRELIMINARY INTERPRETATION: DIGITISATION

In order to turn these data into information the preliminary interpretation had to be undertaken. The challenges of doing this have been noted by other large surveys, such as the Wroxeter Hinterland Project (WHP). Quality assurance in terms of consistency is a real issue if different people are interpreting the same fuzzy images. Indeed it is also a problem when the same person is interpreting them at different stages of weariness. So, similar to the WHP, a series of criteria was drawn up for each type of feature. A variety of greyscale images were created for each plot so that it was easier to detect features of different magnitudes. Images were produced to aid interpretation on absolute linear greyscales of ±2, 7, 10 nT.

These were then exported into Adobe Illustrator, within which new layers were created for each feature type. These were then used for the maps within this volume; however, they were also then exported as DXF files into ArcGIS.

SECONDARY INTERPRETATION: COMBINATION AND ADJUSTMENTS

The approach to interpreting the geophysics taken here is at variance with many surveys, and quite deliberately so. As with many geophysical surveys it would have been possible to draw some sketchy lines around fuzzy buildings and create yet another image of the town, though one perhaps less aesthetically pleasing than the crisp clear Indian ink lines of Hodge's Great Plan or the Royal Commission's interpretation of the aerial photographic evidence.

TABLE 4.2. DESCRIPTION OF FLUXGATE GRADIOMETRY FEATURE CLASSES

Feature class	Description
Spikes	These are small localised highly magnetic responses in the dataset which give off strong adjacent positive and negative readings (dipoles). They usually denote metallic remains which can be ancient or modern, but can also represent other highly magnetised features such as hearths or furnaces. They are identified off a ±10 nT greyscale image highlighting readings over 10 nT as black, less than -10 nT as white and all others as a uniform grey.
Feature / Pit	The term 'pit' is potentially problematic as these responses could easily also mark the location of wells, cesspits, areas of light disturbance, or just patches of slightly magnetic anomalies in the ground. The 'pits' have also been subdivided into three categories which can help identify their use further and make it clearer which pits have a higher magnetic response due to the nature of their contents.
Pits >10 nT	Circular or irregular positive anomalies. Identified off a black and white image showing features above 10 nT and below -10 nT.
Pits >7 nT	Circular or irregular positive anomalies. Identified off a ±7 nT greyscale image.
Pits >2 nT	Circular or irregular positive anomalies. Identified off a ±2 nT greyscale image.
Modern disturbance	Areas with lots of dipolar spikes characterised by large magnetic variance.
Linear feature (positive)	Similar to pits, but elongated and with positive (black) values.
Linear feature (negative)	Similar to pits, but elongated and with negative (white) values.
Road drains	Linear features running axially down the supposed location of roadways (which do not show as and of themselves).
Victorian trenches	Linear features within the town that are often running diagonally across an insula in parallel lines.
Field drains	Linear features outside the Town Walls that run in parallel lines down the line of slope.
Modern features	Known modern interference, usually recent field-boundaries.
Noise	Noisy areas outside the Town Walls, potentially indicative of buildings (ancient or modern), though no clear outline can be discerned.
Walls	(Interior only) straight linear features, usually negative, usually adding detail to an existing known building from the Antiquaries' plans or aerial photography.
Possible buildings	(Exterior only) small areas showing rectilinear alignments, usually showing as negative features.
Interpretative additions	
Roads	Roads do not show up directly, but indirectly due to the lack of other feature classes encroaching on them, or because of the visibility of roadside ditches. There is therefore an element of judgement. They could be ascertained by use of resistance surveys, but this only took place in a small number of locations.
Cemetery area	Clusters of lowly-magnetic elongated pits which look as if they have a similar orientation suggestive of an inhumation cemetery.

The purpose of this Atlas is to integrate datasets. One of the best of these at Silchester is that of the Antiquaries' detailed building plans. It was possible to compare directly these plans with the geophysical results. On the majority of occasions the buildings would be very clear, and the match would be near-perfect. Other times the majority of walls would show in the geophysics, but there might also be a bit of noise, so the match was good. Occasionally the building was there

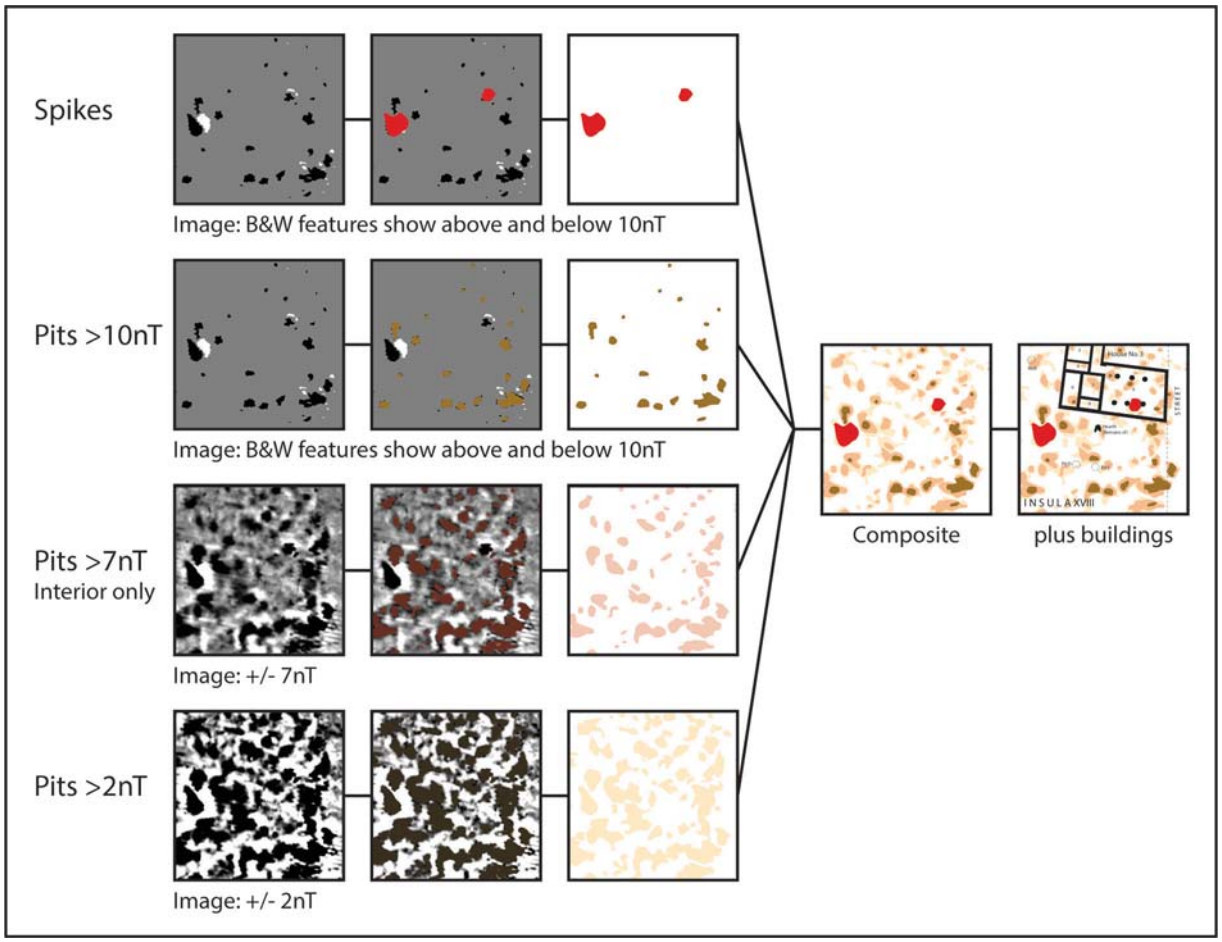

FIG. 4.4. Methodology 1: pits and spikes.

in the image, but only very faintly. There can be many reasons for these differences: perhaps the walls were under a much greater overburden of topsoil or sediment; perhaps the walls were made of a different material, had been robbed away or had been removed by the excavators? Only very occasionally was there an Antiquaries' plan where the corresponding geophysical image struggled to make a clear match, though even in those cases there were a few hints and common features to confirm the old house plan was not pure invention (FIG. 4.5).

Given the apparent reliability of the Antiquaries' house plans, it seemed sensible to use the best quality evidence as a basis for the interpretative plan, so the procedure has been to take the digitised plan, and to adjust its location so that it was precisely on top of its geophysical impression. The 'reproduced' plans of the Antiquaries' excavations in the Atlas of the Interior therefore show the houses in their slightly revised positions. When the houses had been digitised and superimposed over the geophysical survey data, it was clear that the survey was still managing to reveal a number of additional walls that the Antiquaries had not uncovered. These were then added to the plan.

Another source of evidence that we have are the digitised aerial photographs from the RCHME/NMP survey. The aerial photography interpreters had to make judgements about what were and were not real features. Most clearly related to features found by the Antiquaries, but a few did not. Sometimes new buildings, such as a rectangular structure on the north edge of the current excavations in Insula IX, proved to be so elusive upon excavation that they probably never existed at all. Another building was accidentally transcribed twice from different photographs: the 'Temple of Mars' in Insula XXXV (one image showed a simple square building which was transcribed to be in exactly the right place for the temple; a second better image, however,

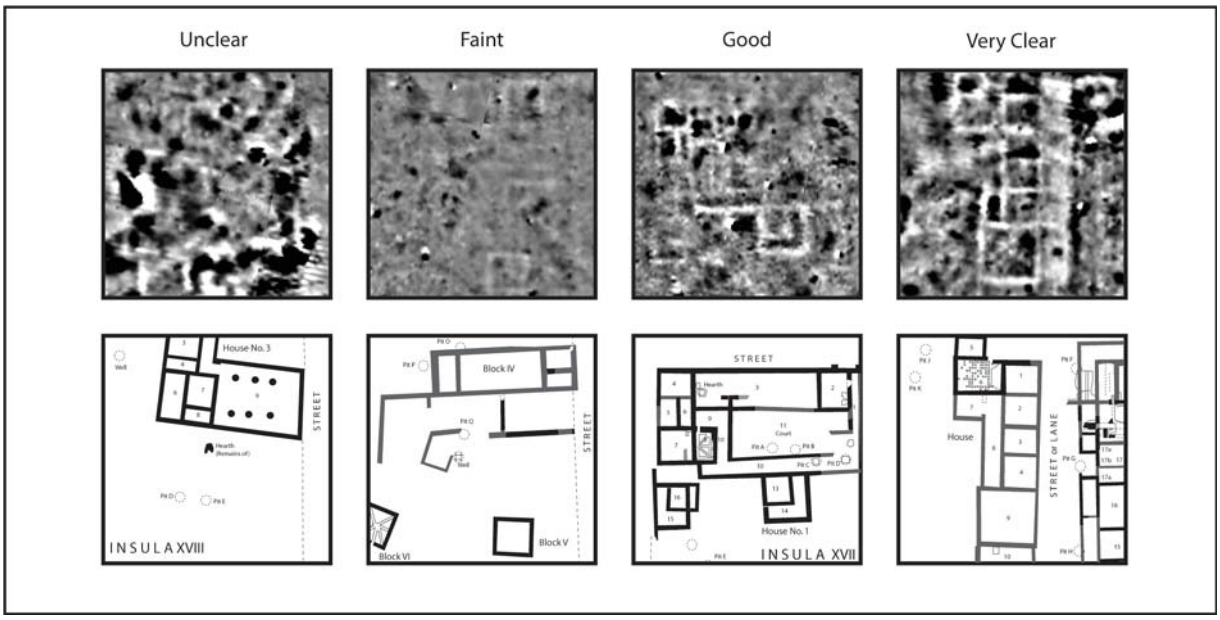

FIG. 4.5. Methodology 2: the visibility of houses in the fluxgate gradiometry data (greyscale ±7 nT).

showed the porch to the east, and recognised the slightly misaligned angle to the grid, but this duplicate was transcribed just a little to the north-east of its other apparition). Interpretations are fallible, but are the essence of archaeology. So, in a similar fashion to the combination of Hodge's plan and the geophysical survey, the aerial photographic plan was also superimposed over the combined interpretation to note additional features which had not already been noticed (FIG. 4.6).

The final plan, therefore, is a composite of geophysical pits, linear anomalies, Victorian building plans and other sources of evidence.

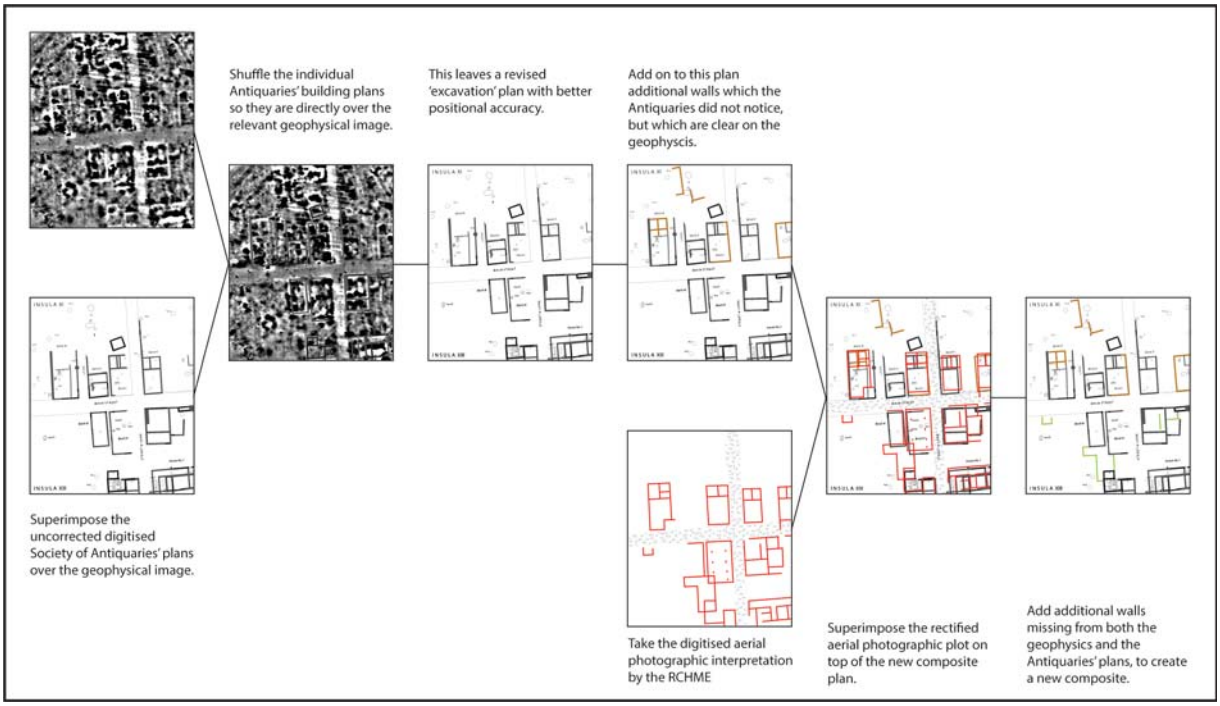

FIG. 4.6. Methodology 3: the positioning and combination of evidence for houses.

It is worth ending on a note of caution. These plans will still fail to show certain types of features. FIG. 5.18 compares the number of features found in the modern excavation of Insula IX to the features found by the Antiquaries. Since the gradiometry data only added a small number of walls and buildings on the overall interior plan to those noted by the Antiquaries, it is likely that the gradiometry too has missed a significant number of timber buildings. The geophysical data look as if they show pits and wells fairly well, and some areas of noise will be building areas, but the overall plan will be as deficient as the Great Plan was in not showing the presence of early timber buildings.

CREATING THE ATLAS

The Atlas contains multiple images of the varying datasets for each area, and a text which relates the interventions that have taken place within each area and the core evidence. Grid References have been removed from the images to hinder marginally any inappropriate subsequent metal-detecting at the site of certain features. The maps of the exterior are all aligned on National Grid North, while the maps of the interior are all aligned on the Roman street-grid, which is 4.1 degrees off National Grid North.

CHAPTER 5

MAPPING THE INTERIOR

INTRODUCTION

The insula numbering system that has been applied to Silchester derives from the sequence in which the Society of Antiquaries excavated the site in the late nineteenth to early twentieth century, which was in a far from systematic order. The atlas presented here is in geographical order (FIG. 5.2); however, for ease of finding features referenced in other works, this concordance is provided between the insulae numbers and each map sheet:

TABLE 5.1. CONCORDANCE OF INSULA NUMBER, INTERIOR MAP SHEET AND FIGURE REFERENCES

Insula I	Interior 5	FIGS 5.15–17
Insula II	Interior 9	FIGS 5.28–30
Insula III	Interior 9	FIGS 5.28–30
Insula IV (Forum)	Interior 9	FIGS 5.28–30
Insula V	Interior 10	FIGS 5.32–34
Insula VI	Interior 10	FIGS. 5.32–34
Insula VII	Interior 13	FIGS 5.41–43
Insula VIII	Interior 16	FIGS 5.50–52
Insula IX	Interior 5	FIGS 5.15–17
Insula X	Interior 4	FIGS 5.12–14
Insula XI	Interior 4	FIGS 5.12–14
Insula XII	Interior 1	FIGS 5.3–5
Insula XIII	Interior 8	FIGS 5.25–27
Insula XIV	Interior 8	FIGS 5.25–27
Insula XV	Interior 8	FIGS 5.25–27
Insula XVI	Interior 8	FIGS 5.25–27
Insula XVII	Interior 13	FIGS 5.41–43
Insula XVIII	Interior 15	FIGS 5.47–49
Insula XIX	Interior 12	FIGS 5.38–40
Insula XX	Interior 12	FIGS 5.38–40
Insula XXI	Interior 6	FIGS 5.19–21
Insula XXIIa/b	Interior 3	FIGS 5.9–11
Insula XXIII	Interior 2	FIGS 5.6–8
Insula XXIV	Interior 2	FIGS 5.6–8
Insula XXV	Interior 1	FIGS 5.3–5
Insula XXVI	Interior 1	FIGS. 5.3–5
Insula XXVII	Interior 6	FIGS 5.19–21
Insula XXVIII	Interior 10	FIGS 5.32–34
Insula XXIX	Interior 10 and 11, discussed under 11	FIGS 5.32–37

Insula XXX	Interior 11	FIGS 5.35–37
Insula XXXI	Interior 10 and 11, discussed under 11	FIGS 5.32–37
Insula XXXII	Interior 11	FIGS. 5.35–37
Insula XXXIIIa	Interior 14	FIGS 5.44–46
Insula XXXIIIb	Interior 17	FIGS. 5.53–55
Insula XXXIV	Interior 10	FIGS 5.32–34
Insula XXXV	Interior 14	FIGS 5.44–46
Insula XXXVI	Interior 7	FIGS. 5.22–24
Insula XXXVII	Interior 7 and 11, discussed under 7	FIGS 5.22–24, 35–37

KEY

The images

The images are orientated to the street-grid, which is 4.1 degrees off National Grid North. Three plans are shown of each area.

The first in each set shows the Antiquaries' plans (positionally adjusted) superimposed over the modern OS Carto plan of the town and some smoothed contour lines derived from the LiDAR data, at 0.25 m intervals, to give an impression of the topography of the interior. The Antiquaries' plans as originally published showed the walls of the buildings in multiple shades of black and grey; sometimes comparison with the text suggests these represented phases, sometimes they represented walls that had or had not been robbed out. No consistent interpretation can be drawn from the shading except for some kind of relative difference, be it chronological or structural. In the digitisation and reproduction here the differential shades have simply been reproduced. The text is that of the Antiquaries' plans, so there are various archaisms such as calling the *Mansio* the *Hospitium*. The location of other post-Antiquaries excavations has also been shown. Also the Antiquaries gave each building within an insula a sequential number that started afresh for each insula; so an image containing two insulae may contain two 'House 1's. In the text these are referred to with their insula number as well for clarity (e.g. House IX.1).

The second plan shows the fluxgate gradiometry results on a greyscale of ±7 nT for the interior and ±2 nT outside the walls where the magnetic contrast in readings is much lower. This is superimposed onto the same OS Carto image as the above.

The third plan shows an interpretation of the fluxgate gradiometry with the Antiquaries' plans and also additional RCHME aerial photographic evidence. The interpretation of RCHME has been preferred above that of Boon (1974); but where he did suspect there were significant additional buildings, this is indicated in the text. The background here is the LiDAR data, again to give a feeling for the topography without having modern features from the OS intrude.

History of interventions

This section lists the dates and directors of all the known interventions in that area within the Town Walls. Those excavating sections outside are dealt with when discussing the exterior plans. Reference is made to the primary excavation report, if there is one, or the most extensive description, if there is not.

Additional near-contemporary accounts

This section cites additional near-contemporary literature. Some are interim reports, but there are other types of report as well. During the Victorian and Edwardian excavations the works received great publicity. The directors gave lectures to learned local societies which were noted and transcribed in proceedings, and visitors came and were guided around the site. Sometimes a small amount of additional information can be found in these accounts that supplements the final reports.

Description

The objective in this section has been to give a short succinct description, without repeating the significant room-by-room detail that appeared in the Antiquaries' reports, drawing out indicators of sequence and development, even if dating may be highly problematic. So, if a building plan can be analysed and a phasing has been suggested, this is highlighted. If new features have been revealed by the geophysical survey, these are highlighted. Secondary literature where the remains featured is also cited here, particularly in relation to debate over interpretation. If there is a short unreferenced quotation, it is from the primary Antiquaries' report for that insula.

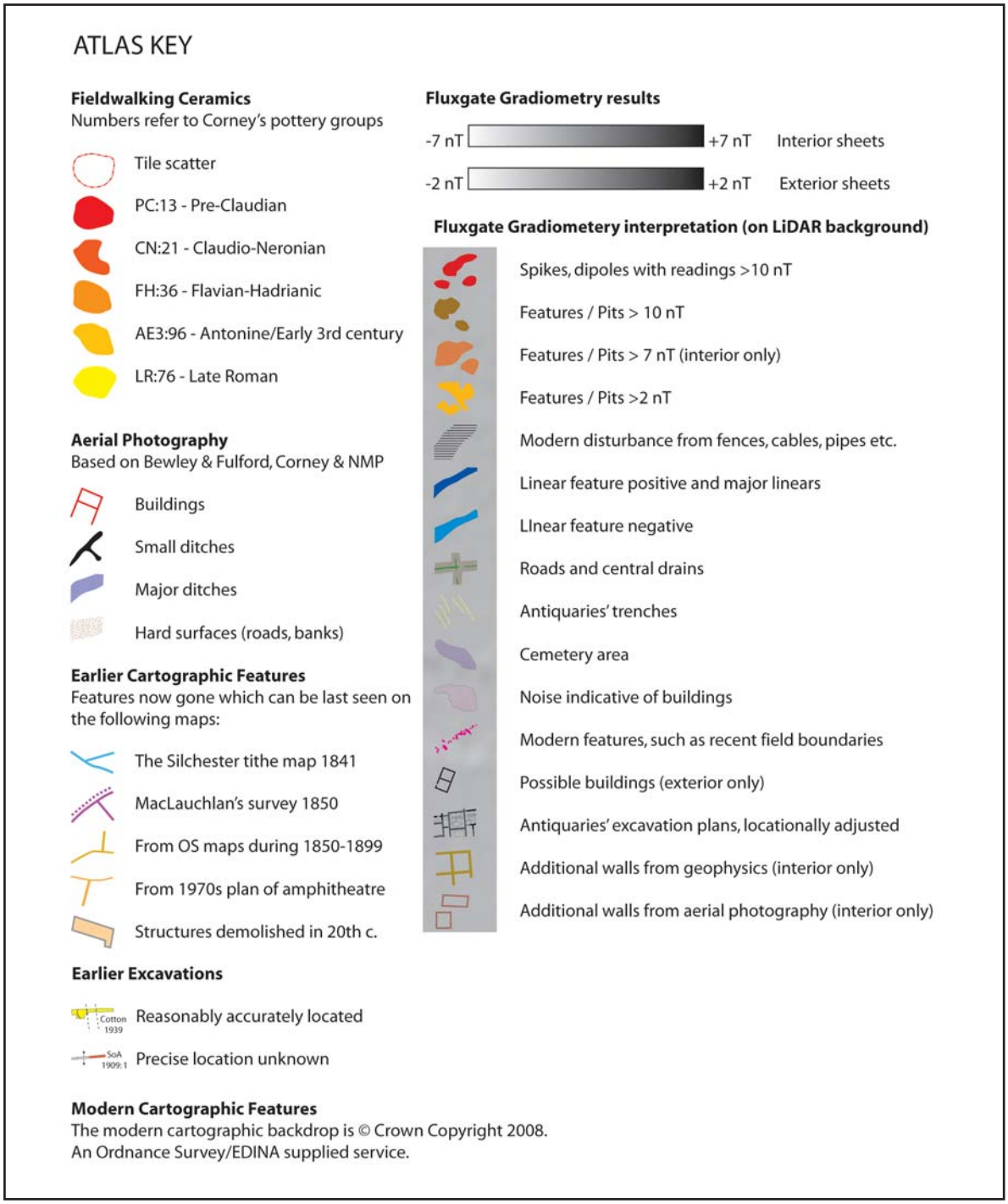

FIG. 5.1. Key.

The Antiquaries divided their finds into 'houses' and 'blocks'. While Joyce, Monro and Langshaw had used the term 'block' to refer to their trenches, the Antiquaries meant by it simple houses or strip buildings, as opposed to more complicated houses. Their method of numbering the houses, block buildings and pits varied from season to season. Sometimes Arabic numerals were used, sometimes Roman. The pits usually had letters, though sometimes nothing at all. These have been faithfully reproduced in all their variety on the plans. To create a measure of consistency in the text all are referred to by the troika of 'feature class'-'insula'-'number or letter', e.g. House XVII.1, Pit I.A or Block XXIII.III. Where mosaics have been referred to the citation in Neal and Cosh is given, as this volume represents the latest scholarship, and also reproduces in colour the original mosaic paintings by Fox now stored in the archive of the Society of Antiquaries. Additional buildings have been given new numbers in the Antiquaries' sequence. The only variation in this is within Insula IX where Fulford and Clarke's excavation references have been given to the new buildings discovered there.

Notable finds

The reporting of finds from the Antiquaries' excavations was notably variable, just like the retention of the finds, so this section is unavoidably slightly haphazard and inconsistent, as are the original reports.

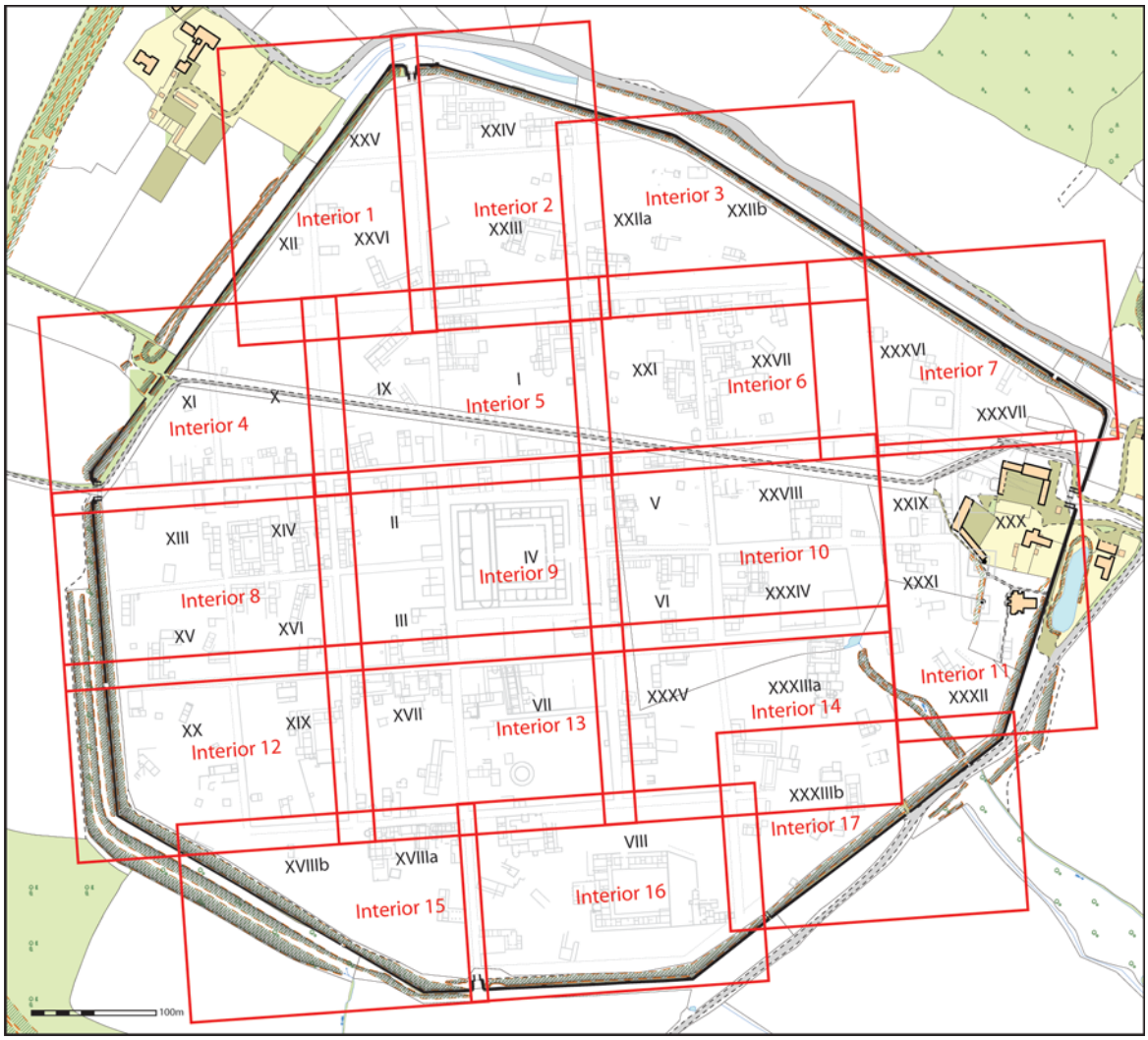

FIG. 5.2. Index to the Interior.

INTERIOR 1: INSULAE XII, XXV AND XXVI (FIGS 5.3–5)

HISTORY OF INTERVENTIONS

1866 House XXVI.3 was excavated as 'Block IV' (Joyce 1881a).
1894 Excavation of Insula XII (Fox 1895, 457–9).
1900 Excavation of Insula XXV (Fox and St John Hope 1901, 241–2).
1900 Excavation of Insula XXVI (Fox and St John Hope 1901, 242–3).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

'Block IV': lectures (Joyce 1873, 15; 1867a, 494); a discussion (Hilton Price 1887).
Insula XII: a lecture (Fox 1894; Fox *et al.* 1895a); a note (Fox 1899b, 84).
Insulae XXV–XXVI: a note with some details (Anon. 1901); a lecture (Fox *et al.* 1901).

DESCRIPTION

The road between Insulae XXV and XXVI was said to be very ill defined.

Insula XII

Insula XII comprised only a small triangular segment, having been seriously truncated by the town defences (see Exteriors 9 and 13). The Antiquaries' trenching only revealed a circular furnace and two squarish buildings at the north-east corner; Block XII.I to the north was paved with square tiles, while south of it Block XII.II had a hypocaust (Boon 1974, hypocaust 160, 258; plan 189). They appeared to be entirely detached, though the geophysical survey hints that they may be part of a larger building. A pit at the south-east angle of the insula, infuriatingly not shown on the Antiquaries' plan, was reported to contain a dozen complete pots.

Unfortunately the fluxgate gradiometry in this area was totally dominated by metallic noise from tent pegs, bottle tops and other material from the campsite used for the 1997–2014 Insula IX excavations. Additional structures have been added from the RCHME aerial photographic evidence (Bewley and Fulford 1996). Boon, however, thought he saw even more and included an additional south-facing corridor building half-way along the eastern side and three buildings on the southern side perpendicular to the road (Boon 1974, foldout plan). These have not been included as the source images which led to the interpretation could not be verified.

Insula XXV

Insula XXV was one of the Antiquaries' least productive areas; there were 'hardly any' pits and it contained only two blocks along the main north–south road. Traces of a linear feature inset and parallel to the Town Wall could be seen here which may indicate an *intra-vallum* road.

Blocks XXV.I and II were both simple rectangular structures perpendicular to the road. The most northerly, Block XXV.I, had long flues in it which the Antiquaries associated with dye works, whereas Boon just called them 'sheds' and associated them with a large barn on the north-west corner of House XXIV.2 on the other side of the road (Boon 1974, 256). The geophysical survey suggested a series of major pit-like features with strong readings in the south-east corner, on the main north–south road.

The Inner Earthwork showed itself clearly here, and two of the features the Antiquaries identified as pits close to Block XXV.II may have gone down into it although this elicited no further comment.

Insula XXVI

Insula XXVI was fairly sparsely occupied, and the Antiquaries found 'hardly any' pits in their trenching. Boon linked all the buildings in the north-west part of the insula together with those on the other side of the road in XII to form in his mind an agricultural farmyard. House XXVI.1

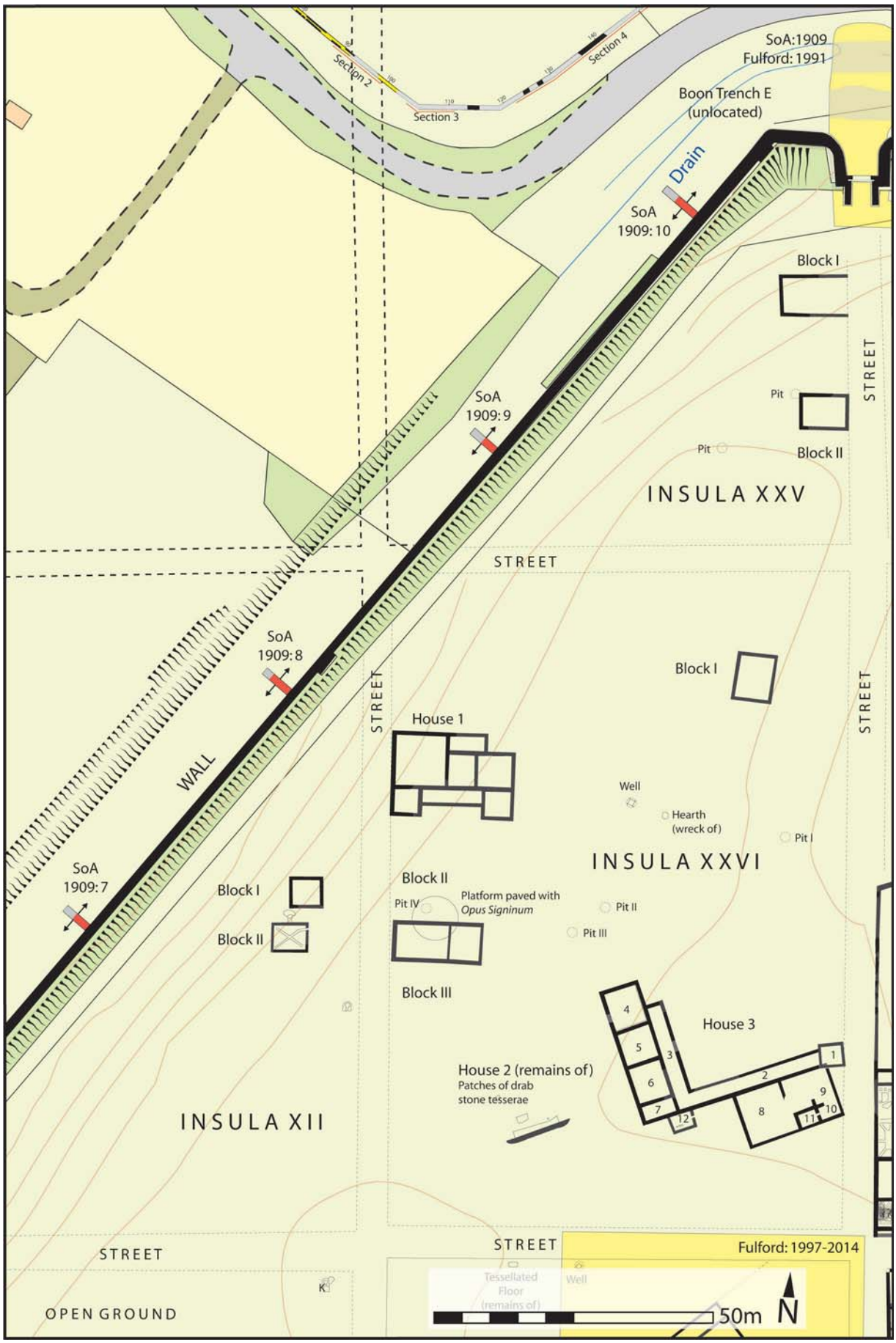

FIG. 5.3. Interior 1 – Antiquaries' plans and modern topography.

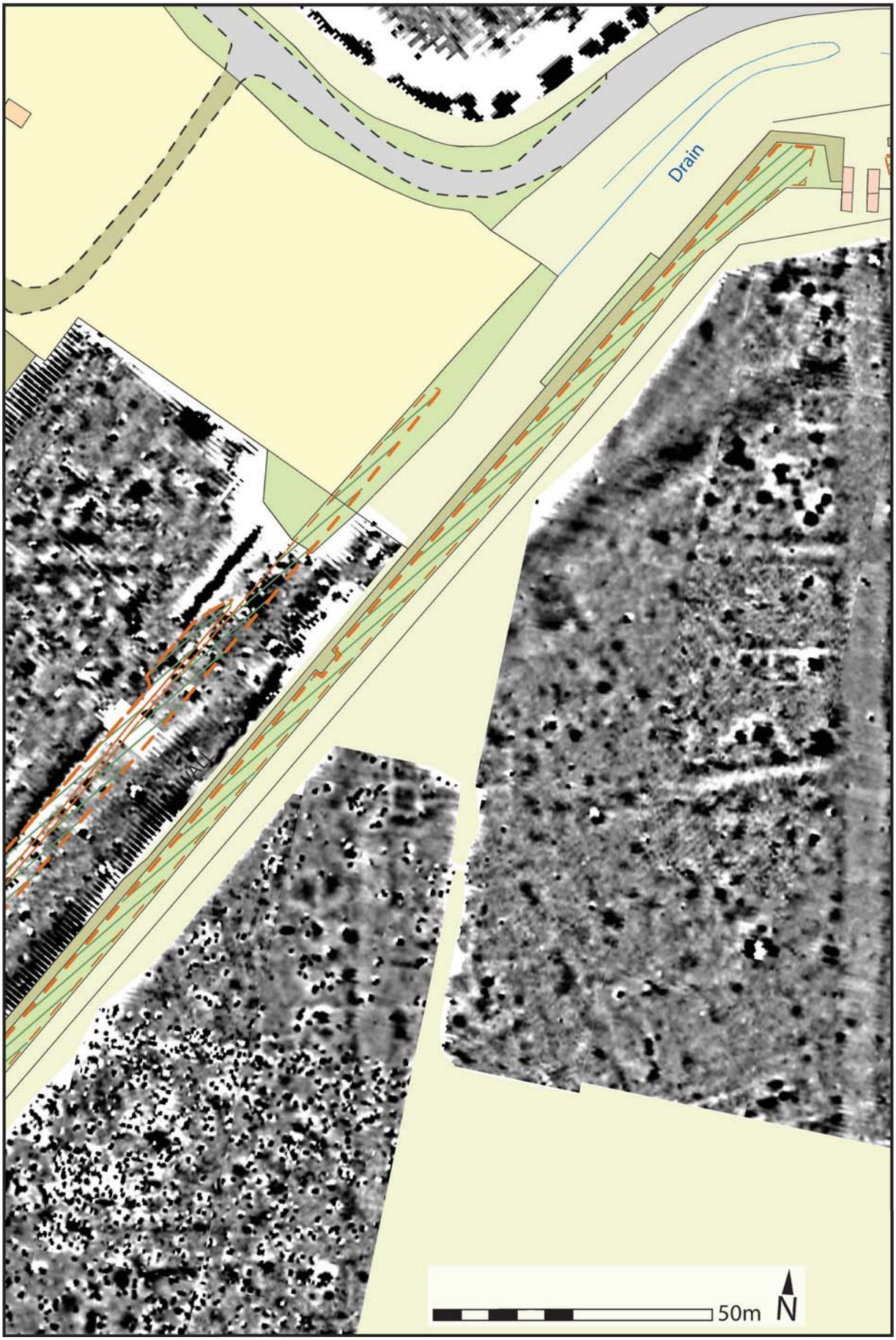

FIG. 5.4. Interior 1 – fluxgate gradiometry image (± 7 nT).

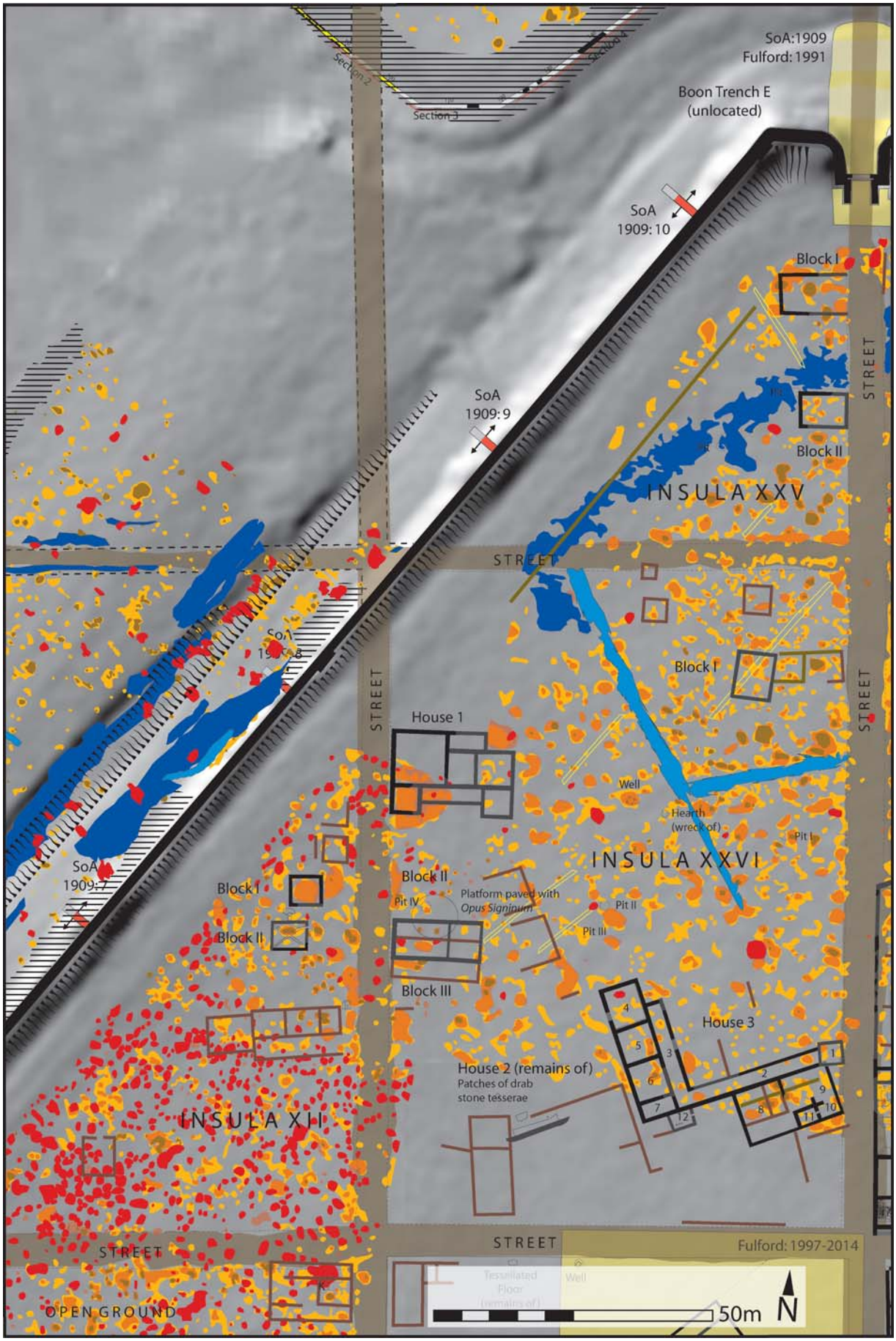

FIG. 5.5. Interior 1 – interpretative plan.

lay at its heart with the 'threshing floor' to the south (Block XXVI.II) superseded by Block XXVI.III, and associated with them the square building or granary (Block XII.I) and hypocaust (Block XII.II) on the other side of the road (Boon 1974, 261).

House XXVI.1 was a simple corridor house with a portico and pavilions on the south-facing side (later single-corridor type, Berry 1951) (Boon 1974, layout 189, 191).

House XXVI.2 comprised insubstantial remains, though aerial photography suggested this might be related to the more substantial House XXVI.3 to the east.

House XXVI.3 lay at an angle to the street-grid which had previously been excavated by Joyce (his 'Block IV'). This was his least interesting building excavated yet, 'which may well be consigned to oblivion' (Joyce 1881a, 330). In origin it probably began as just the north–south range; this then had an east-facing portico added to it; this itself then turned eastwards adding another set of rooms. Finally a porch was added at a different angle linking the complex to the street which was on a different alignment (Boon 1974, 192). The mosaics within the rooms do not help clarify the date (Mosaics 321.90–2, Neal and Cosh 2009, 231–2). Both geophysics and aerial photography suggest the addition of a few walls indicating that the structure is a lot more complicated.

Block XXVI.I was a small square structure in the north-east corner. Aerial photography suggests there were others in the vicinity and perhaps a two-roomed building adjacent to the road. The geophysical results also suggest this building is a two- to three-roomed corridor building, aligned to the north–south road.

Blocks XXVI.II–III: Block XXVI.II was an 8.2 m diameter circular feature of flint rubble sealed by *opus signinum*, with a 0.22–0.30 m wide vertical-sided gully around it. This may be the remains of an earlier roundhouse with a Romanised flooring, although alternative interpretations as a dovecot (Chambers 1920, 191) and a threshing-floor (Boon 1974, 257) have been suggested. This structure was later sealed by Block XXVI.III, a simple two-room rectangular building.

NOTABLE FINDS

The 1900 season finds in Reading Museum have better provenance records than many. Pit XII.B yielded a dozen complete pots, deposited deep down in three distinct layers.

INTERIOR 2: INSULAE XXIII AND XXIV (FIGS 5.6–8)

HISTORY OF INTERVENTIONS

1865	House XXIII.1 excavated as 'Block III' (Joyce 1876b).
1900	Excavation of Insula XXIII (Fox and St John Hope 1901, 229–37).
1899–1900	Excavation of Insula XXIV (Fox and St John Hope 1901, 237–41).
1955	In Insula XXIII: Trench B across Inner Earthwork (Boon 1969, 6–9).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

'Block III': lectures (Joyce 1867b; 1873, 15); a review of work undertaken (Hilton Price 1887).
Insulae XXIII–XXIV: a note (Anon. 1901); a lecture (Fox *et al.* 1901).
Trench B: an interim report (Boon 1958a, 13–14).

DESCRIPTION

Insula XXIII

Insula XXIII had two main buildings in its southern half together with a series of smaller structures; the Antiquaries found a 'considerable' number of pits, and the southern half appeared to be walled from the street. The aerial photography and the geophysical survey revealed a couple of additional small buildings on the western side; otherwise only a few additional walls to

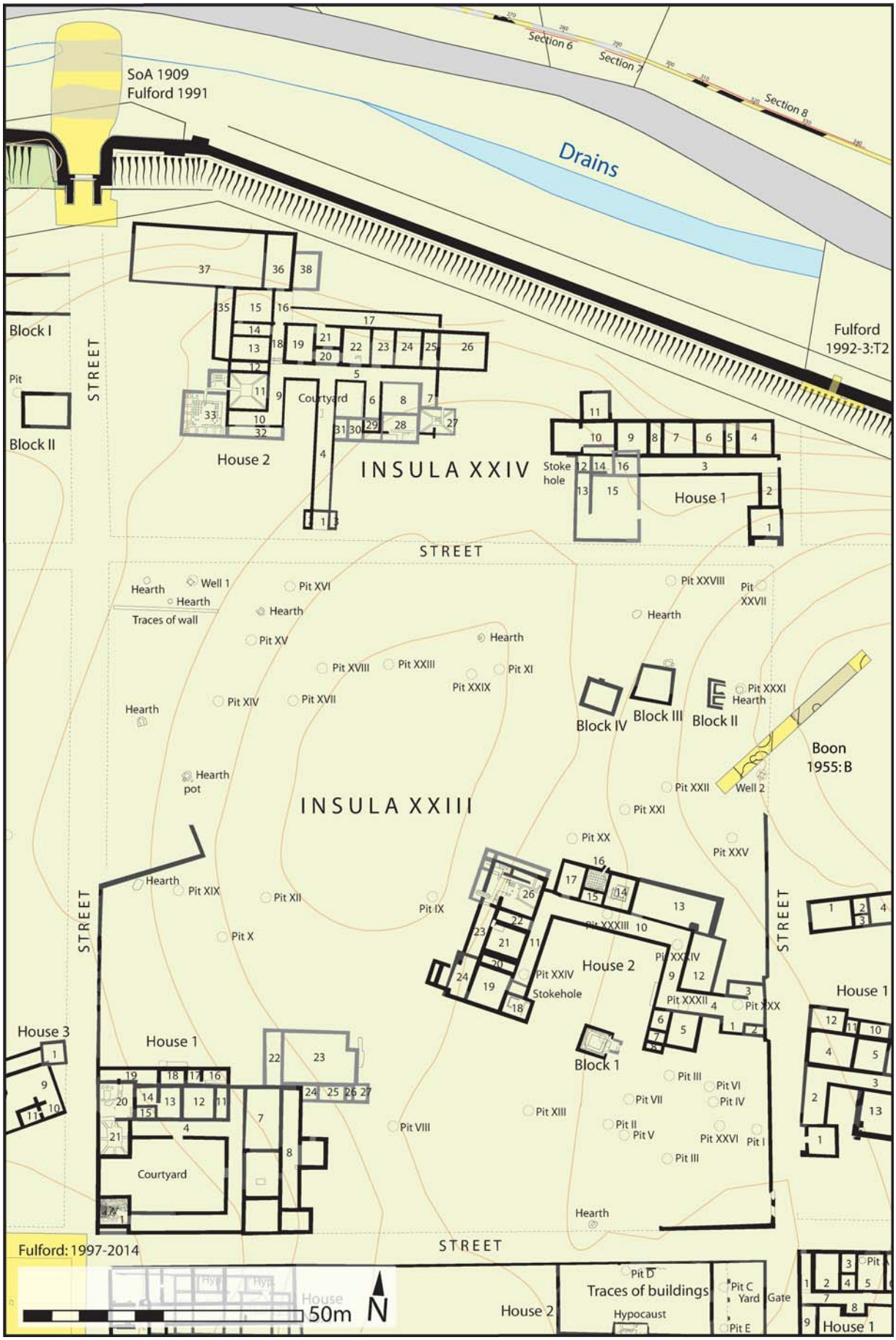

FIG. 5.6. Interior 2 – Antiquaries' plans and modern topography.

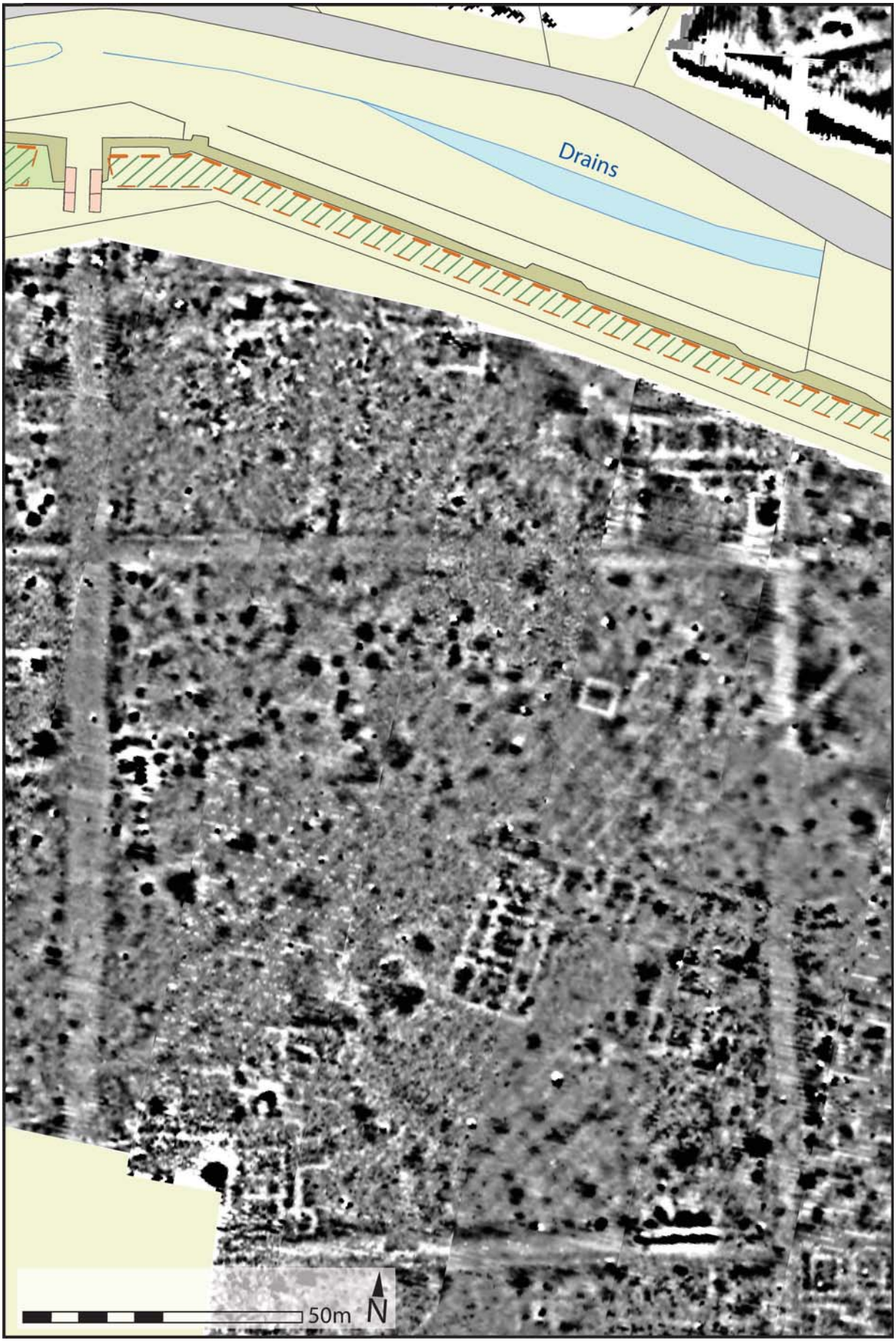

FIG. 5.7. Interior 2 – fluxgate gradiometry image (± 7 nT).

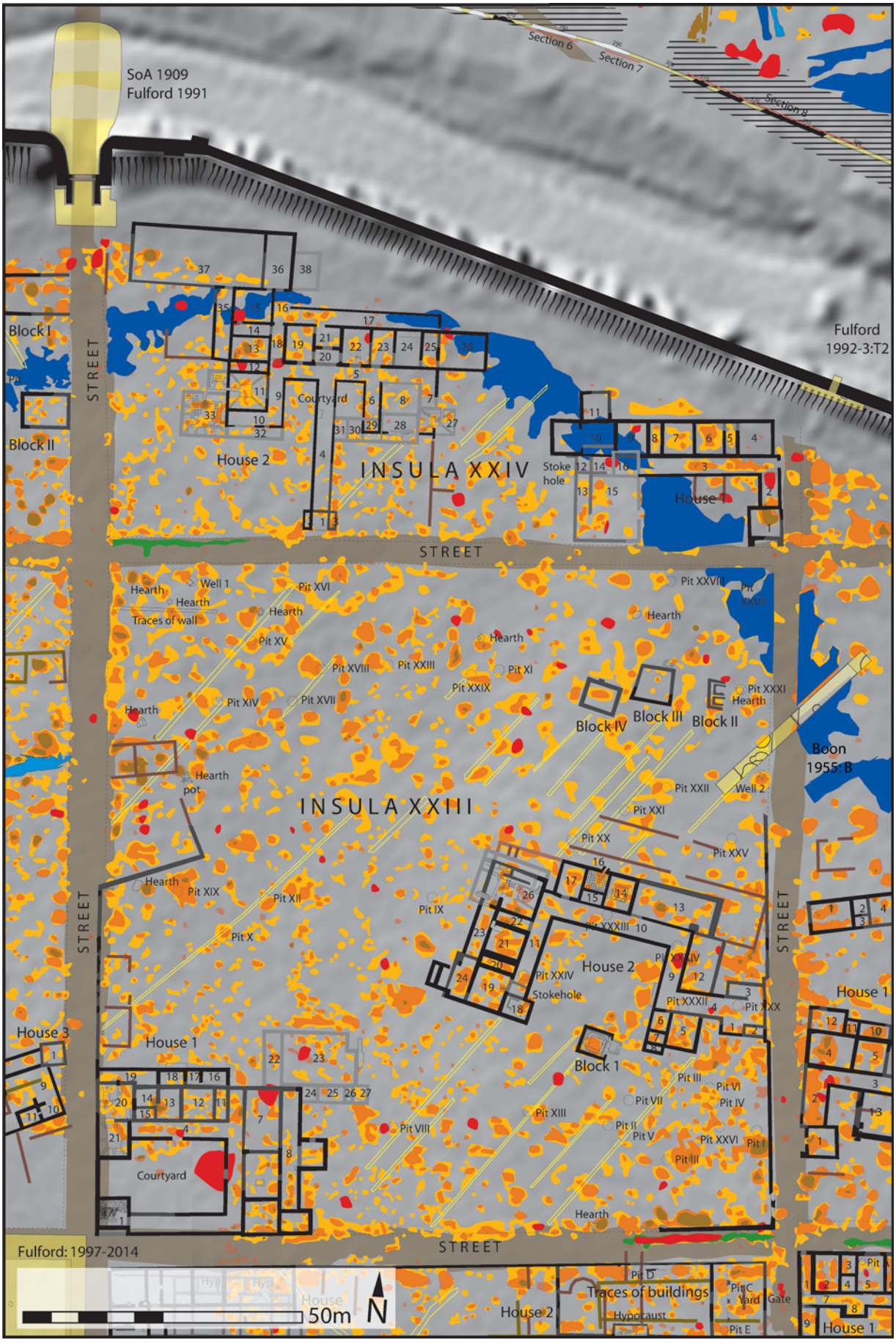

FIG. 5.8. Interior 2 – interpretative plan.

House XXIII.2 were added. The northern half had fewer features, and the edges of the road were less well defined in the Antiquaries' excavation.

House XXIII.1, in the south-west corner, had been excavated by Joyce, though the plan was enhanced by the Antiquaries. In origin it had two main ranges, to the north and east, which were unified by a portico to create a courtyard house adorned with a large number of mosaics and tiled flooring; one mosaic was considered to be possibly second century (Mosaics 321.73–6, Neal and Cosh 2009, 226–7; Williams 1971, 180; Cosh 2001, 235–6). Walthew commented upon the similarity in layout to the north wing of the villa at Lantwit Major (Glam.) where the heated and well-furnished rooms projected out into the main courtyard (Walthew 1975, 202–3). Apart from the mosaics, Joyce observed one other curious feature which he interpreted as the remains of a strong-box built into the floor of one of the rooms (Joyce 1876b; Boon 1974, 197, 206). An imaginative reconstruction can be found in Liversidge (1968, 80). See also Boon (1974, Joyce 25, 73, photograph 34, gaming-board 151, layout 192, decorative columns 200, tile flooring 208, barn and pigstye 256, 260).

House XXIII.2, in a central eastern location, comprised three ranges which had been brought together by a unifying portico. All three were irregularly aligned to the grid by about 18 degrees (Fox 1948, 175). One mosaic in the northern range was potentially second century in date, while another in a pavilion off the western range is possibly later second century (Mosaics 321.77–80, Neal and Cosh 2009, 227–8). Walthew made parallels with the east wing of Ditchley villa or the wing rooms of periods 2 and 3 at Boxmoor in the furnished and heated pavilion (room 18) projected out into the courtyard (Walthew 1975, 202). In origin it perhaps developed out of the western range, in essence a double-corridor building (early double-corridor house type, Berry 1951). The geophysics suggest the northern range also once had a double portico. Just to the south within the courtyard was Block XXIII.I, a possible shrine — a small building with a raised wooden floor and blocks suggestive of columns — though Boon at another point thought it might be a granary (Boon 1974, 160, 257). It had been built on top of a similar building on a fractionally different alignment which had a coin of Marcus Aurelius in its flooring. It was noted that the possible shrine was aligned with the western and earlier range of House XXIII.2, so imagined as being contemporary. Perring discussed Block XXIII.I suggesting its position meant it was a clear focal point in the garden. 'Gardens are appropriate locations for small outdoor shrines, in which the dialogue between nature and order, established in the layout of peristyle and garden, could sensibly be extended' (Perring 2002, 182).

Overall Boon considered the collection of buildings to have an agricultural function, with the granary (or shrine) to the south, the blocks to the north (which included a possible hypocausted drying-floor), and the Ironwork hoard from Well XXIII.2 which contained agricultural tools (Boon 1974, 260). See also Boon (1974, alignment 47, mosaics 73, 216–17, 345, 347, design 96, extension to link to street 190, layout 189, 192).

Insula XXIII south-east corner: Pit XXIII.I, to the south of House XXIII.2, cut through the rubble and plaster remains of an earlier building. This pit and Pit XXIII.III appear to be substantial on the geophysics, and there is a comparable pit-like feature due south. It may be these relate to a substantial post-pit-built structure on the corner of the insula.

Blocks XXIII.II–IV: the north-east corner had three small blocks within it, of which Block XXIII. II had a channelled hypocaust. The excavators thought all these might form part of a house whose upper layers had been obliterated. The geophysics gave no indication of any other walls.

Insula XXIII north-west corner had a number of hearths recovered within it, possibly associated with a small roadside building revealed by the geophysics. The traces of the Antiquaries' diagonal trenches are also very strong here.

Insula XXIV

Insula XXIV was identified by the Antiquaries as a long triangular area, and they failed to find traces of the short north–south road on its eastern side which is suggested by the geophysics and also appeared on Boon's plans. In the western section there were two houses. The Antiquaries found no pits in their trenching.

House XXIV.1 was on the eastern side of the insula. It was a corridor house including a hypocaust with *pilae* (Room 10); traces were seen of an earlier building underneath it. The house was built over the levelled bank and filled-in ditch of the Inner Earthwork. Boon perceived that the Town Wall was constructed especially to include both this house and House XXIV.2, bowing to the north in an otherwise unnecessary fashion (Boon 1974, 50).

House XXIV.2, on the western side of the insula, began as a very symmetrical east–west range with two southerly projecting wings, though significant additions were made over its history. The porch and long entrance corridor were discussed by Perring (2002, 148–51) who observed that it is a peculiarly distinctive feature of Silchester. The building was particularly noted for its pavements and fragments of coloured plaster: 'brilliant red panels with purple borders … while other fragments showed grounds of gold colour, blue, and green' (Mosaics 321.81–9, Neal and Cosh 2009, 229–31). Like House XXIV.1, this building was positioned on top of what was once the bank of the Inner Earthwork. Boon saw it as an agricultural establishment with the large structure on the north-west corner being a barn, with the complex linking it to the 'sheds' across the road in Insula XXV (Boon 1974, 256, 261). See also Boon (1974, relation to Town Wall 50, mosaics 73, layout 189, 191, upper storey 193, garden 198, polygonal tile flooring 208, wall-plaster 212, extension to link to the road 307, construction 341) and Perring (2002, 189–90) who conducted an analysis of the functional use of space within the building.

The Inner Earthwork passes through this area. During the time of the Antiquaries' excavations this feature had not been recognised, but they excavated a 'pit' (Pit XXIII.XXVII) which clearly went into it, descending 6.7 m. Towards the bottom they found the remains of a ladder. Boon excavated a trench across the bank and ditch which suggested this inner section had been filled-in during the Claudio-Neronian period.

NOTABLE FINDS

The 1900 season finds in Reading Museum have better provenance records than many.

A bronze patera came from Pit XXIII.X together with a brass rosette and hinges from a first-century segmental cuirass (Boon 1974, 67; Webster 1970, 183; Boon 2000, 583; 1969, fig. 5; Bishop 1991, 21). Well XXIII.1 contained a bronze bucket with multiple patches. An ironwork hoard was found in Well XXIII.2. This was a late fourth-century deposit, containing: 2 striking hammers, 10 small hammers, 2 pairs of tongs, 2 states, 1 drift, 1 chisel, 1 hand wringer or hand leaver, 2 pairs of dividers or compasses, 2 instruments for making nails, 4 iron bars, 1 axe head, 1 centre bit, 1 anvil or shoemaker's hobbling-foot, 3 plough coulters, 1 coulter, 2 forks(?) and 8 mower's anvils; also knives, choppers, bucket handles, 2 files, 2 saws, 1 spearhead, a huge padlock and fragments of another (Fox and St John Hope 1901, 246; Boon 1957, 235, n. 35; Manning 1972, 236). The votive nature of these hoards in pits is discussed in Fulford (2001, 204, 206). A Venus figurine was found in House XXIII.2.

Additional unallocated finds from these two insulae, but also possibly from XXV or XXVI, included: 'a terracotta lamp … two wheel-shaped and two enamelled brooches, and others of the bow form; the enamelled lid of a little pear-shaped box; a small plaque of bronze inlay with a slice of figured glass; a large bronze ring with paste gem, the gilt bezel of another ring, also with a paste gem; and a red carnelian gem with a figure bearing some object, also from a ring; an elaborate key handle; a little toy axe; a weight; a bell; and the usual array of tweezers, pins, spatula, spoons, etc.'

INTERIOR 3: INSULAE XXIIa AND XXIIb (FIGS 5.9–11)

HISTORY OF INTERVENTIONS

1899	Excavation of Insula XXIIa (St John Hope and Fox 1900, 98–101).
1901	Excavation of Insula XXIIb (St John Hope 1902, 17–18).
1938	Sites B, C and E: section in the back of the Town Wall (Cotton 1947).
1955	In Insula XXIIa: Trench B across Inner Earthwork (Boon 1969, 6–9).
1992–3	Trench 1: into a subsiding part of the Town Wall (Fulford 1984).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insula XXIIa: finds shown at Burlington House (Anon. 1900); a short report (Anon. 1902b); a lecture (St John Hope and Fox 1901).
Insula XXIIb: a note (Anon. 1902a); a society visit (Ditchfield 1902); a lecture (St John Hope 1903b).
Interim report on Trench B (Boon 1958a, 13–14).

DESCRIPTION

The Antiquaries failed to detect the north–south road on the eastern side of XXIIa, so did not divide Insulae XXIIa and XXIIb. Since the road can be seen on the aerial photography and geophysics, the division into A and B established by Boon has been maintained. Along the northern side of both insulae on the geophysics was a linear inset from the Wall, possibly suggesting a roadway or cleared area adjacent to it; or it could be an old field-boundary along the edge of the walls further out than the current metal fence.

Insula XXIIa

Insula XXIIa did not extend completely up to the Town Wall on the west side; the Antiquaries identified an east–west road on its northern boundary cutting off a tiny triangle of ground, but they could not find the eastern limiting north–south road. No boundary walls were observed. Within the 'open area' they reported finding hardly any pits at all. The buildings discovered were largely confined to the southern area. Traces of additional structures were clearly missed by the Antiquaries, though in the central to south-east corner of the site 'doubtful traces' of a building were apparently uncovered but not planned. Geophysics have enlarged House XXIIa.2, and suggested the traces of perhaps three additional buildings, though none in complete plan, and also none coinciding with the Antiquaries' 'doubtful traces'.

House XXIIa.1, towards the south-west of the insula, is another possibly early house that may have been truncated by the roadway to the west. In origin it is a roughly east–west series of rooms with a portico to the south, but much adapted. There was a large heated apsidal room at one end. The presence beneath a thick-walled room projecting south of the portico of a fragment of coarse red mosaic is indicative of a yet earlier building. See also Boon (1974, possible cattle byre 259, flour milling 367).

House XXIIa.2 lay a little north of House XXIIa.1, and was differently aligned, again almost but not quite perpendicular to the street (Boon 1974, 47). It was a simple four-roomed row-house, though the geophysics suggest there was at least one additional room to the east.

House XXIIa.3 was situated on the eastern side of the insula and partly above the Inner Earthwork. The plan is not particularly coherent with a corridor-like passageway, only half of which is actually fronting rooms. All three recognised rooms apparently had hypocausts, but the floors had all been ploughed away; this could be a bath suite. It is likely that the building continued all the way to the roadway, and the geophysical response is consistent with the projected area having the heightened magnetic responses common in building interiors, though specific walls were not observable. The three pits identified XXIIa.D, E and F were all in locations that lay directly above the inner enclosure ditch, and may have cut into its fill.

House XXIIa.4 was a small chamber in the north-east corner of the insula which contained a hypocaust, with a wall running off as if there was more to the plan than was discovered.

Insula XXIIb

Insula XXIIb is divided from Insula XXIIa by a north–south road which shows clearly on the geophysics leaving a small triangular space once the Town Wall was built.

House XXIIb.5 was a three-roomed row with a portico on the south-south-west side. A small apsidal extension had been added to one end. An additional wall is seen trailing off on the Antiquaries' plan, but there is no help interpreting this from the Fluxgate Gradiometry since

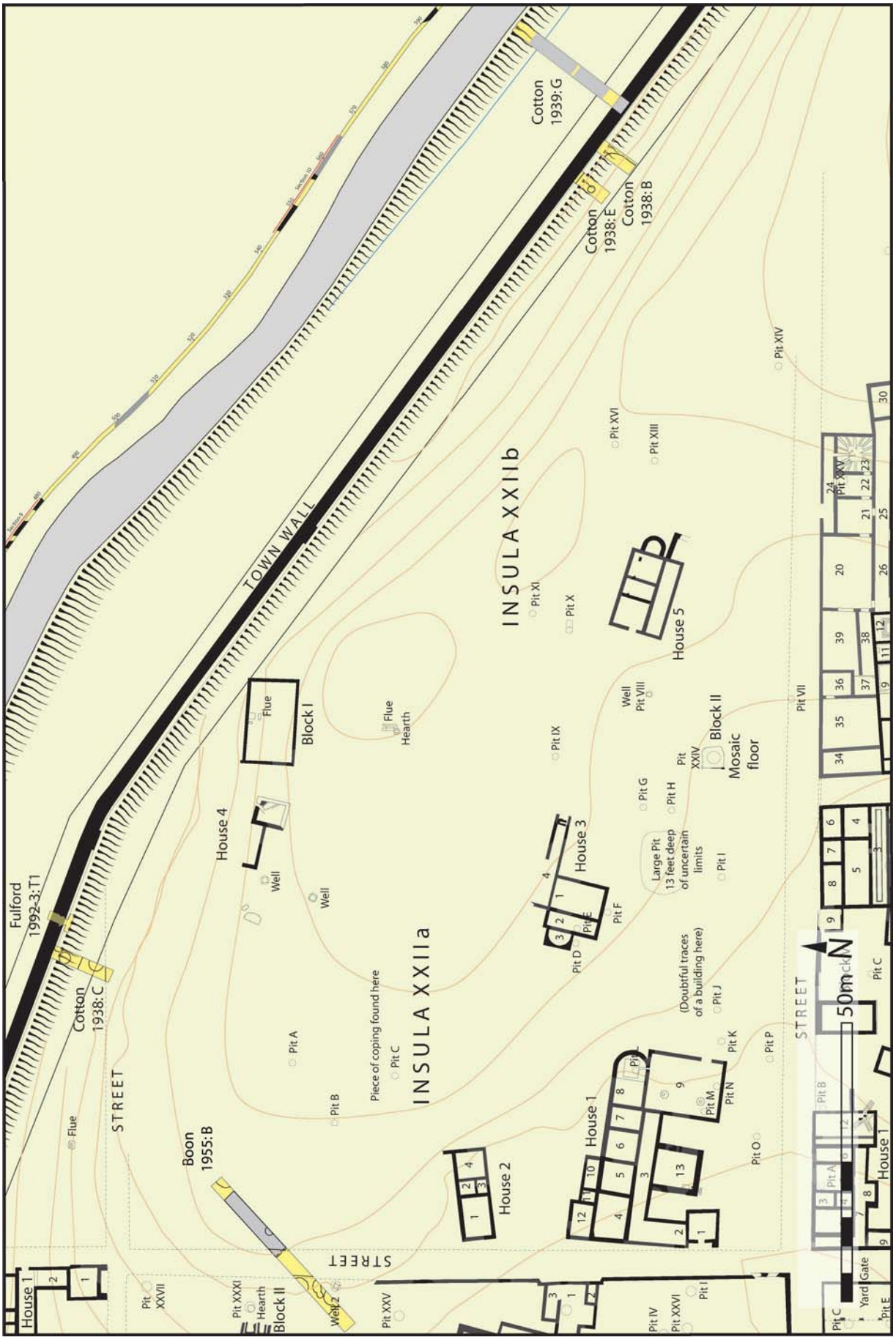

FIG. 5.9. Interior 3 – Antiquaries' plans and modern topography.

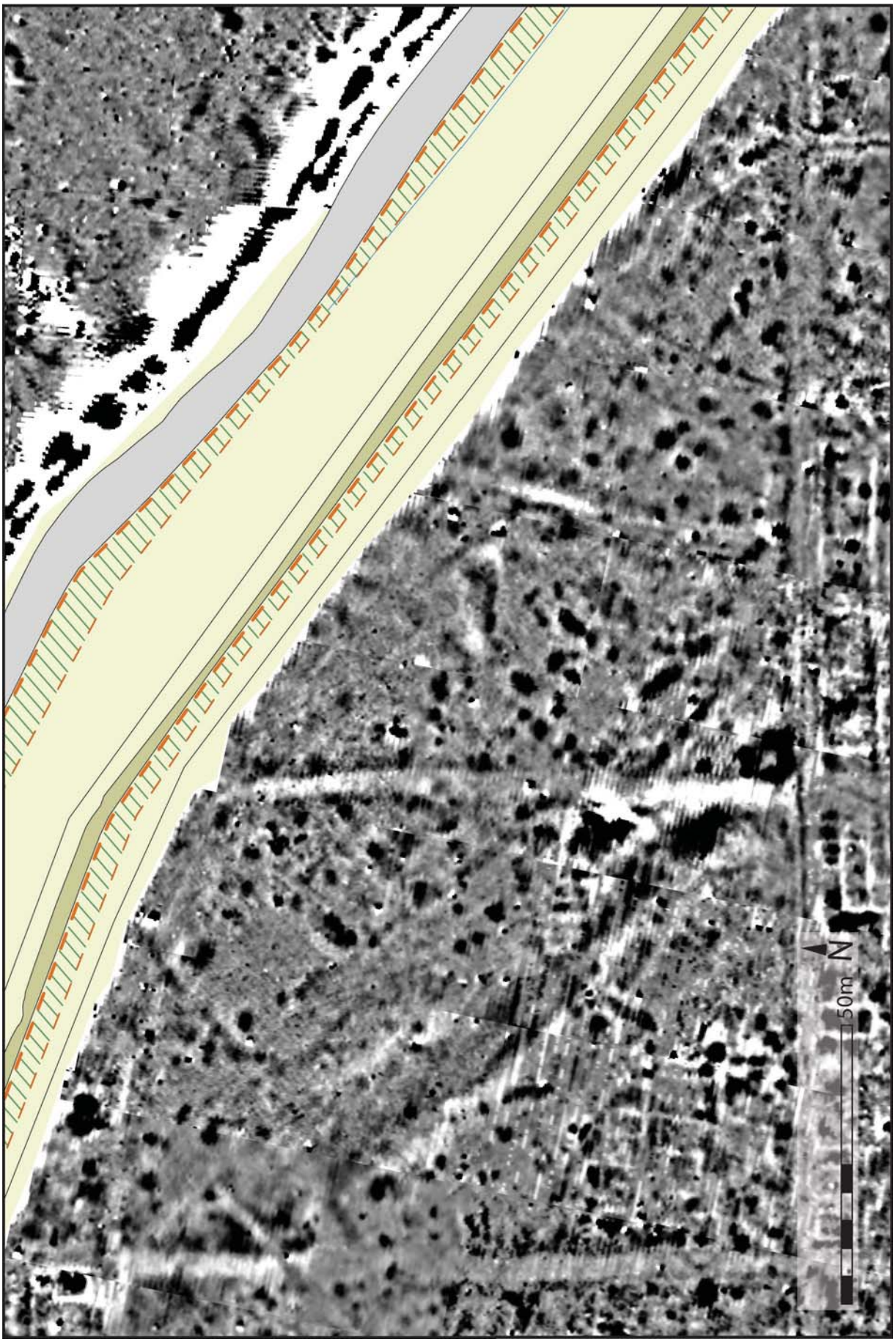

FIG. 5.10. Interior 3 – fluxgate gradiometry image (± 7 nT).

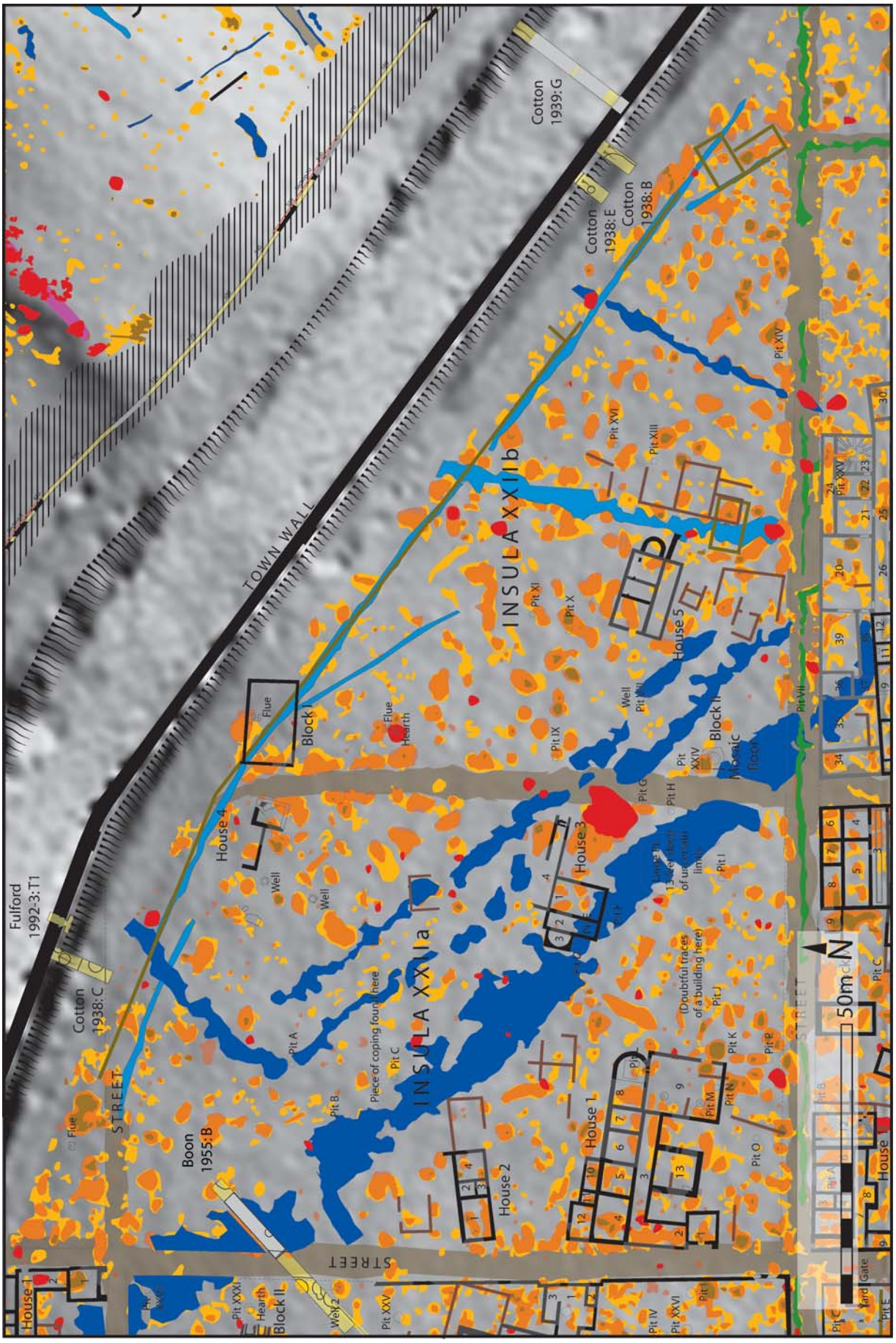

FIG. 5.11. Interior 3 – interpretative plan.

this particular building shows up especially poorly. Nonetheless, to the east of it there is a series of fairly large sub-rectangular features which could be the fills of the rooms of a fairly large unidentified house. It is aligned with a long negative ditch-like linear anomaly which correlates with little else.

Block XXIIb.I stood over the road from House XXIIa.4. It was a simple single-roomed hall-type strip-building, but had a flue in the middle of the long northern side (Perring 2002, 57).

Block XXIIb.II was in the south-west corner, identified only by the remains of an isolated mosaic floor in a building otherwise not revealed. It was also on the edge of the filled-in Inner Earthwork ditch, so the building is likely to have suffered from significant subsidence. Beneath the floor was a pit within which were found six complete pots (Boon 1974, 160).

The Inner Earthwork ditch crosses both these insulae, and was dug into, without recognising what it was, in the south-east quarter of Insula XXIIa, where the Antiquaries described it as a large cesspit 3.9 m deep of uncertain limits. Their excavation of it spread over more than 6.1 m square. The description of its contents was: 'It contained a good many fragments of pottery, but not in sufficient number to enable whole vessels to be recognised from them, and at the bottom was a stratum of animal bones, below which was a malodorous layer of decayed animal and vegetable matter.' This matter was sent off for Mr Clement Reid to analyse and report on in a later paper, but unfortunately not in a way separating out details from this deposit.

Peripheral enclosures appeared in the geophysics parallel and perpendicular to the Inner Earthwork. The traces of them are faint, but their orientation in relation to the Inner Earthwork suggests they respect this, and therefore predate the Claudio-Neronian filling in of the ditch.

NOTABLE FINDS

Architectural fragments included a piece of coping, possibly from the Town Wall (from Insula XXIIa); a fragment of fluted pilaster in Purbeck marble, a fragment of white marble, and a fragment of an arch of a window ornamented with foliage and scroll work (Insula XXIIb).

Various animal bones mentioned included a horse jaw bone, a cat skull, a red deer skull devoid of its antlers, and the leg bones of cocks with large developed spurs.

Objects in glass included a Gnostic Gem (Abraxas with a shield and whip) and millefiori glass. Metalwork included an enamelled disc brooch, and another of 'peculiar form', a large pewter bucket (Pit XXIIb.VIII, actually a well) and lead weights. In addition, a bowl of Kimmeridge shale was found.

INTERIOR 4: INSULAE X AND XI (FIGS 5.12–14)

HISTORY OF INTERVENTIONS

c. 1740s	John Stair southern edge of both insulae (Taylor 1759).
1894	Excavation of Insula X (Fox 1895, 450–4).
1894	Excavation of Insula XI (Fox 1895, 454–7).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insulae X and XI: lectures (Fox 1894; Fox *et al.* 1895a); a note (Fox 1899b, 84).

DESCRIPTION

These insulae are primarily characterised by the small end-on houses along the main east–west road, with a large front room for a workshop or sales space, and smaller residential rooms towards the back. These are the familiar kind of strip-houses found in Roman London. The plans of many of these have been enhanced by the geophysics with the completion of the outer walls of Blocks X.III, X.IV and XI.I.

Behind these there are relatively few structures which led the Antiquaries to wonder if the

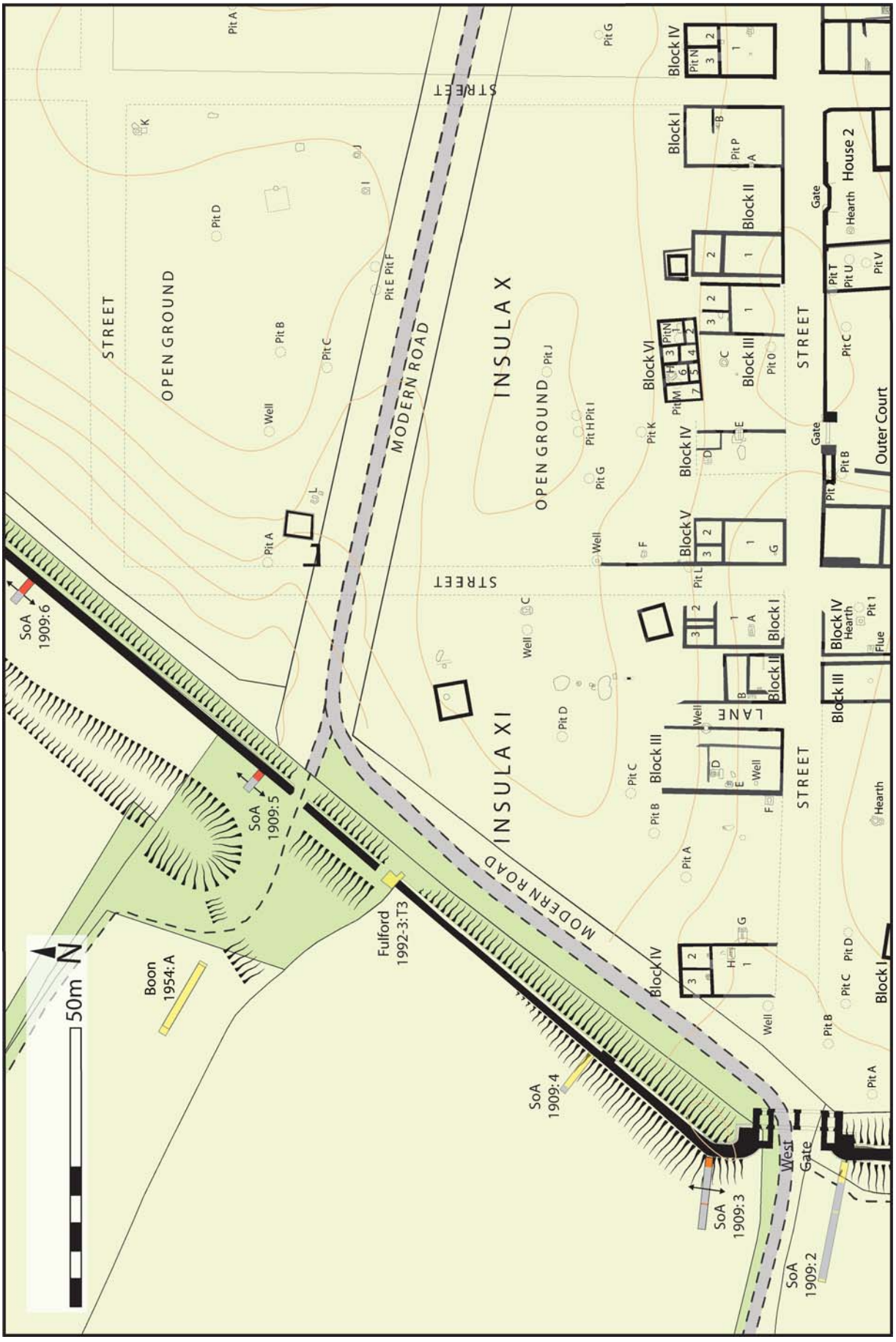

FIG. 5.12. Interior 4 – Antiquaries' plans and modern topography.

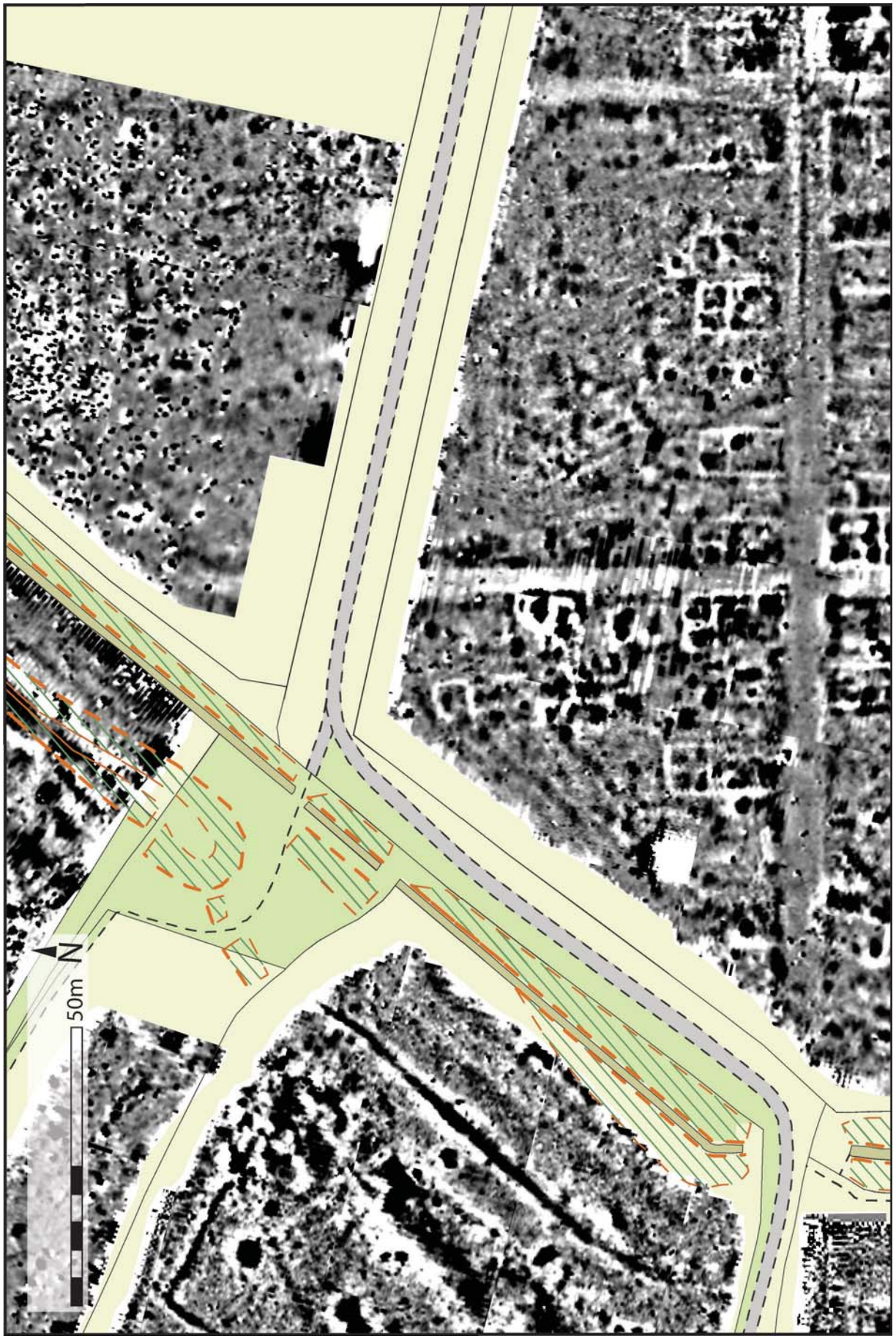

FIG. 5.13. Interior 4 – fluxgate gradiometry image (± 7 nT).

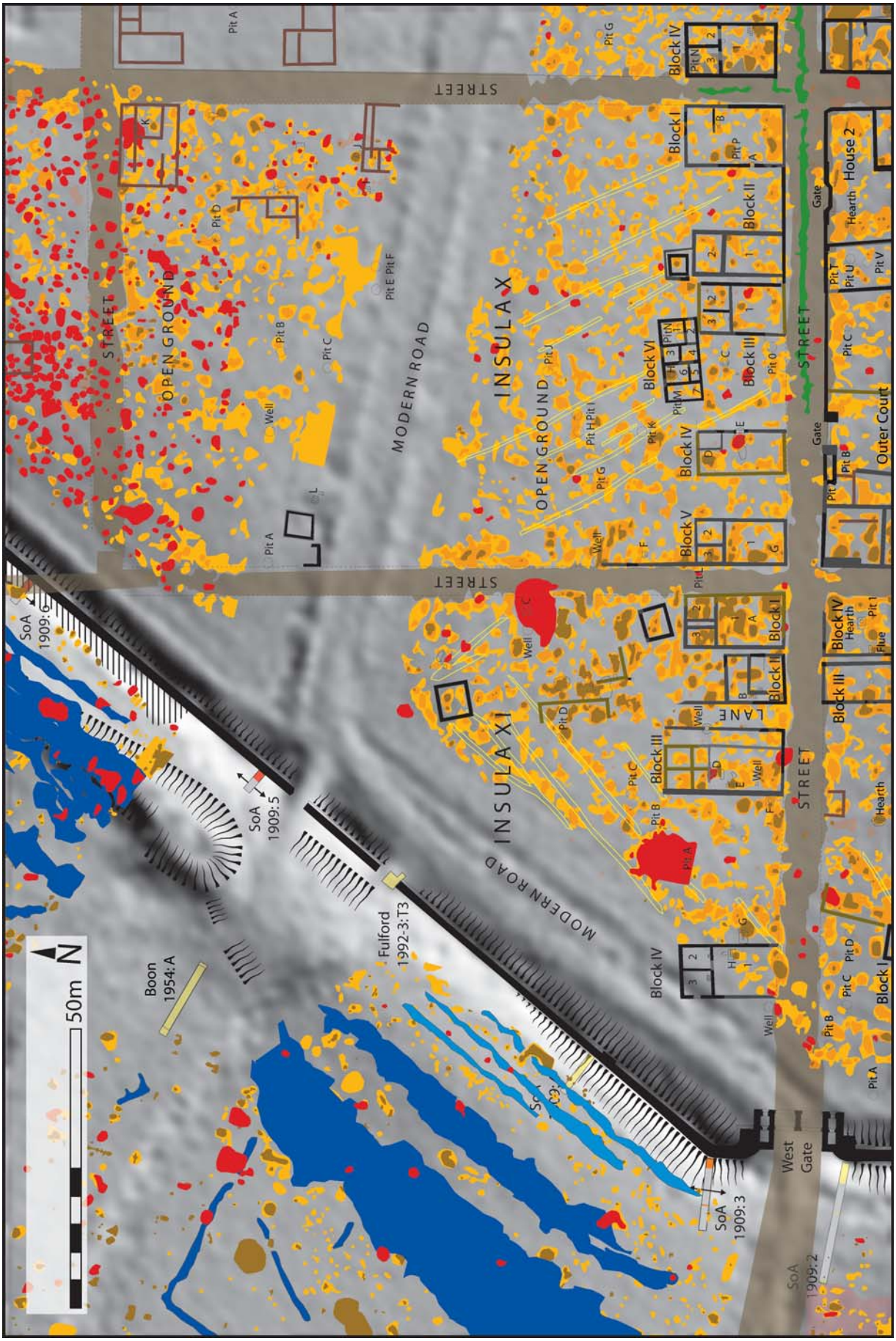

FIG. 5.14. Interior 4 – interpretative plan.

area was used for some industrial activity, perhaps dyeing cloth (discussed pp. 421–3). Two pieces of metallic debris from a hearth from the 1894 excavations (probably from Block XI.I) rather suggested it related to silver refining (Gowland 1900); unfortunately it was very unclear specifically where Gowland's sample had come from, and it *could* have been from Insula IX.

Insula X

Insula X contained a series of buildings along the main east–west road on the south, but otherwise the Antiquaries found it largely open, with a number of circular furnaces (X.I, J and K) on the eastern side and a couple of roughly square buildings on the western side, alongside another circular furnace (X.L). The geophysical results from Insula X broadly correlate with the Antiquaries' excavations, with an apparent scarcity of buildings in the northern half of the insula. The geophysical data from this area have, however, unfortunately been affected by the existence of the modern campsite used by the archaeologists while excavating Insula IX.

Blocks X.I–V were all similar buildings along the main east–west street, simple rectangular buildings with a large room on the street and evidence of smaller rooms or partitions at the back.

Within Block X.III was a single long flue in close association with a round furnace or oven bottom (Boon 1974).

Within Block X.V was found a 0.44 m diameter quern apparently *in situ* in the front room with the charred remains of part of an original frame (Boon 1974, 238). It is also likely that this block was first excavated by Stair in the 1740s as it appears on Taylor's map of Hampshire (FIG. 3.3).

To the rear of Block X.II was a square building that has been interpreted as a tower granary (Boon 1974, 189, 256).

Block X.VI was situated a little back from the southern street frontage, and may not have been contemporary with Block X.III or the others. It was a simple rectangular building divided up into seven rooms, but on a slight angle to the grid. Fragments of quern were found, as was a circular furnace.

Insula XI

Insula XI was truncated into a triangular area by the town defences (see Exterior 13). The main buildings consisted of a series of blocks along the main east–west road, between two of which ran a north–south lane running up to a small square block, and past a couple of burnt patches. The Antiquaries reported that there were few finds from the pits in the area.

Blocks XI.I–IV ran from the south-east to south-west corner of the insula along the main east–west road; they were similar in form to those in Insula X, and included a number of long flues and circular furnaces and also from Block XI.I evidence potentially relating to silver-working (Boon 1974). The enhanced magnetic responses in this area lend this interpretation support. The Antiquaries suggested they found traces of an earlier building underlying Block XI.III; however, the geophysics suggested additional walls which might simply have been subdivisions within the same building.

Central insula: the geophysics revealed additional buildings situated within the middle of the insula. In this area there were both zones of enhanced magnetism (within the vicinity of Pit XI.D) and traces of walls.

NOTABLE FINDS

Coins: a hoard came from near Pit XI.D containing 253 denarii from Marc Antony to Septimius Severus (Fox 1895, 455, 473–94); an arm purse was found in a pit in Insula XI (Fox 1895, 469), though no mention is made of coins from it; and Fox noted that a high proportion of that season's coins were of the Early Empire, which is unusual, suggestive of a bronze dispersed hoard.

Metalwork from among the rubbish between buildings around Block XI.II included a sword blade. A Late Roman ring came from the inner face of the Town Wall near the West Gate (Fox 1895, 468); an intaglio from another ring was also found that season. Other finds from the season (which could also come from Insula IX) included a bronze hinge of pierced work with symmetrical

scroll-work, a small piece of enamelled work, a small bronze bell, 'sundry brooches, buckles, rings …, pins of various sizes and patterns, needles, ligulae …, keys, a perfect and a broken scale-pan, and two pieces of a bronze scale-beam with the divisions marked by silver studs. The handle of a pewter vase was also found, terminating in a well-modelled lion's head' (Fox 1895, 471).

INTERIOR 5: INSULAE I AND IX (FIGS 5.15–18)

HISTORY OF INTERVENTIONS

c. 1740s John Stair, southern edge of Insula IX (Taylor 1759).
1864–6 House I.1 excavated as 'Block II' (Joyce 1876b, 404–6; Joyce 1881a).
1890–1 Excavation of Insula I (Fox and St John Hope 1890; Fox 1892, 264–9).
1893 Excavation of Insula IX, ogham stone (Fox and St John Hope 1894).
1894 Completion of Insula IX (Fox 1895, 440–50).
1997–2014 Excavation of Insula IX (Fulford *et al.* 2006; Fulford and Clarke 2011a).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Block II: lectures (Joyce 1867b; a, 494–6; 1873, 16–20); a report (Hilton Price 1887); notes: (Fox 1899b, 81; Anon. 1866); discussions of visits (Anon. 1864b, 360; Roach Smith 1865; 1866).
Insula I: a summary (St John Hope 1890b); lectures (Anon. 1891b; Fox and St John Hope 1891a; b; Fox 1893; Fox *et al.* 1895a); society visits: (Anon. 1891c; 1890–3b).
Insula IX (Antiquaries): lectures (Fox 1894; Fox *et al.* 1895a; b); notes (Fox 1899b, 83–4; Le Schonix 1894).
Insula IX (Town Life Project):

Major articles (Fulford 2012b).
Interim reports in 'Archaeology in Hampshire' (Fulford and Clarke 1998; 2000; 2001; 2002a; 2003; 2009a; 2010; Clarke and Fulford 1999b); CBA Wessex News (Clarke 2002a).
Interim report booklets for 1997–2013 seasons (Clarke and Fulford 1997; 1998; 1999a; 2000; 2002; Clarke 2002b; Clarke and Fulford 2003; 2004; Clarke *et al.* 2005; Fulford and Clarke 2009b; Fulford *et al.* 2011; 2012; 2013; 2014).
Reviews of final reports (Holbrook 2007; Burnham 2009; Wilson 2008; Cool 2008; Booth 2012).
Popular interims (Fulford and Clarke 1999; 2002b; 2011b).
Interim notes (Burnham *et al.* 1998, 426–7; 1999, 369; 2000, 426–7; 2001, 373–5; 2002, 348; 2003, 351–2; Chapman *et al.* 2010, 399–402; 2011, 389; 2012, 344–5; Selkirk and Selkirk 1997).
Thematic papers: votive deposits in pits (Fulford 2001, 201–2); pottery residue analysis (Marshall *et al.* 2008); geology of tesserae (Allen and Fulford 2004, 10–16; Wilkinson *et al.* 2008); soil geochemistry (Cook *et al.* 2003; 2005; 2010).

DESCRIPTION

Continuing along from Insulae XI and X, Insulae IX and I also had strip-buildings, end-on, along the main east–west road. However, the premises here, closer to the centre of town, were slightly more elaborate and larger. Behind these in Insula IX we have richer contextual information from the recent excavations which have revealed a sequence of early features and buildings at an angle giving way to later Roman houses aligned with the north–south road; while in Insula I we have two substantial major houses.

Insula I

Insula I was surrounded by a continuous wall, with a series of detached houses running off it. There were strip-buildings on the southern side, but the larger main buildings were House I.1 in the north-west corner and House I.2 in the north-east corner. Between them and the

fragmentary remains of the strip-buildings, cut through now by the modern droveway, there was a relatively open area which correlates with the geophysical data. Originally Joyce had imagined that in this expanse between the lavish House I.1 and the Forum stood 'a temple, or, if not a temple, certainly an altar and a precinct to the Hercules of the Segontiaci' (Joyce 1881a, 331). Fox rejected this idea after trenching the whole area and finding little. However, he noted that the dedicatory inscription (*RIB* 67) had indeed been found some time before 1744 from the north side of the Forum, though whether from Insula I or not was unclear; Taylor's plan suggested not (FIG. 3.3; Taylor 1759).

House I.1, in the north-west corner, had been excavated as 'Block II' by Joyce who had been explicitly looking for the northern corner of this insula by the side of the 'great north road' (Joyce 1881a, 330); and it was here too that the Antiquaries decided to commence their excavations, expanding out from the house to trench the entire insula. House I.1 had three ranges linked by a portico. It had developed out of an earlier building with a northern range on a slightly different alignment. Two mosaics were identified, 321.1 and 321.2, the former stylistically second century (Neal and Cosh 2009, 192–3). A southern room contained a small hoard of 42 bronze coins, largely Carausian in date (Joyce 1881a, 340).

The earliest evidence came from the south-west corner of one of the rooms by the road where the floor had sunk into a soft hole which went down at least 1.8 m. Its contents included 'rotten debris of a building, mortar, flints, wall-plaster, still bearing fresh colours, some fragments of iron, broken bits of ornaments of Kimmeridge clay, and among them a curious knife, and, lastly a coin struck in honour of the then deceased Antonia, the celebrated sister of Marc Antony, the mother of the noble Germanicus' (Joyce 1881a, 340). The evidence suggests the extensive early activity seen in the neighbouring Insula IX spread across into this insula as well.

It is noticeable that early walls, elaborated from Joyce's plans by Fox's excavations, are on a slightly different alignment, comparable with that of the Forum and the east–west road running east from the Forum (FIG. 5.28), again suggestive of an early date. The northern east–west wing then was re-built on alignment with the later Roman streets to create Joyce's second-phase house which he dated to around the time of Commodus on the basis of a single coin-find (Joyce 1881a, 340). The house's size and longevity gave Joyce scope to speculate that it may have been the official residence of one of the *duumviri* of Silchester (Joyce 1881a, 340).

More recent literature about the house has also discussed: multiple aspects (Boon 1974, Joyce 25, layout 95, 193, columns 200, barns 256, earlier building 59, 306, adjustment to grid 307, fireplaces 343, mosaics 215, 346); column bases (Fox and St John Hope 1890, 734; Blagg 2002, 114; Joyce 1881a, 339); column capitals (Fox and St John Hope 1890, 734; Blagg 2002, 127; Joyce 1881a, pl. XV.2); associations with Bacchus in the imagery of Mosaic 321.1 (Mo-39, in Hutchinson 1986, 431); and buildings and measurement units (Walthew 1987, 203, 205, fig. 1a).

House I.2, in the north-east corner of the insula, was essentially an L-shaped building with a portico on either side. In origin it may have started as the north–south range with a portico on the east, followed by the addition of a second east–west range to link it to the street and create a courtyard. A heated block was added to the rear of the north–south range. Also, at its southern end, a deep horseshoe apsidal room was added, which has been discussed by Perring (2002, 165) in the context of the development and elaboration of reception rooms in Romano-British housing. The geophysics and aerial photography have added a number of walls to the building plan on the southern side creating a courtyard, and some additional walls to the north as well.

Many of the walls were covered in plaster, and many painted fragments came from the house, mainly from simple panel schemes, but some showing golden-coloured draperies and imitations of yellow and grey marbles. The flooring included mosaics and some *opus signinum*. Five mosaics were identified, one of which (321.3 in the inner portico) may have been the layout for a game (Mosaics 321.3–7, Neal and Cosh 2009, 194–6; Rainey 1973, 136; Boon 1974, 217).

The square building just to the south was considered to be for water storage, but the fact that it appeared to be unlined militates against this. Perring suggested it was a tower granary (Perring 2002, 183).

A possible additional building is suggested by the geophysics just to the south of this at an angle to the road; however it is very faint, which could mean it is either deep down or illusory.

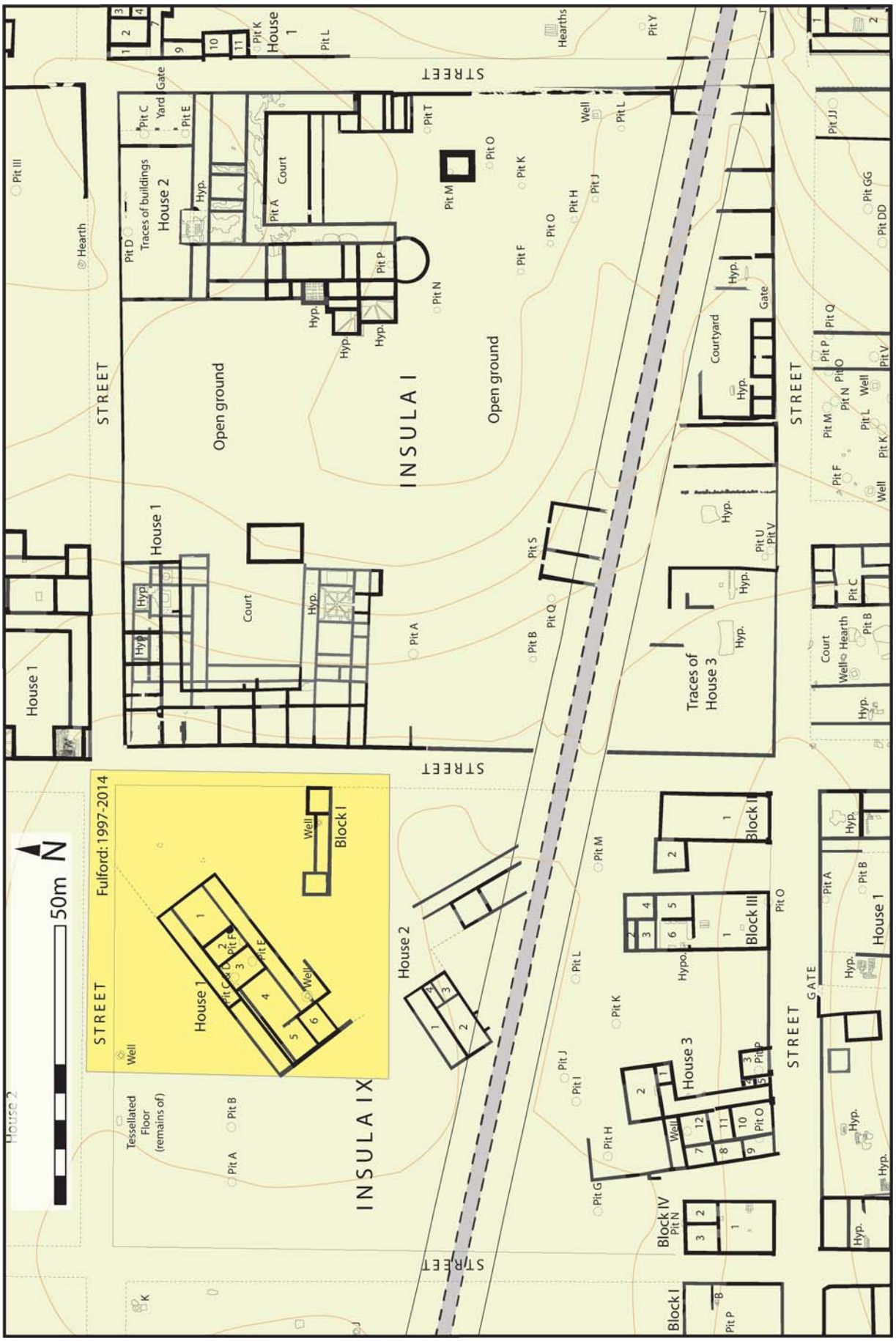

FIG. 5.15. Interior 5 – Antiquaries' plans and modern topography.

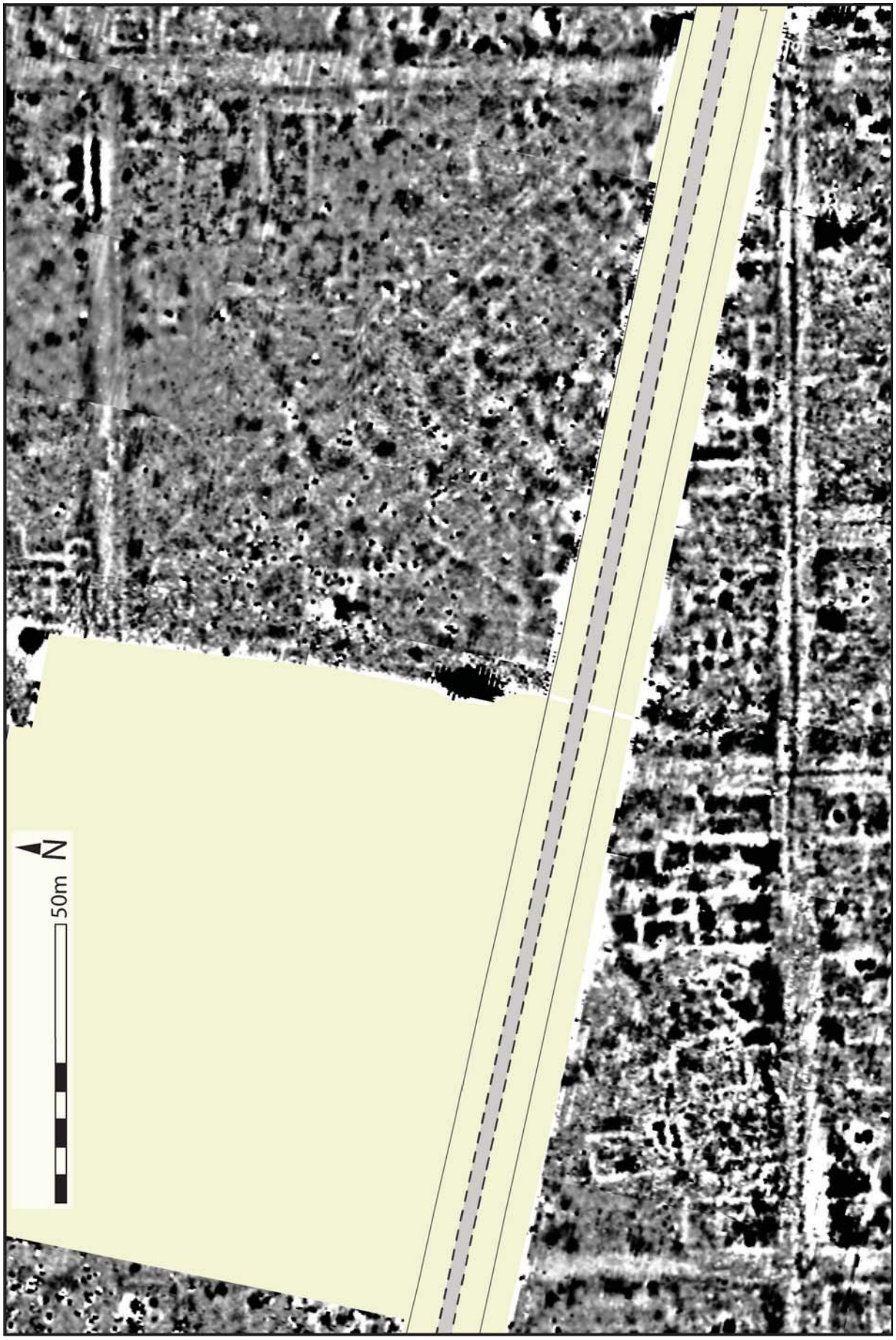

FIG. 5.16. Interior 5 – fluxgate gradiometry image (± 7 nT).

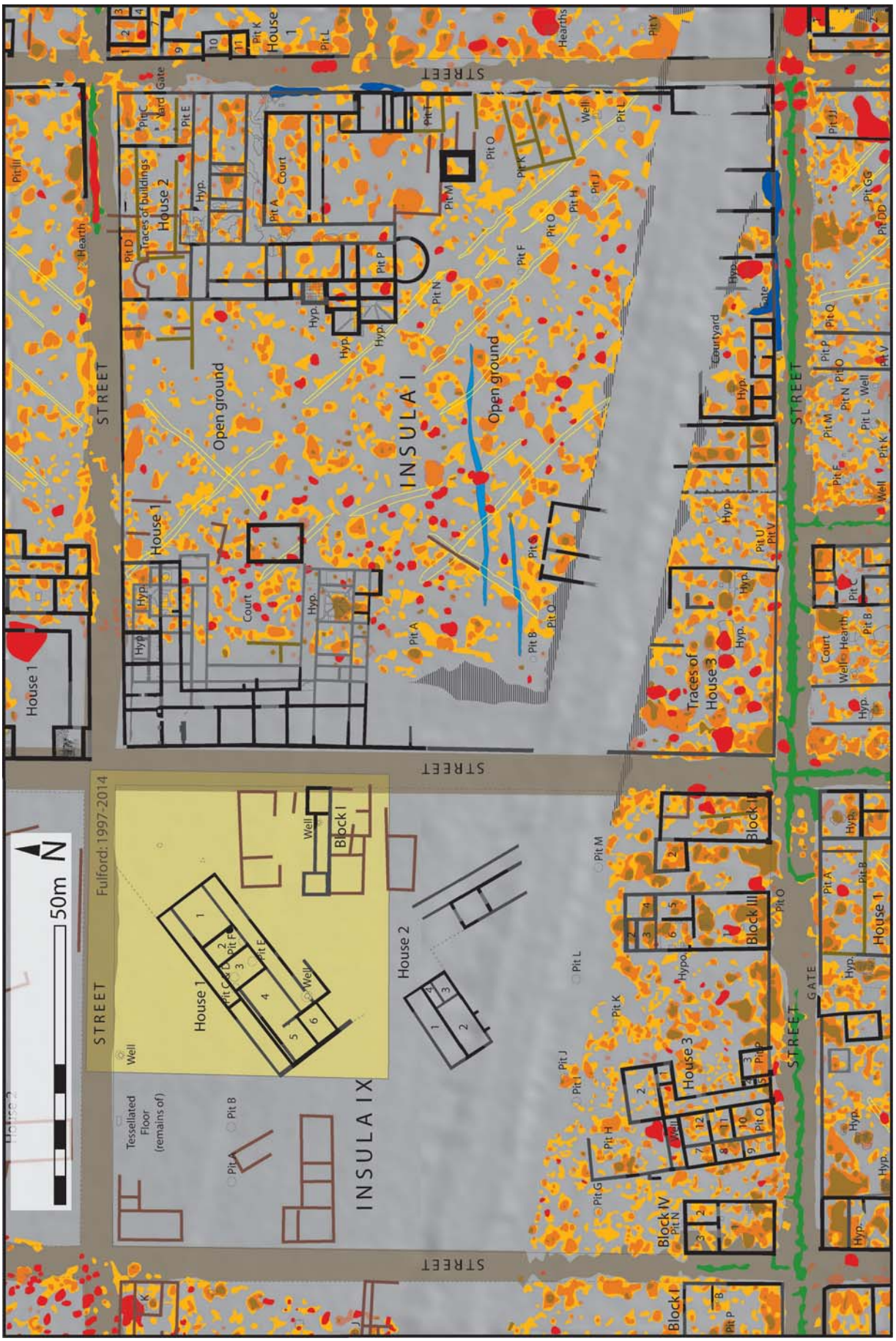

FIG. 5.17. Interior 5 – interpretative plan.

Of the notable finds, Pit I.C, just north of the building, contained many pieces of painted wall-plaster and a small fragment of column 0.19 m diameter.

It is likely that there were earlier buildings in this location. In more than four places former floor levels were found around 0.45–0.55 m below the tessellated pavements of the north corridor, though there was no sign of this further south within a trench cut into the semi-circular room. Two pits, both sealed by mosaics, contained potentially early material: Pit I.R contained two fibulae, other bronze objects, glass, pseudo-Arretine plain and figured ware and several dog skulls; whereas Pit I.P contained near the bottom two pots (one flint-tempered), painted wall-plaster and a copper coin of Nero.

Subsequent discussion of these buildings includes Boon (1974, layout 95, 190, 192, 194, 260, isolated square building 257, barn 259, adaptation to grid 307, mosaics 345, granary 358).

House I.3 lay in the south-west corner of the insula. 'Here there were confused but very scanty indications of buildings lining the street down to the edge of the modern road, and many objects of various kinds were turned up' (Fox and St John Hope 1890, 734). Three hypocausts could be found in and around House I.3, but no clear sense made of the plan.

Insula I: other smaller buildings lay along the rest of the frontage on the main east–west road through the town. One with five rooms with a shared yard at the back Boon considered was likely to be a series of small rented out shops (Boon 1974, 54, 188). Found amongst these buildings were fragments of one of the carved foliage capitals from the demolition of the Forum to the south, as was some fine marble (possibly Campan Vert from the Pyrenees). The Antiquaries noted that one of the walls was made of substantial blocks of ironstone, and it is worth noting that this shows up less well than the more normal flint walls in the Fluxgate Gradiometry results.

An Ironwork Hoard was found in Pit I.N. A brief report was provided by Fox and St John Hope, and then elaborated upon by Evans. Apart from containing a late fourth-century pot, it comprised an iron sword, 2 iron bars, axe, hammers, gouges, plough coulter x 2, anvil, tongs, files, rasp, hippo-sandal, lamp, gridiron, carpenter's plane (Evans 1894; Fox and St John Hope 1890, 742; May 1916b, 129, pl. LVI, 104; Manning 1972, 236; Fulford 2001, 206; Hingley 2006, 250). Specific objects which have generated additional discussion include the anvils (Rees 1979, 731–3) and an object Evans described as being a carriage axle. However, Manning re-interpreted the latter as the pivot of a large geared mill, transmitting power from a toothed wheel through the central hole in the stationary lower millstone, to the upper stone. Manning noted that there was no evidence for water supply sufficient to power it in the immediate vicinity, so thought animal power more likely than the alternative that it was just there as scrap (Manning 1964).

Insula IX

Insula IX was first delimited by Stair as he traced the roads. Two walls, presumably from his excavations, show on Taylor's map of 1759 (FIG. 3.3). So the insula has records of both the earliest excavations known and the most recent, since it has been the site of the long-running excavation by Fulford and Clarke. The extensive literature derived from that project is cited above, and much of the early material is still being worked on, so only a brief summary will be provided here after reviewing the other areas untouched by the 'Town Life' project. The ongoing excavation, spoil mounds and other obstructions did, however, mean that geophysics could not take place here. This means the locational accuracy of the Victorian plans could not be modified in the same way by adjusting them to the geophysical plot, so this has been done using the aerial photographic plots and aligning the road-lines, which suggests the Victorians positioned a few buildings too far to the north by a few metres.

South of the modern droveway lies a series of strip-houses perpendicular to the east–west road (Blocks IX.II–IV) as well as one larger house (House IX.3).

House IX.3 was situated on the main east–west road, though constructed at a slight angle to it. The Antiquaries thought it partly encroached on the street by about 1 m, which might be the case if the street genuinely had a perfectly straight edge. In origin it was a double-row block building which had an east-facing corridor added on to it with extensions at the north and south, though not quite pavilions (early single-corridor type, Berry 1951). Walthew envisaged it slightly

differently as a double-corridor building, where the rear corridor had been subdivided into smaller rooms as in the villas at Farningham and Ditchley (Walthew 1975, 199). The south-east extension was considered by the Antiquaries to be a self-contained shop and counter. It looks as if the southern end was adapted to align the building with the street-grid (Boon 1974, 47, 93). From Pit IX.P sealed beneath this room came a quern, and close by fragments of imported marble and metal-working residue possibly associated with silver-working (Boon 1974, 275–6; Gowland 1900); see also Perring (2002, 67).

Block IX.II lay in the south-east corner of the insula; it was a one-room rectangular structure with an extension on the back. Simple though the building was, without any obvious flooring, it had solid brick quoins on its street frontage. The geophysical survey has added a possible internal division to the main section, and it is also possible that the extension to the north-west was complemented by a similar one to the south-west where there is a large geophysical anomaly which could be caused by a particular room fill, though the wall-lines are uncertain. This would create a pair of pavilions.

Block IX.III lay along the southern street frontage of the insula. It was a rectangular house with a large room at the front and a suite of five behind including a hypocaust; it was interpreted as a shop. See also Boon (1974, 188–9, 193) and Perring (2002, 57).

Block IX.IV lay in the south-west corner of the insula, it was a hall-type strip building with two rooms to the rear (Perring 2002, 57).

North of the modern droveway our information has been transformed by Fulford and Clarke's excavations. Their interpretation will be summarised, but first existing knowledge before they began will be reviewed.

House IX.1 from the Antiquaries' plan would perhaps have been described as a double-corridor building, with possible extension to the south-west (early double-corridor house, Berry 1951, 190; Boon 1974; Mosaic 321.37, Neal and Cosh 2009, 207). One of the most famous finds from these excavations (and one which drew Fulford to dig here) was the ogham stone. This was found in 1893 in a well cut through House IX.1, possibly either 2.74 m down (Fox and St John Hope 1894, 233) or 1.5–1.8 m down (Fox 1895, 441) above a pewter jug. It was first reported in the *Antiquary* (St John Hope 1893b). Early discussions of it included one by Rhys (1893), a popular account (Anon. 1894), and a mention in a discussion about the end of the town by Haverfield (1904, 628). Contradicting earlier suggestions of an Oxfordshire (Boon 1959, 87) or north Berkshire origin (Boon 1974, 77), analysis by Fulford and Sellwood (1980) suggested the sandstone came from further west, potentially from the late Jurassic sandstones (Portland Beds) of Swindon. Boon responded in classic fashion (Boon 1981a). The distant westerly origin of such poor building stone led to some doubts as to its authenticity, though Fulford later laid these to rest (Fulford *et al.* 2000; Fulford 2000b). The stone is discussed within the context of a review of all ogham inscriptions from the British Isles in Crawford (1945, 207), while an analysis by Wright and Jackson (1968, 299) suggested the ogham dated to no earlier than *c.* A.D. 500. Various authors used the stone to argue for a post-Roman Celtic revival in lowland Britain (Haverfield 1923, 82–3; 1924, 283; Collingwood and Myres 1936, 316; Boon 1974, 77–8).

House IX.2 comprised two ranges discovered by the Antiquaries which they believed must be associated with each other. The eastern one had a corridor on its north-east-facing side, and the floors were of *opus signinum*; built into the foundation of the eastern range was inserted a much-worn capital and the base of a column from an earlier building (Fox 1895, 442, fig. 1; Blagg 2002, 127). Also from this area came a slab of Purbeck marble, 0.91 x 1.60 x 0.12 m, which Boon thought probably came from the Basilica (Boon 1974, 115).

Block IX.I lay halfway up the east side of the insula, perpendicular to the street. The section excavated by the Antiquaries was just the north-facing corridor and pavilions of a larger building (Boon 1974, 191); its real extent was revealed by Fulford and Clarke.

The summary above was extant knowledge but this has now moved on considerably. Two volumes dealing with the Mid- to Late Roman material have been published (Fulford *et al.* 2006; Fulford and Clarke 2011a), while the full reports on the earliest layers of the 'Town Life' project are awaited soon. Nonetheless, the overall sequence is now fairly clear (Table 5.2).

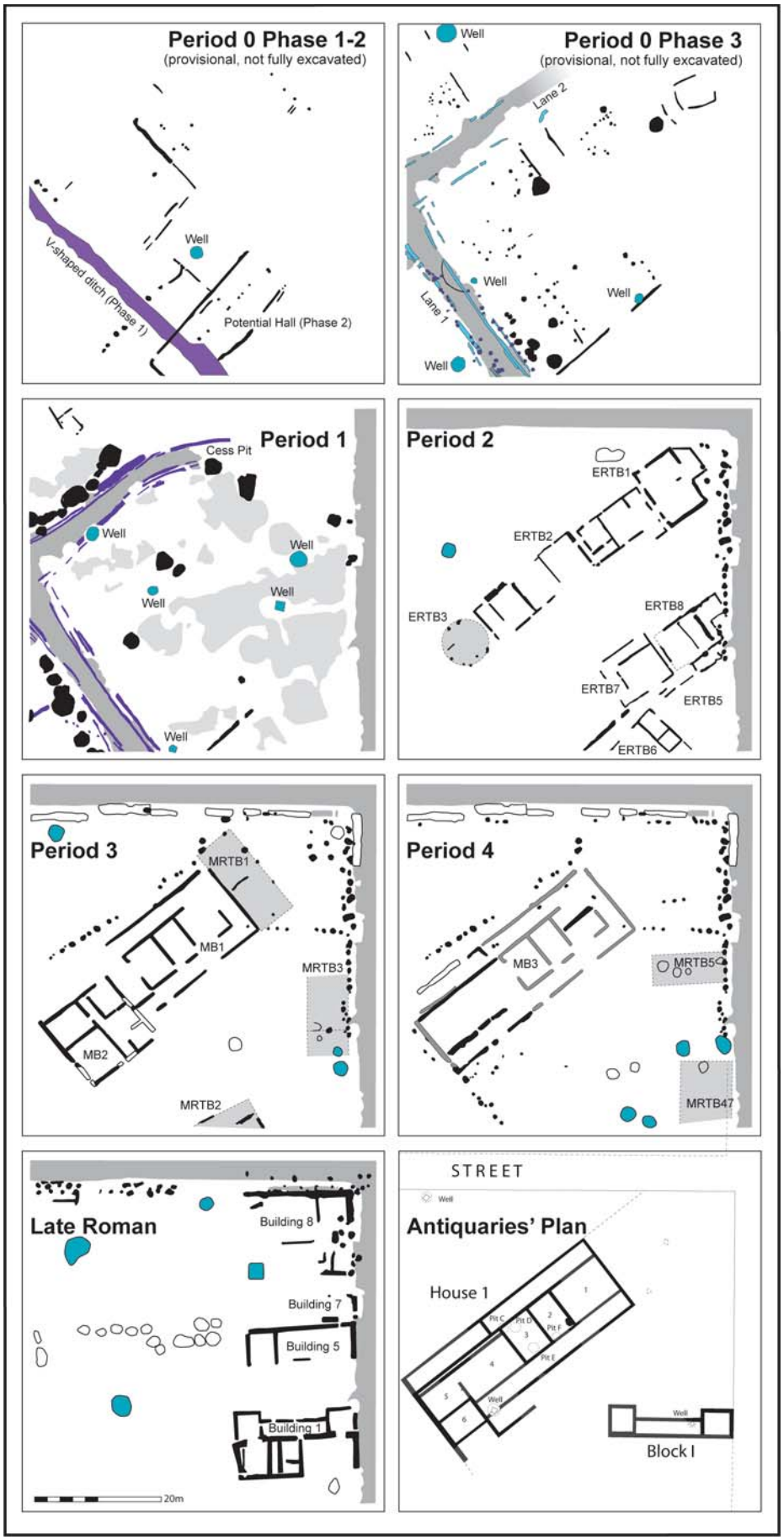

FIG. 5.18. Simplified phasing of Insula IX, Fulford and Clarke 1997–2014. Periods 0–2 are only provisional based on interim reports until final report is published.

TABLE 5.2. PHASING SUMMARY FOR INSULA IX EXCAVATIONS (EARLY PHASES PROVISIONAL)

Period 0	
Phase 1 (40 B.C.–25 B.C.)	V-shaped ditch traversing the excavated area, with lines of post-holes and slots perpendicular to it.
Phase 2 (25 B.C.–A.D. 10)	The V-shaped ditch was filled in and overlain by a possible large timber hall with structural features currently emerging.
Phase 3 (A.D. 10–40/50)	Construction of a lane which cut off one end of the short-lived hall, with a secondary lane running off it and a series of property boundaries and building elements perpendicular to them.
Period 1 (A.D. 40/45–70/80)	The NW–SE Iron Age lane continued in use but a new N–S road was constructed and the secondary NE–SW lane adjusted to join it. The surfaces of a number of clay-floored circular and rectangular buildings survive, and large pits dug alongside the lanes.
Period 2 (A.D. 70/80–125/150)	The Iron Age lanes faded into obscurity and a new E–W road was constructed to create the rectangular Insula block. Some of the preceding buildings had traces of burning. Within this period a new sequence of buildings began, retaining the old orientation. There were two main groups of buildings, a long range, with a roundhouse at one end in one phase (ERTB1–3), and a second parallel group (ERTB 5–8).
Period 3 (A.D. 125/150–200)	The Early Roman Timber buildings were replaced by new structures, partly in masonry, in similar positions (MRTB1, MB1, MB2; and a distance away MRTB2). Also, new smaller buildings were being constructed and aligned to the N–S road (MRTB3).
Period 4 (A.D. 200–250/300)	A single large masonry building (MB3) replaced the earlier group of structures, still diagonally aligned. But smaller structures continued to be built off the N–S road (MRTB4 and 5).
Late Roman (A.D. 250/300+)	In the second half of the third century there was a major re-planning with a clear new E–W boundary cutting across the diagonal MB3 (House IX.1).
Phase 1 (TPQ A.D. 287)	Make-up preceding the construction of Buildings 1 and 5.
Phase 2	Construction of Building 1 (*c.* A.D. 300), a residential workshop; Building 5, a single-storey workroom with residential room.
Phase 3	A portico and two pavilions added on to Building 1; Buildings 7 and 8 constructed.
Phase 4	Buildings 1 and 8 were possibly rebuilt in the late fourth century.
Phase 5	Possible continuity of Buildings 1 and 5 into fifth century.
Phase 6	The latest pits (fifth or sixth century?).

NOTABLE FINDS FROM INSULA I

Two infant burials were found in Insula I — one in a pit, another in a small urn within a pit (Fox and St John Hope 1890, 743) — and an adult skull was found on the south side of Insula I (Fox and St John Hope 1890, 744). Oysters were found all over the insula; bone included red deer, roebuck and perhaps fallow deer (identified by Dr Woodward) (Fox and St John Hope 1890, 741). Two coin hoards were recovered: Joyce found one in House I.1 in the room to the west of the *triclinium*, a hoard of 40 radiates down to Carausius (Joyce 1881a, 340–1); while a small hoard of 18 FEL TEMP REP *aes* was found in an alleyway on the southern side of Insula I (Fox 1892, 269). A bronze roundel (0.07 m diameter) with an eagle in the middle came from Pit I.V; the eagle holds a thunderbolt in its claws; beneath is a globe. Around an inscription reads OPTIME [MAXI]ME CON(*serva*) (cf. Bishop and Coulston 2006, 162). A roundel of similar design came from *Bremenium* north of Hadrian's Wall (Fox 1892, 268). A bronze goat figurine also came from the south of Insula I, from the alley between the south-central courtyard

building and the long hall to its west. A tile had the imprint of a hobnail boot on it, and another was inscribed with the word '*puellam*' ('girl', 'maiden' or 'sweetheart') (Joyce 1881a, 340). Also from the insula was an iron knife 'of curious construction, with ring attached, which has been considered to be the knife of the *haruspex*' (Joyce 1881a, 342). From the duct of the southern hypocaust of House I.1 came: a bronze ring with a key; a stylus; a needle; some pins with the heads cleanly cut into ornamental facets; some fibulae 'with springs formed by coils of wire tightly twisted, and with a shield to protect the point' (Joyce 1881a, 342).

NOTABLE FINDS FROM INSULA IX

See Britannia Monographs on the Town Life Project.

INTERIOR 6: INSULAE XXI AND XXVII (FIGS 5.19–21)

HISTORY OF INTERVENTIONS

1864 House XXI.1 excavated as 'Block I' (Joyce 1876b, 404–6).
1899 Excavation of Insula XXI (St John Hope and Fox 1900, 87–98).
1901 Excavation of Insula XXVII (St John Hope 1902, 18–29).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

'Block 1': lectures (Joyce 1873; 1867b); a discussion (Hilton Price 1887).
Insula XXI: finds shown at Burlington House (Anon. 1900); a lecture (St John Hope and Fox 1901).
Insula XXVII: description of the three houses (Anon. 1902a); short report (Anon. 1902b); description in a local journal (Ditchfield 1902); a lecture (St John Hope 1903b).

DESCRIPTION

The Inner Earthwork cut across this area, and the ditch shows up reasonably clearly in the geophysics. Alongside this a number of other linear alignments show as well which may represent earlier features.

Insula XXI

Insula XXI was notable to the Antiquaries because of the large number of pits within the centre of the insula, and the density of discrete geophysical features does appear to be higher here than in many. Within some were found groups of complete pots; this aspect of votive deposition in some of the pits and wells is discussed by Fulford (2001, 203–4).

House XXI.1, in the north-west corner of the insula, was an east–west block with a portico to the south having an additional room added to the east and a wing to the south-west. A space projecting from the portico had a mosaic (Mosaic 321.64, Neal and Cosh 2009, 222–3). Joyce commented upon the preponderance of oyster shells in the north-westernmost room as well as just inside the courtyard. Oyster shells are not uncommon at Silchester, and, as this was Joyce's first season, it is difficult to know if these were really significant deposits like the massive one he was to discover under the Forum a few years later, or whether they just struck him as unusual at the time. An additional wall revealed itself in the geophysics which divides this house off from the area to the east where Block XXI.IV is, creating a separate yard for House XXI.1.

Neal and Cosh incorrectly state that this building had been partially examined by Coles in 1833 and Stair in 1744. This is based on a misreading of Joyce who had initially considered re-excavating Coles' villa which was to the south of the droveway and actually part of what we now call 'the *Mansio*' or a building close by (actually located in Insula VIII, Interior 16), but this proposal had been rejected by the Duke of Wellington who had preferred Joyce's third idea of

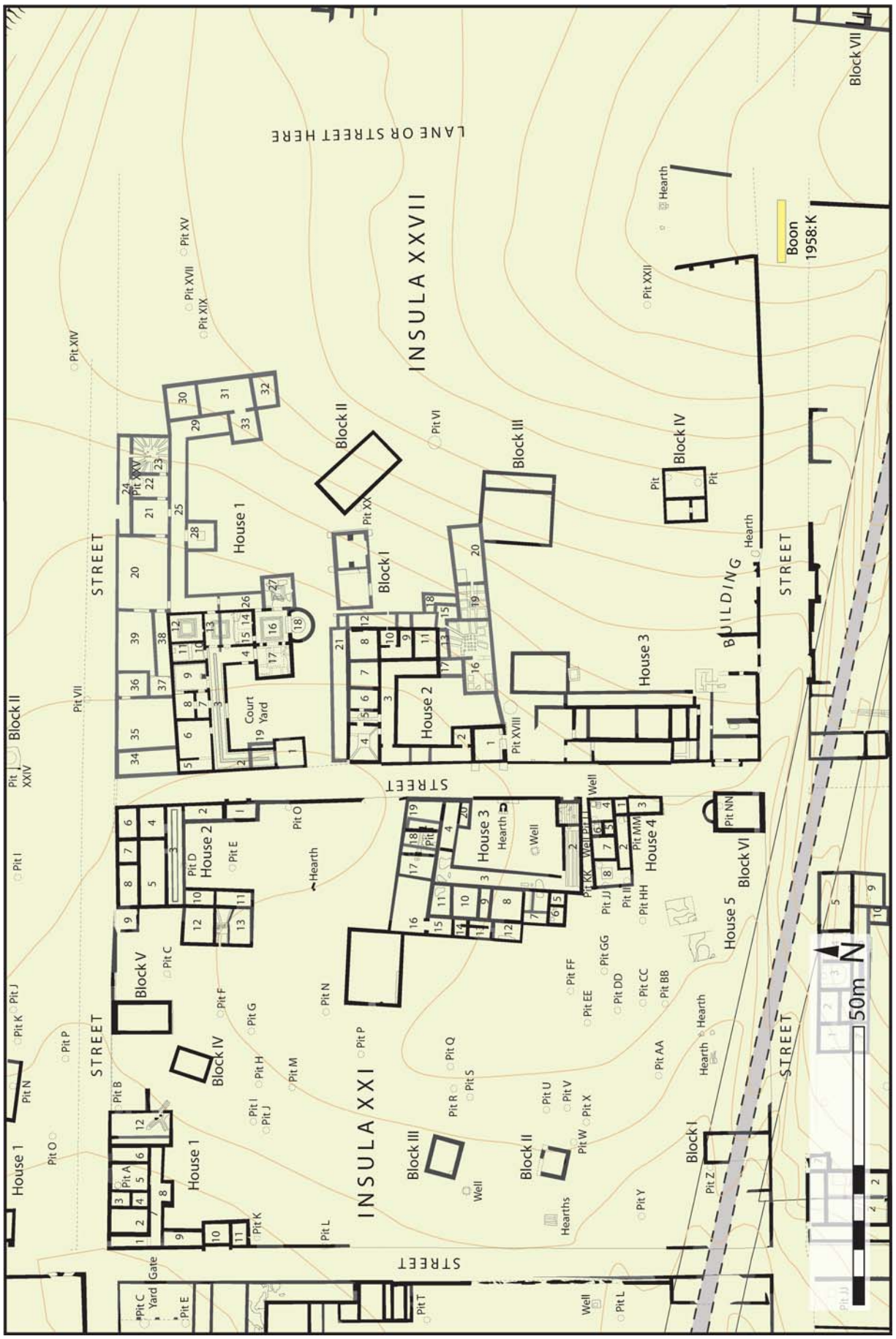

FIG. 5.19. Interior 6 – Antiquaries' plans and modern topography.

FIG. 5.20. Interior 6 – fluxgate gradiometry image (± 7 nT).

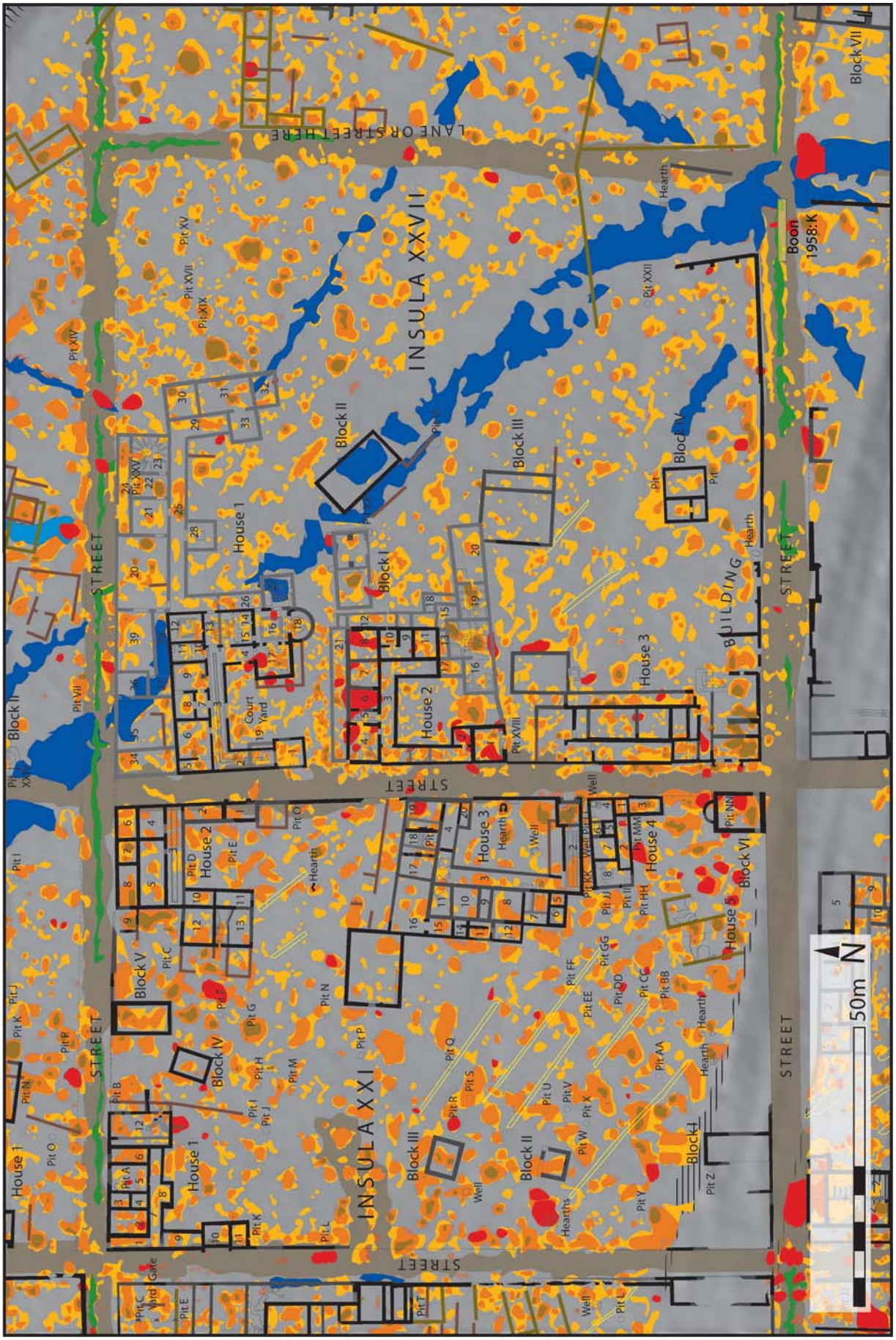

FIG. 5.21. Interior 6 – interpretative plan.

excavating in 'virgin ground to the archaeologist' where Mr Cooper, the farmer, had been hitting remains with his plough (Joyce 1876b, 403–4). See also Boon (1974, domestic shrine 161, layout 192, kitchen 195).

Block XXI.IV was situated a little bit to the south-east of House XXI.1; it was a single-cell building which was differently aligned to the house. It was imagined as the woodshed for the house's hypocaust.

Block XXI.V lay perpendicular to the east–west road on the northern side. While its floor had been lost, the interior gave an enhanced magnetic response. A wall along the street-front linked this building to House XXI.2.

House XXI.2, in the north-east of the insula, comprised two parallel series of rooms with a portico added to the south; two projecting wings had been added to the east and west to create a courtyard, and the geophysics revealed additional missed rooms attached to both. The portico included the remains of a mosaic (Mosaic 321.65, Neal and Cosh 2009, 223).

House XXI.3 lay on the central-eastern side of the insula, and comprised a number of curiously aligned ranges. It presumably began with the northerly east–west range which in the Antiquaries' plan looks like a single-corridor row-building, but geophysics revealed there was a northerly portico as well. At some point it looks like the eastern end of this house was truncated by the north–south road, with some earlier walls perpendicular to the length of the building being replaced by ones at a slight angle to adjust the gable end to suit the roadway and at the same time filling in the remains of a hypocaust. The building was at some point extended with the addition of a western range running north–south, and a southern range linking back to the street. The portico from the northern range was swung round to unify all three, and the passageway in the southern section provided the new entrance to the house. The western range itself has traces of a predecessor on the same alignment in walls found under Room 7 and the portico. The mosaics do not offer any dates which help elucidate the sequence (Mosaics 321.66–70, Neal and Cosh 2009, 223–4). Within the enclosed courtyard were a well and a particularly well-preserved hearth. See also Boon (1974, barn and hearth 259, 287).

House XXI.4, towards the south-east corner of the insula, was an east–west range of five rooms with a portico and pavilions to the south (later single-corridor type, Berry 1951). One room contains a second-century style mosaic (Mosaic 321.71, Neal and Cosh 2009, 224–5) (Boon 1974, 215). Neal and Cosh related the design to that of 321.1 (House I.1) and 321.48 (House XIV.2). The house was fractionally misaligned to the grid. It was observed that a lot of the mosaics were slumping into earlier pits, attesting to longevity of use of the location.

House XXI.5 was only represented in the excavations by the faint remains of two rectangular spreads of flooring at an angle to the grid. However, the geophysics give a little more form, adding a few walls to the structure, but by no means a complete plan.

Temple or *Schola*: Block XXI.VI lay at the south-east corner of Insula XXI. It was a plain rectangular building with a northerly apse and two doors in the southerly ends of the side walls. The Antiquaries thought it may have been a small church or guild meeting place. Boon played with three competing ideas: that it was the centre of a mystery cult and the head of Sarapis found in a back garden might have originated from here; that it was the centre of a guild, such as the *Collegium peregrinorum*; or even that it was the centre of the urban administration, the Forum-Basilica being the centre of governance of the *civitas* (Boon 1973; 1974, 58, 158, 167). Lewis favoured the former: 'it is possible that the side doors being more secret than a front entrance, indicate an esoteric cult' (Silchester 5, in Lewis 1966, 73–4).

Block XXI.I lay in the south-west corner, and was largely covered by the modern droveway. The remains might be a single-room house perpendicular to the street or part of a larger building, as there are hints in the geophysics that it continued north.

Block XXI.II and Block XXI.III on the western side of the insula and non-aligned to the grid were isolated single-cell structures; no purpose for them was proffered, though just to the west of Block XXI.II was a hearth with a long flue which the Antiquaries had come to associate with the dyeing industry.

Insula XXVII

Insula XXVII was a regular block; nonetheless, the Antiquaries had difficulty delimiting the eastern side, though the road shows up clearly enough in the geophysics in the presence and absence of features. On the southern side the street was walled and there is a curious in-turn at the eastern end, the angle of which looks as if it is respecting the presumably filled-in ditch of the Inner Earthwork; indeed its buttressing may be because of the possibility of subsidence into the ditch.

House XXVII.1, in the north-west corner of the insula, is a sprawling complex arrangement, possibly originating in an L-shaped building which was then extended significantly to the east. Within what might have been the original L-shaped core, the eastern range had a large tripartite suite with an apsidal section. The mosaic within here was dated to the early fourth century on the basis of similarities with one at Sparsholt, although whether this implies the entire residence is very late, is unclear (Mosaics 321.93–100, Neal and Cosh 2009, 232–6). Walthew commented upon the tendency for better living rooms to be in the new wings of houses, and how these sometimes projected out into the main courtyard; he cited this house as one of many examples (Walthew 1975, 202–3). Rooms 10 and 11 were situated directly above the Inner Earthwork ditch. 'The most curious feature about the room was the deposit of bones and vessels of pottery under the floor in the angles and along the walls. The original outer room (10) had a pot embedded in the south-west corner, and deposits of bones in the two northern corners. The inner room (11) had along its eastern side a deposit of bones and three pots, and there were two other pots along the north wall to the left of the fireplace. The pots had their mouths flush with the floor and contained nothing but earth. Similar pots, but singly, have been found in like circumstances in other houses in the town, but never before has such a series been found' (St John Hope 1902, 19). The bones were groups of lambs, birds or fowl. See also Boon (1974, mosaics 73, 216, 220, domestic shrine 161, 164, layout 192, 194, vessels sunk in floor 195, earlier charred building 199, wooden threshold 204, wall-plaster 212, fireplace 343) and Perring (2002, 188–9) who conducted an analysis of the functional use of space within this building.

House XXVII.2, in the centre of the western edge of the insula, was another courtyard house, with two main ranges on the northern and eastern sides. A unifying portico joined the front of these and was extended to the west along the roadside to form the courtyard. Both ranges may have started as double-corridor houses, but establishing a sequence is not easy. It is likely the additional heated rooms at the end of the southern range are later. Behind this were a number of rectangular block buildings: Block XXVII.I was on a similar alignment and may have been related; Block XXVII.III was earlier than the extension to House XXVII.2, while Block XXVII.II was on a very different alignment, and sat directly on and parallel to the ditch of the Inner Earthwork. Blocks XXVII.I and III were considered to be agricultural store buildings by Boon (1974, 259). See also Boon (1974, alignment to grid 307, fireplaces 343).

House XXVII.3, in the south-western corner of the insula, was in essence a double-portico house, but with a wider portico on the western side. Various additions were made to it at the rear and southern end (later double-corridor type, Berry 1951).

Block XXVII.IV is a small three-room rectangular building. The original Antiquaries' plan had this at a significantly different angle to the grid, but the geophysics do not appear to bear that out and it has been repositioned.

NOTABLE FINDS FROM INSULA XXI

An unarticulated human leg, arm and skull came from a pit. Other finds included a white clay model of a cock (Pit XXI.L), and a glass bowl together with, much further down, some 'pseudo-samian' and other glass fragments from Pit XXI.JJ which predated House XXI.4. The location of many finds was not separated between Insulae XXI and XXII, see XXII (Interior 3) for details.

NOTABLE FINDS FROM INSULA XXVII

Generally there are better provenanced records of objects in Reading Museum from this insula.

The Antiquaries reported architectural fragments, two decayed stone finials, a flue tile inscribed with '*Fecit tubum Clemetinus*', another tile which may have a gaming-board pattern drawn on it, an axe head, a pewter jug and a pair of iron tyres, all from Pit XXVII.VI; an iron hook, the hoop from a barrel and a staple, all from Well XXVII.XXV. An engraved piece of glass with a fish and a palm branch (Christian emblems), a plated gold Iron Age coin, and a moulded glass cameo, probably of Arethusa, patron goddess of Syracuse, possibly late Republican in date, were found in 1971 just east of House XXVII.3 (Greenaway and Henig 1975).

Fulford discussed the votive nature of many of the pits from Insula XXVII (Fulford 2001, 204).

INTERIOR 7: INSULAE XXXVI AND XXXVII (THE RICKYARD) (FIGS 5.22–24)

HISTORY OF INTERVENTIONS

1893	Excavation of Insula XXXVII east part (St John Hope 1893b; Fox and St John Hope 1894, 237).
1908	Excavation of Insula XXXVI (St John Hope 1909a, 479–83).
1908	Excavation of Insula XXXVII west part (St John Hope 1909a, 483–4).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insula XXXVII: a note (Le Schonix 1894); a lecture, details of the trenching and finds from the Rickyard (St John Hope 1909c).

DESCRIPTION

Both insulae were truncated by the Town Wall. When excavated by the Antiquaries, they observed, during their 1893 season trenching the Rickyard, that a broad strip lining the bank might be a street (Fox and St John Hope 1894, 237). The geophysics again show, as elsewhere around the town, a slight negative feature or line set back from the bank which may corroborate this, although it may also be a more modern field edge boundary.

The other major feature of this area is that Boon significantly 'tidied it up' when he constructed his overall site plan. Block XXXVI.I, House XXXVI.1 and the road between the insulae were adjusted to align with the main street-grid, which the geophysics make clear they did not.

Insula XXXVI

Insula XXXVI was bounded on the east by a lane, hypothesised by the Antiquaries and showing clearly in the geophysics and aerial photography.

Block XXXVI.I was a single-cell building within its own large rectangular enclosure, though the north-east corner of the latter had been angled for no obvious purpose. The enclosure was cut off by a lane from the rest of the insula. Only two pits were found within it despite the 'many trenches' cut across it and the geophysics suggest no additional buildings. Adorned with wall-plaster, the building was assumed to be a small temple or shrine, perhaps of the *lares*, or perhaps more public. Boon discussed the shrine and pits within the enclosure, and also the size and shape of the enclosure, in his attempt to divide up the layout of Silchester into neat building plots (Boon 1974, 98, 152–3). The strongly-enhanced magnetic anomalies within the enclosure relate to a former north–south field-boundary (the alignment across the field of these magnetic 'spikes' can be seen in the geophysics, and the boundary appears on earlier maps and aerial photographs, see FIG. 6.14), but it is worth noting that there is a reasonably large anomaly in approximately the middle of the enclosure (3–4 m in diameter), and the temple or shrine, if it is that, is slightly offset. This is reminiscent of the Folly Lane and Gosbecks enclosures, with central dug features, and offset temples. The image of the anomaly close-up appears to have a slightly rectangular

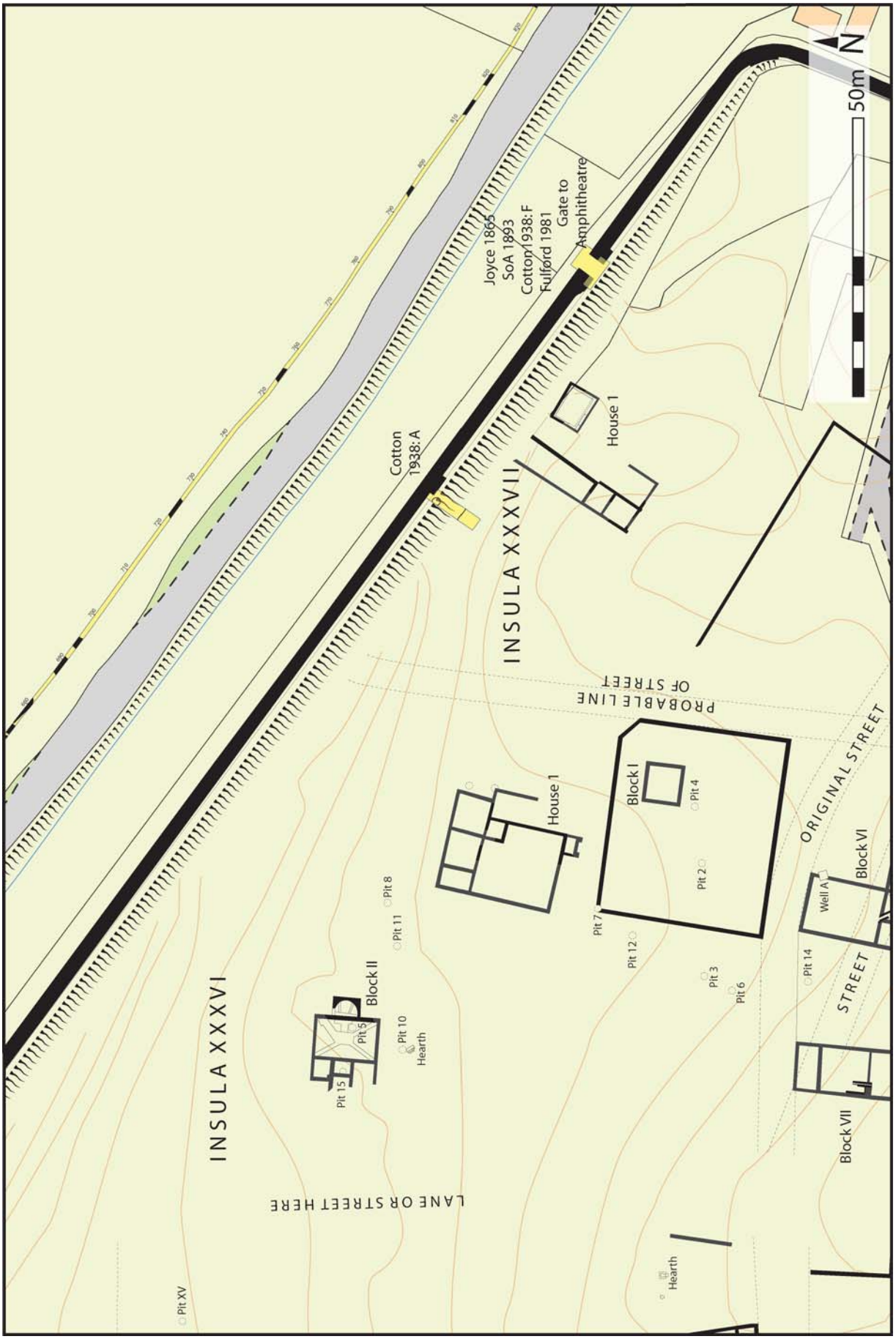

FIG. 5.22. Interior 7 – Antiquaries' plans and modern topography.

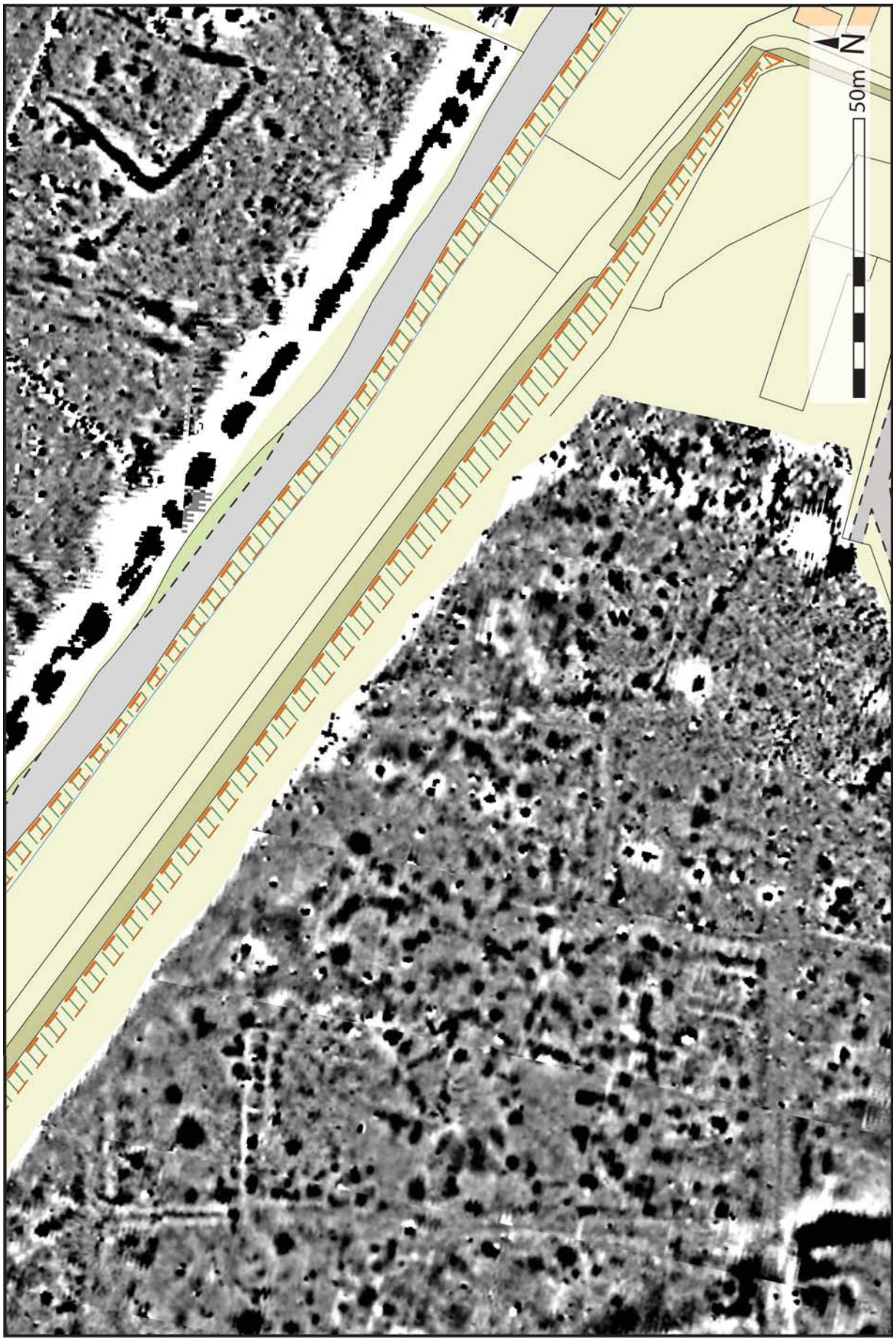

FIG. 5.23. Interior 7 – fluxgate gradiometry image (± 7 nT).

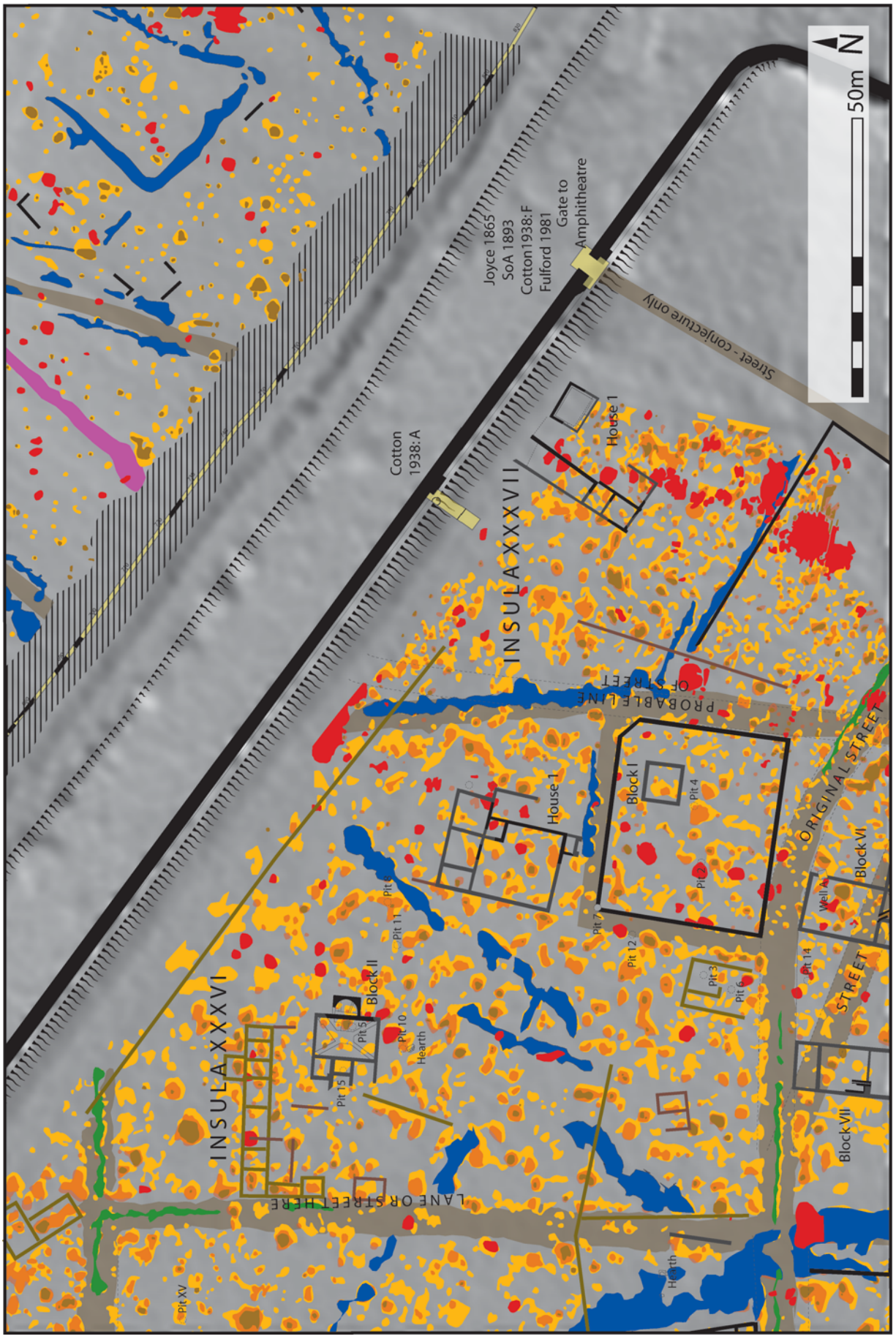

FIG. 5.24. Interior 7 – interpretative plan.

north side though resolution is poor. There is a potential match between this feature and 'Pit 4' excavated by the Antiquaries (see discussion on burial enclosures, p. 383).

House XXXVI.1 was to the north of this shrine, barely visible on the geophysics except for the magnetic room-fills. There appear to be two ranges round a courtyard, one to the north and another on the east side. Immediately to the north-east of this was a pit containing around 60 horn-cores, a coin of Domitian and an enamelled bronze lid from a seal-box (St John Hope 1909a, 480; Fulford 2001, 207). Here were also found two bronze bowls (Boon 1974, 237, fig. 35.5).

Block XXXVI.II was situated towards the north-west of the insula. Only a heated hypocaust room with an apsidal extension was excavated by the Antiquaries, though a far larger complex is revealed by the geophysics, which suggest it is part of a much larger courtyard building linking it to the road. To the east of this there was also the hint of a large semi-circular anomaly, *c.* 13 m diameter, though without clear walls associated with it. Given that, it has not been drawn as a clear building on the interpretative plan.

Insula XXXVI south-west: two additional buildings have been revealed here, one from aerial photographs and another from the geophysics, both small rectangular affairs. There are also a couple of potential linear anomalies which do not align with the later grid, but may be features related to the earlier Inner Earthwork.

Insula XXXVII (including the Rickyard)

Insula XXXVII straddles Interior Sheets 7 and 11, but all the elements within it are discussed here. The irregularly shaped area caught between the farmyard and the corner of the wall had been used as a rickyard or stackyard and for other purposes (five long parallel sheds were noted there on mid-twentieth-century OS maps and aerial photographs, perhaps for housing fowl, see buildings on Exterior Plan 14). Fortunately these superficial structures seem to have impacted minimally on the geophysics; while the fence-lines show as two alignments of spikes, the sheds do not. The eastern half was trenched in 1893 revealing nothing, and the western half was the last part of the interior to be dug in 1908.

House XXXVII.1 lay towards the north of the insula, perpendicular to the Town Wall, and possibly pre-dating it, as the building appears to disappear under the Town Wall bank. Unfortunately fragments of mosaic do not help establish the date or sequence (Mosaics 105–6, Neal and Cosh 2009, 238). It appears to be a corridor building facing east-south-east, with an additional pavilion on the northern end with a thickened wall perhaps to support a raised floor (Boon 1974).

The Enclosure in the southern half of the insula was delimited by a wall on two sides which the Antiquaries marked, and by a third on the southern side which remained only as 'an abundance of loose flints along the line'. It may have contained an area off the street which could, as the Antiquaries suggested, have been used for cattle markets and other activities. The eastern edge of it aligns directly with the Amphitheatre Gate, so it is likely that on this side there was a roadway, though the Antiquaries did not suggest it, nor was it within the area surveyed by geophysics, nor was it in land conducive to aerial photography. It has been placed on the plan but exceptionally is entirely speculative based on alignment rather than evidence.

NOTABLE FINDS

Two bronze bowls in perfect condition came from House XXXVI.1. While Pit XXXVI.12 yielded 'little of importance' except for three silver coins (two of Antoninus Pius and one of Gordian the Younger).

INTERIOR 8: INSULAE XIII, XIV, XV AND XVI (FIGS 5.25–27)

HISTORY OF INTERVENTIONS

Pre-1759	John Stair in Insulae XIII, XIV and House XVI.3 (Taylor 1759).
1894–5	Excavation of Insula XIV (St John Hope and Fox 1896, 219–53).
1895	Excavation of Insula XIII (St John Hope and Fox 1896, 216–19).
1896	Excavation of Insula XV (St John Hope 1897a, 409–15).
1896	Excavation of Insula XVI (St John Hope 1897a, 415–22).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insulae XIII, XIV, XV and XVI: a note (Fox 1899b, 84–5); lectures (St John Hope 1897b; St John Hope and Fox 1897a; b).
Insulae XV and XVI: an extensive report of a contemporary visit on 23–4 June 1896 (Richardson 1897).

DESCRIPTION

Insula XIII

Insula XIII lay just inside the West Gate. No direct evidence was mentioned from the excavations to say if there was a roadway between the town defences and the insula, though the Antiquaries clearly thought it a possibility; the geophysics only hint slightly at one (St John Hope and Fox 1896, 216). Five buildings were discovered within the area, mostly simple rectangular structures (Boon 1974, 187). The general openness and the discovery of a variety of hearths and flues meant that the Antiquaries suggested that this was also part of the 'dyeing industry' area, along with Insulae X and XI excavated the previous season. 'In two of the buildings were flues or furnaces of the kind previously noted as possibly used in dyeing, and the remains of four others were scattered about in the *insula*' (St John Hope and Fox 1896, 216). On the northern side the Antiquaries found nothing except in the north-east corner, but Taylor's map of 1759 shows a number of buildings dug by Stair (FIG. 3.3), and these imperfectly corroborate additional walls suggested by the geophysics and aerial photography.

House XIII.1 was orientated north–south along the eastern side of the insula. In origin it was perhaps a row of four rooms with a portico on the west-facing side, to which a couple of larger rooms (or yards) had been added to the south and a heated room to the north, and from the quantity around clearly roofed with hexagonal stone slabs, which are not uncommon on the site. The Antiquaries wondered if some of the rooms facing the street had been used as shops, but there was no primary evidence to confirm this. Boon noted the building was fractionally out of alignment with the grid (Boon 1974, 307), though the difference is marginal; what is perhaps more interesting is that the geophysics hint at the building significantly encroaching onto the road, with east–west walls possibly crossing the road. However, if there had been walls trailing off in this direction along the street-facing wall, it would have been strange for the Antiquaries not to notice them.

Block XIII.I was initially a simple two-room block situated alone in the north-west part of the insula at a slight angle to the grid, though the geophysics added two additional internal divisions; adjacent was a long flue or hearth. Just to the south-east of this was an area of burnt remains and fragmented roof tiles as if a house had burnt and collapsed. The Fluxgate Gradiometry certainly showed heightened responses here.

Block XIII.II was a single-room rectangular building in the middle of the southern side of the insula, like Block XIII.I at an angle to the grid. The flue within it meant that it was interpreted as a drying place for cloth and yarn from Fox and St John Hope's hypothesised dyeing industry; whereas Boon interpreted it as being related to corn-drying which would be more commonly accepted now (Boon 1974, 256).

Block XIII.III and Block XIII.IV were rectangular buildings gable-end and perpendicular to

the main east–west street. Had they been excavated a couple of years previously they might have been described as shops, though now with the dyeing industry fixation they were pressed into the service of this interpretation by the Antiquaries; so in Block XIII.III a 'patch of gravel near the middle of its area may indicate the site of a drying hearth', and in Block XIII.IV the hearth and flues present were complemented by 'a pit, which perhaps was used as a water-hole' (St John Hope and Fox 1896, 217).

Insula XIV

Insula XIV was largely surrounded by a wall, so very private. It contained two big houses, both of which were accessed through major gateways on the main east–west road (opened the season before the main area was excavated), though House XIV.1 also had access into the main courtyard from the south. It is curious that both the original blocks from which Houses XIV.1 and XIV.2 developed should have been constructed so close together, House XIV.2 seemingly blocking the view from House XIV.1. Some of the northernmost walls were shown on Taylor's map of 1759 (FIG. 3.3) and correlate well with the Antiquaries' plan of about 150 years later.

House XIV.1 was the largest courtyard house at Silchester, other than 'the *mansio*', occupying about the western two-thirds of the insula. It probably began life as a row-building sandwiched between two porticoes and embellished with projecting pavilions on the east-facing side. This was eventually to become the eastern range, to the west of which were added three others to create a courtyard, all unified by an internal and external peristyle. The building was richly adorned with mosaics. The floors from two of the rooms in the eastern range showed that the original thresholds to the rooms were on the eastern side, suggesting these were the earlier more important entrances, rather than from the courtyard to the west, which may have risen in importance once the courtyard became complete. Both these floors were stylistically early in date (321.40 and 321.42); in their corpus Neal and Cosh suggested second century, whereas in an earlier article Cosh related the black and white chequered mosaic to the Period 2 ones from Fishbourne, usually considered later first century (Cosh 2004, 233). These variable estimates give us a potential *terminus post quem* for the extension to the house (Mosaics 321.38–42, Neal and Cosh 2009, 207–13), though even these mosaics were later additions to these rooms since the excavators noted that they abutted the plaster on the walls, which continued down for some inches, as if they had been inserted later above an earlier flooring. They are also discussed by Johnson (1993, 152–4).

From Pit XIV.J came the stock of a wooden force-pump with leaden seals, assumed to be for pumping water out of a well into a storage tank, or from a tank at ground level to an overhead cistern for a bathhouse (St John Hope and Fox 1896, 233–4); it is further discussed in Ditchfield (1897), Gowland (1901, 415), Liversidge (1968, 51), Boon (1974, 86–7), Oleson (1984, 266–8), and most recently re-analysed by Stein (2012; 2014, 304–14).

The building has also been extensively discussed by Ling, focusing his analysis on the wall-plaster from the eastern range. The wall decoration had been reconstructed from fragments of plaster by Fox in what was pioneering work in the field, but he thought they came from a dado rail which Ling criticised first in Davey and Ling (1982, 153–5) and then in Ling (1984). Within the latter he offered his own interpretation of the sequence of the building of the entire house, seeing adaptations to the original structure in the later second or early third century.

Boon used the house to suggest that the early property qualification for governance in the town must have been modest, since even the grandest houses, like this one, took a long time to grow out of smaller origins. He also thought the simpler Late Roman mosaics and their patching illustrated how investment declined in the Late Roman period as the ruling classes moved out of the towns (Boon 1974, 59–60, 192). See also Boon (1974, layout 190–4, domestic shrine 164, mosaics 73, 215, 221, other flooring 209, plan 189, wall-plaster 211–12, 219, outbuildings 256, assumed agricultural function 260).

MacMahon wondered if Rooms 2 and 3 on the southern side were *tabernae* (MacMahon 2003, 34).

House XIV.2 occupied the eastern third of the insula. It was a complex building, perhaps

FIG. 5.25. Interior 8 – Antiquaries' plans and modern topography.

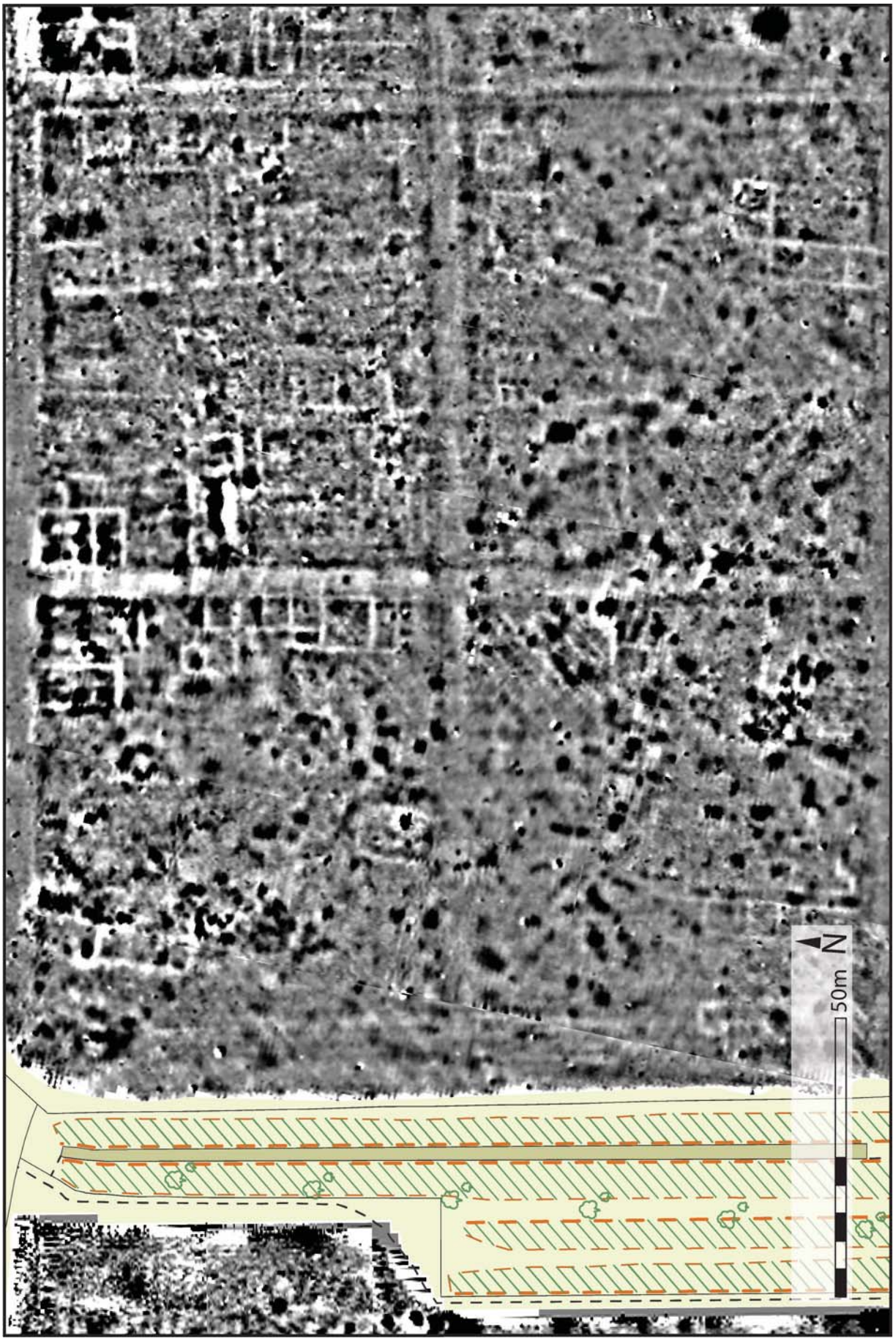

FIG. 5.26. Interior 8 – fluxgate gradiometry image (± 7 nT).

FIG. 5.27. Interior 8 – interpretative plan.

originating from the western range: a north–south row-building with a portico on the eastern side. In the middle of this was an off-set chamber with a fine mosaic and a 'delicate blue' wall-plaster, possibly serving as a *lararium*. The earlier use of this possible shrine as a kitchen is discussed by Perring (2002, 192) in the context of looking at ritual deposits such as infant burials in kitchen spaces. One of the mosaics in this range is stylistically second century (321.48). An eastern range was added via a gallery with a lavishly decorated fourth-century-style panelled mosaic (321.49, Mosaic 1 in Reading Museum). A photograph of Fox drawing the mosaic can be seen in Boon (1974, 34). This late dating for the mosaic in the gallery was diametrically opposed to that envisaged by Fulford and Allen, who considered that the corridor might be later first or second century and wished to see a much earlier date for the mosaic in their analysis of the lithology of early tesserae from various sites (Allen and Fulford 2004, 17–18). The gallery led to a presumably later range which contained within it a large bipartite room (Cosh 2001, 235–6), (321.43–51, Neal and Cosh 2009, 214–18).

The northern outbuilding (the yard and Rooms 25–8) was interpreted as a possible dairy on the basis of the large, 0.9 m diameter, mortarium within it by Boon (1974, 238, 260); though having a herd of cattle coming daily into the centre of the town does seem a little extraordinary.

See also Boon (1974, mosaics 73, 216–17, 220, 345, privy 90, domestic shrine 161, 201, *triclinium* 194, fireplace 343, tiled roof 203, slab-table 340).

A large earlier building or enclosure occupied a large part of this insula. Two long walls on a slightly different alignment forming a right-angle pass under the northern and eastern ranges of House XIV.1 and then under the western range of House XIV.2. A short parallel wall also just peeps out under the eastern range of House XIV.2. So, if the dating evidence for House XIV.1 suggests the eastern range is second century at the latest from the mosaics, then we can be fairly confident this earlier structure is first century. The Antiquaries also noticed that there had been a lot of subsidence into much earlier pits, particularly in House XIV.1; many had little material in them, but one contained 'pseudo-samian bowls of an early type' and a marbled pillar-moulded glass bowl, an early Italian import (from Pit XIV.I, under the south-west corner of the building).

Insula XV

Insula XV contained several larger buildings and less open space than Insulae IX, X, XI, XII and XIII; but the presence of circular hearths and long flues meant that the Antiquaries associated it with the dye-works industrial zone, the idea for which had emerged during the 1884–7 seasons. Indeed, the absence of pits or anything else in the central northern part of the insula meant that the Antiquaries concluded that 'it is therefore not improbable that this formed a bleaching ground' (St John Hope 1897a, 413).

House XV.1 was in the north-west of the insula, adjoining at a very slight angle the east–west street at the gable end. It was a four-chamber row with a portico on the east-facing side (early single-corridor type, Berry 1951). Traces of wall suggest some kind of extension along the street frontage to the east.

House XV.2 was in the central-southern part of the insula, on the same orientation as House XV.1, so not quite perpendicular to the street. In essence it was a double-corridor building sandwiching a row of five or more rooms, with extensions having been made to the north, central and southern part of the eastern side. This was used as an example of a 'double-corridor house' by Walthew (1975, 199), or 'later double-corridor house' in the case of Berry (1951) where the rear corridor would often end up being subdivided into rooms. Walthew drew parallels with rural villas such as Farningham and Ditchley. Close by was a circular hearth of the type the Antiquaries had been associating with dye-works. See also Boon (1974, layout 192, adjustment to align with grid 307).

Block XV.I in the western part of the insula was a simple isolated square building, though there are hints from the geophysics that this is the northern end of a row-building continuing south.

Block XV.II was approximately perpendicular to the north–south street on the eastern side. It was a large rectangle, but may have had a corridor on the south-facing side; it was described by the Antiquaries as a barn. Similarities with Block XXVII.III and House XXVII.2 were observed by Boon (1974, 259).

Block XV.III was earlier than and overlain by Block XV.II and was at an 18-degree angle to the street-grid, orientated north-east to south-west (Fox 1948, 175). It had four chambers with a corridor on the south-east-facing side. The monolithic threshold stone drew comment from Boon (1974, 204) because of its rarity at Silchester. Perring (2002, 190) used this building as an example in his functional analyses of the use of space in Romano-British housing.

Block XV.IV was a single square room with a wall running off it, suggestive of a very incomplete plan; the geophysics hint at further walls to the south, but these are very unclear.

Insula XVI

Insula XVI was dominated by three houses; however, the Antiquaries did come across a number of large very solid gravel areas with the impression of floor-joists, and they wondered if they were missing wooden buildings of which these comprised the floors, which is highly likely (Boon 1974, 208). One of the main findings of this season, which was then traced back into Insula XV, was that of a water-pipe. This emerged during the excavation of Pit XVI.LL in the south-east corner of the insula, in which the cut section of an earlier trench could be seen. This was chased and proved to be a pipe trench, at times 0.9 m wide and 1.8–2.1 m deep. There were regular iron collars for the pipe *c.* 2.13 m apart which had an internal diameter of 0.12 m. The pipe trench continued under the Town Wall and into the ditch, terminating 5.5 m from the Wall 'against a rough mass of flint masonry'. Levels suggested the trench bottom was indeed level, even if the depth of the collars varied alarmingly. The pipe continued on into Insula III, first turning north-east for a while then curving back eastwards, terminating *c.* 13.7 m from House III.1, though in this stretch is it less level. Chasing it the Antiquaries re-excavated part of Insula III, only to find evidence for a new building at a deeper level (so unplanned) which they had totally missed the first time. Fulford associated this with an early palatial building in Insula III (Fulford 2008, 4); however, given it runs precisely parallel to the east–west road, it rather depends on how early that roadway is.

The insula also gained early attention from the find of a gold coin of Allectus by a ploughboy in 1746 in its south-east corner, one of the first ever reported finds from the site (Boon 1974, 24). This was published by Ward (1748, 609–13) and indicated on the Wright/Stair's maps of the site (FIG. 3.2). 'The place where it was found, is marked in the plan by the letter P; which of late years has gained the name silver hill, because more silver coins have been found there, than in any other part of the city' (Maclauchlan 1851). The 1740s excavations were reasonably extensive, revealing on Taylor's 1759 map of Hampshire quite a bit of the plan of what was later to be christened 'House XVI.3' (FIG. 3.3).

House XVI.1 occupied the north-west of the insula. It had perhaps started out as an east–west double-corridor building which had been extended to the south at both ends to create three sides of a courtyard. Evidence for a fourth comes from the geophysics. The house lay at a slight angle to the grid, in common with House XVI.3 and both houses in Insula XV. The hearth and furnace (for brewing or baking), along with the sunken earthenware container for raking out the ashes next to it, drew comment from Boon (1974, 195, 343).

House XVI.2 in the north-east corner originated as a row-building with a portico to the east (early single-corridor type, Berry 1951); this was misaligned to the street-grid by about 16 degrees (Fox 1948, 175), though a later extension which was added to the north brought it more into line, but still not quite. A possibly second-century mosaic in the original building had been subsequently covered and replaced by a later plain tessellated pavement in red (Mosaic 321.52, Neal and Cosh 2009, 218).

House XVI.3 in the south-east corner, with a very incomplete plan, was an L-shaped building. However, the remains of a mosaic came from an imperfectly known extension to this (Mosaic 321.53, Neal and Cosh 2009, 218–19). It was probably first excavated by Stair judging by Taylor's map (FIG. 3.3), while on Ward's plan 'Money Hill' is placed in exactly this location confirming excavations or discoveries were being made here (Ward 1748; Taylor 1759; Brayley and Britton 1805, 249). The building, like all those in the insula, is slightly misaligned to the grid. From just in front of this house in Pit XVI.KK came a significant quantity of sheep-bone-

working residue, possibly from making bone rings from shoulder blades (Fulford 2001, 207; St John Hope 1897a, 421–2). See also Boon (1974, 259).

Block XVI.I was a simple rectangular structure in the north-east corner of the insula. No purpose was proposed for the building.

NOTABLE FINDS FROM INSULA XIII

'Practically no objects of interest were found in it.'

NOTABLE FINDS FROM INSULA XIV

Finds included the wooden water pump (Pit XIV.J) mentioned above; a glass marbled pillar-moulded bowl (Pit XIV.I); numerous bone pins, needles, and ornamental inlay; in bronze were brooches, a 'curious mass of nails', an 'exceptionally perfect stylus', tweezers, several ligulae, a narrow boat-shaped vessel; in iron were an iron plate with bronze studs, the bottom of a hanging-lamp stand, knives, styli, keys, shears, trowel, hammer, a pair of compasses, a small anvil, the head of two javelins; and also, lead weights.

NOTABLE FINDS FROM INSULAE XV AND XVI

Objects in bronze include a bronze jug with a handle terminating in a comic mask (from the well next to Pit XVI.M) (St John Hope 1897a, 418; Me-134 in Hutchinson 1986, 342); as well as 'a delicately made strainer with the perforations disposed in a fret pattern, two bells, a flattened body inlaid with niello, part of the bronze plating of an ornamental casket, a ring with what may be a Chi-Rho on the bezel, a charm against the evil eye in the form of a bull's head with a phallic emblem in the mouth, and four oval brooches once gilt, of which two retain their imitation glass gems [and] the usual series of brooches, pins, spoons, tweezers, keys, spatula etc.'. In addition there was in lead the tripod foot of a candlestick; in iron 'a pair of compasses, the end of a cart pole (?), two lamps of different shapes, a candlestick, and a number of knives, styli, keys of various patterns etc.'.

INTERIOR 9: INSULAE II, III AND IV (FIGS 5.28–31)

HISTORY OF INTERVENTIONS

1730s/40s	John Stair revealing Forum and *RIB* 67 (Ward 1748; 1744–5; Taylor 1759).
1866–73	Excavation of Insula IV Forum 'Block V' (Joyce 1881b, 349–65).
1890	Insula IV excavation of basilica northern apse (Fox and St John Hope 1893a, 557).
1891	Excavation of Insula II (Fox 1892, 269–80).
1891	Excavation of Insula III (Fox 1892, 280–4).
1892	Excavation of Insula IV (Fox and St John Hope 1893a).
1896	Excavation in Insula III following a pipeline (St John Hope 1897a, 423–4).
1908	Recovery of objects as Forum-Basilica is filled in (St John Hope 1909c).
1961	'Church' re-excavated by Collingwood (Frere 1976).
1977, 80–6	Excavation of the Basilica (Fulford and Timby 2000).
2013+	Excavation of Insula III bathhouse (interim: Fulford *et al.* 2014).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insulae II and III: notes (St John Hope 1891; Fox 1899b, 82); society visits (Anon. 1891c; a; 1890–3b; Rutland 1890–1); a lecture (Fox 1893).

Forum excavation by Joyce: a lecture (Joyce 1867a, 496–7; 1873, 21–6; 1876a, 56–7); interim report (Joyce 1876a, 56–7); society visits (Thompson 1874; Anon. 1867, 288); a discussion (Hilton Price 1887); a note (Anon. 1866).

Forum and 'church' excavation by the Antiquaries: a note (St John Hope 1893a); photographs of the 'church' under excavation (Anon. 1893a, 313; Young 1894); a note (Fox 1899b, 82); lectures (St John Hope 1909c; Fox and St John Hope 1893b; Fox *et al.* 1893).
The 'church' by Collingwood: interim statements (Richmond 1962, 185–6; Boon 1974, 32, 173–84).
Basilica excavation by Fulford: reviews (Esmonde Cleary 2001; Millett 2001; Mason 2001; Niblett 2001; White 2001; Guest 2003); interim reports (Fulford 1985a; 1987a; 1993; 1983; 1985c; 1987b; 1986a; 1987c; 1986b); interim notes 1977 (Goodburn *et al.* 1978, 464–5); 1980 (Grew *et al.* 1981, 362); 1981 (Rankov *et al.* 1982, 389–91; Selkirk and Selkirk 1981); 1982 (Frere *et al.* 1983, 330–1; Fulford 1982b); 1983 (Frere *et al.* 1984, 324–6); 1984 (Frere *et al.* 1985, 311); 1985 (Frere *et al.* 1986, 421); 1986 (Frere *et al.* 1987, 348–9).

DESCRIPTION

These insulae have seen the greatest investigation as they contain the Forum-Basilica and the supposed church amongst other features. Insulae II and III took position behind the basilica, which was in Insula IV, the largest rectangular insula in the centre of the town. They were divided by the main north–south street between the North and South Gates.

Insula II

Insula II was excavated early in the Antiquaries' campaign; it was totally walled off, containing four main buildings, one in each corner.

House II.1 lay in the north-east corner of the insula. Two north–south ranges on a slightly different alignment were revealed by the Antiquaries in 1891, but additional walls from the geophysics make clear that this was part of a larger courtyard house developed over time. From a hypocaust in the north-east of the building came a fragment of imported marble, possibly Campan Vert from the Pyrenees and originating from the remains of the Basilica. A small bit of painted plaster came from the north-west part of this house; the only painted plaster to be remarked upon in this insula. House II.1 appears to overlie an earlier structure on a fractionally different alignment which had three or more rooms containing two mosaics (321.89, Neal and Cosh 2009, 196–7) (see also Boon 1974, 213, 347).

House II.2 was in the south-west of the insula. It was a simple row-building with a portico to the east, with the addition of larger heated rooms to the north (Berry 1951). It contained two mosaics (321.101–11, Neal and Cosh 2009, 198–9). The geophysics showed a possible additional range on the street corner. Fox and MacMahon thought that several of the rooms (3, 4, 7 and 8) could be *tabernae* (MacMahon 2003, 34). Fox's reasoning was that the street-corner room lacked an obvious wall to the street. However, *tabernae* built as an integrated part of a more elite building rarely had a door giving access through to the larger dwelling, so while possible this is not compelling evidence. Fox also thought the associated small square building to the east might be an ash-pit. See also Boon (1974, shrine 160, layout 190, raised hearth 195, mosaic 217).

House II.3 (originally unnumbered) in the south-east corner survived only as fragmentary traces and isolated elements of hypocausts (Fox 1892, 269; Boon 1974, 259). It is barely visible in the geophysics.

House II.4 (originally unnumbered) in the north-west corner is a four-room rectangular house with a possible unrecognised extension to the east, here the remains of a hypocaust were found. Underneath all of this were the remains of an earlier house on a different alignment; this included one mosaic (321.12, Neal and Cosh 2009, 199).

An additional isolated square building has also been identified in the geophysics in what had been described as the 'open ground' just south of House II.1.

Insula III

Insula III was originally dug in 1891, but the Antiquaries re-excavated here in 1896, chasing the water-pipe they had discovered in the insulae to the west. The insula was totally walled off.

House III.1 and Baths lie on the southern side of Insula III. It was a three-row house with a portico on the west and portico and pavilions on the east (Berry 1951; Boon 1974, 191, 306). The latter appeared to adjoin to the east a block of buildings described as a bathhouse, because of the hypocaust and the large drain; in contrast, Boon interpreted the four rooms aligned north–south and fronted by a colonnade as shops (Boon 1974, 54). *RIB* 76 came from here, a fragment of Purbeck marble, which contained only a few letters from the bottom-right corner of an inscription; however, one of the words started 'AT…' which was taken to be Atrebatum. It could have been a dedicatory inscription of the baths or from the Forum or an earlier building. This corner was partly re-excavated by Fulford in 2013–14, and an updated assessment will no doubt appear soon.

House III.2 (originally unnumbered) is a south-facing winged corridor, containing one mosaic (321.13, Neal and Cosh 2009, 199).

House III.3 (originally unnumbered) lies in the north-east corner and is a small house which includes a channelled hypocaust under a mosaic (321.14, Neal and Cosh 2009, 199).

House III.4 is a new addition in the north-west corner of the insula. This comprises a series of walls from the aerial photographic and geophysical data. Several rooms can be noted in the interpretative incomplete plan, and immediately to the south-east of the clearest room traces of a hypocaust were noted by the Antiquaries.

The houses in both insulae were used in a discussion of buildings and measurement units by Walthew (1987, 206, fig. 2c).

While few structures were observed by the Antiquaries in the northern and western parts of the insula, remains of partial floors gave them reason to think this absence might be illusory. When Pit III.H in the central-northern area was excavated, 0.9 m down the remains of a hard rammed chalk floor were discovered; and in Pit III.M in the middle were the remains of a fine mosaic of 'excellent workmanship' from demolition or refurbishment in the vicinity (Mosaic 321.15, Neal and Cosh 2009, 199). However, the greatest evidence came as part of the insula was re-excavated when a water-pipe was chased across from the southern sides of Insulae XV and XVI into Insula III. It led to a building at a much lower level that they had 'entirely overlooked' when they first excavated. 'This is to be accounted for by the fact that besides its greater depth it is overlaid by a hard layer of gravel which has been intentionally deposited above it, and further, because it partly underlies House No. 1. So far as the building could be traced it appears to contain at least two well-made drains built of tiles, as well as one or more hypocausts, and a chamber with a tile floor … That our pipe conducted water to it from the city ditch there can be little doubt' (St John Hope 1897a, 424). Alas no plan was published of these remains, and the geophysics add only a few walls which are more likely only to relate to the later House III.1.

Fulford considered that this might be the focal point of a pre-Flavian monumental building, possibly the source of the Neronian stamped tiles found on the site, and also of a broad scatter of early architectural elements re-used in Flavian and later buildings in this area. He interpreted this hypothesised building as being a palace of Cogidubnus (idea touched upon in Fulford 2003, 99; and developed in Fulford 2008). In 2013 he began excavations to test this idea.

NOTABLE FINDS FROM INSULAE II AND III

A terracotta lamp embellished with a figure holding a cornucopia, from Pit II.A (within House II.1). A hoard in a pot concealed in the foundations in the south-eastern part of Insula III, containing coins 'of later emperors' (Fox 1892, 284). Pellet moulds from Insula II, immediately north-west of the insula containing the Forum-Basilica (Boon 1954b). A statuette in terracotta (image of Lucina or Latona?) and another fragment (Venus?). More than 20 dog skulls came from the area (Herbert Jones in Fox 1892, 285–8) and twenty fragments of quern (Shaffrey 2003).

DESCRIPTION OF INSULA IV (THE FORUM, THE 'CHURCH' AND SURROUNDS)

Insula IV overview

The Forum-Basilica lay at the centre of Insula IV, but left space for blocks of buildings separated

FIG. 5.28. Interior 9 – Antiquaries' plans and modern topography.

FIG. 5.29. Interior 9 – fluxgate gradiometry image (± 7 nT).

FIG. 5.30. Interior 9 – interpretative plan.

by additional smaller streets to the north, east and south. The insula is surveyed from north to south and then the Forum-Basilica and 'church' are discussed.

Northern strip: to the west was a courtyard building. The central area was 'riddled by pits' and two wells. Objects included a small bronze figure, perhaps of an infant Hercules, a bronze bowl and part of an antefix with a face on it. One pit included the necks of 39 flagons, another contained infant remains. To the east there are the outline walls of three sides of a building.

Eastern strip: to the north-east of the Forum entrance was a house with four shops to the north; to the south a tile floor remains of what may have been another house.

Immediately to the east of the Forum entrance was a notable deposit: 'The centre of this side of the Insula is underlain by an extensive bed of oyster shells, from [0.45–0.60 m] thick. This bed is [15.2–18.3 m] wide, and extends eastward from near the Forum entrance for at least [30.5 m]. The streets at this point are laid upon it' (Fox and St John Hope 1893a, 562). They considered it might be a dump for conversion into lime. It was noted that this spread conjoins with that observed by Joyce in his excavations in the south-east corner of the Forum, mentioned below.

Another curious deposit said to be from the same kind of area was the large number of stag's antlers 'found in the space immediately east of the Forum; and not in pits, but on the Roman surface' (Fox and St John Hope 1893a, 572; see also Fulford 2001, 207).

To the south-east of the Forum entrance there were no buildings identified in the excavations, though a structure appeared in the geophysics which overlay the street. A bronze figure of a winged seated victory or genius was found around here.

Southern strip: to the south-west of the Forum 'there was unquestionably a house, but only a few fragments of its floors and hypocausts remain, of so indefinite a character that the plan cannot be recovered'. To the south-east was the supposed 'church' described separately below.

INSULA IV: THE FORUM-BASILICA

History of excavations

The earliest recorded excavations were those of John Stair in the 1730s and 40s. A letter describing the works from John Collet to John Ward was published by Boon (1974, 23–4). While Ward's and others' publication of Stair's plan gave the first accurate overall layout of the site, it was Isaac Taylor's 1759 Map of Hampshire that showed the features that Stair had actually excavated (FIG. 3.3: Taylor 1759). The general topography is very good, so it is likely to be as faithful an understanding of what Stair found as was possible. The open area had been identified and the eastern entrance dug. In the west, the southern apse of the basilica had been revealed, but the area was identified as a temple. The findspot of *RIB* 67 (dedication to Hercules of the Segontiaci) was also shown on the northern side of the complex.

Joyce began excavating here in 1866 and opened up the entire Forum-Basilica. 'It yet remains, ruined as it is, to this hour a conspicuous and significant memorial of that wonderful people who carried their own order and discipline to the ends of the world' (Joyce 1881a, 330). The excavation remained open and the Antiquaries did little further work, though they re-planned the site. Collectively both created the iconic plan of what we now recognise as the Hadrianic-Antonine Forum-Basilica (Period 6). They recognised that what they were looking at might have been a later phase to an earlier building: 'It is possible that the inner ambulatory of the Forum was rebuilt at a late date, as fragments of the bases of large columns with mortar adhering to them, such as might have adorned the principal gateway, were dug out from the rubbish of the foundation walls' (Fox and St John Hope 1893a, pl. XXXIX, fig. 15).

In 1908 the Forum-Basilica was finally filled in, paid for by the fourth Duke of Wellington, after having been open for thirty years. Even during this operation, fragments of Purbeck marble and new pieces of inscription were recovered (St John Hope 1909c).

The Forum lay at rest until the post-War era meant that new deep-ploughing raised fears about the survival of strata within the town. The initial excavation of 1977 by Fulford sought to investigate the level of the damage, and the results led to the launch of the 1980–6 campaign a year after the site came into Hampshire County Council's ownership.

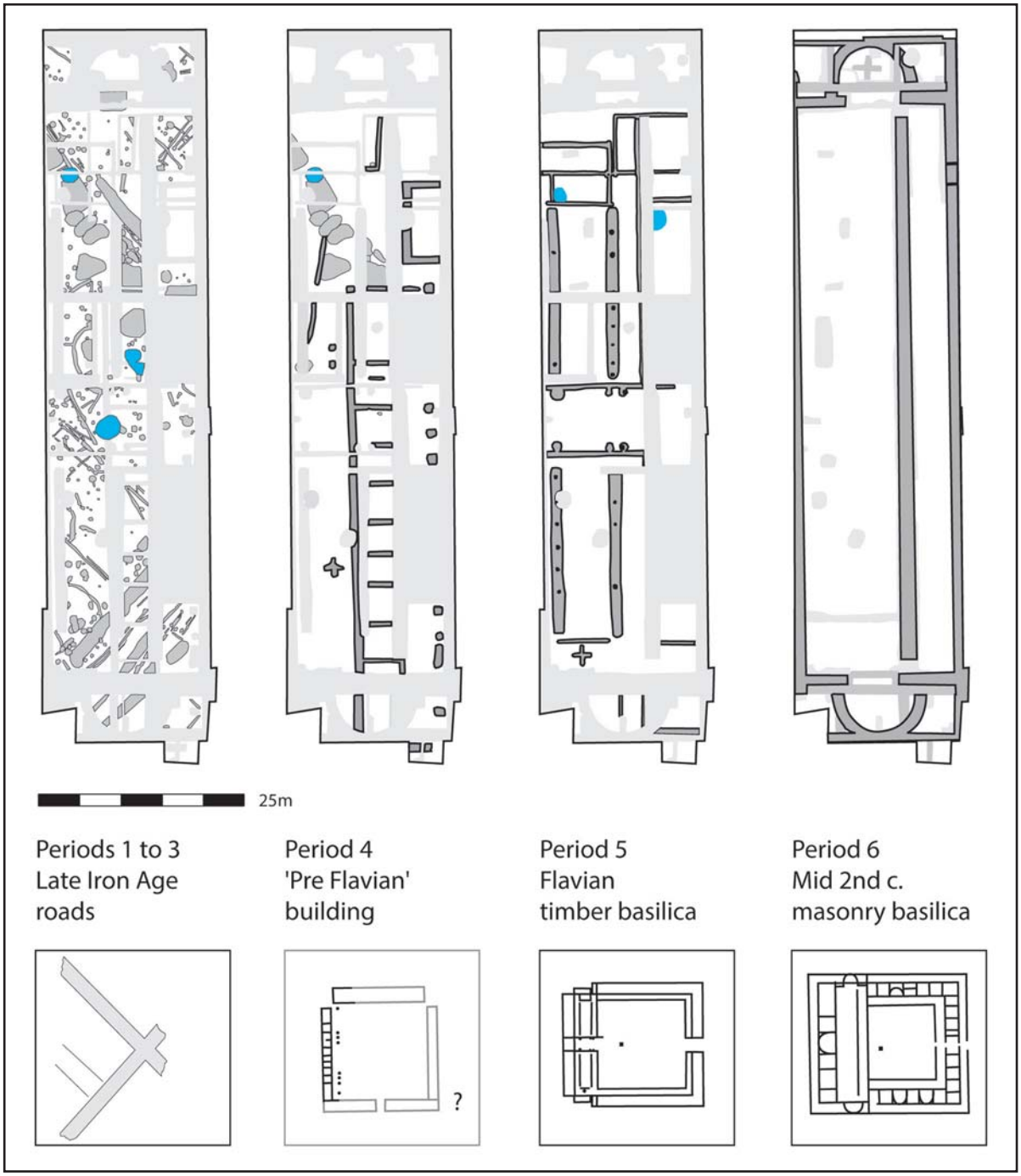

FIG. 5.31. Phasing of Fulford's excavation of the Basilica (1977, 80–6).

Periods 1–3: Later Iron Age occupation, including earlier streets, *c.* 25 B.C.–A.D. 50/60

Description

Fulford divided his early features into three phases. Period 1 (*c.* 25–15 B.C.) showed the traces of what might be three or four roundhouses inferred from curvilinear eaves-gullies. Period 2 (*c.* 15 B.C.–A.D. 40/50) and Period 3 (*c.* A.D. 40–50/60) were dominated by the layout of two slightly metalled streets at an angle of 106.5 degrees (not 90 degrees, see FIG. 11.1), with the area to the west divided into three blocks perpendicular to the road. Within these areas were several possible buildings and wells. Period 3 saw a new palisade protect the entire area from the road; subsequently pits were dug behind the fence-line containing a rich array of imported artefacts

as well as bronze-, silver- and tin-working residue including terret-moulds. This palisade appears to unite the preceding three plots. The road to the south-west was re-metalled after the palisade was constructed. Across the area a 0.05–0.10 m-thick layer of dark earth associated with the Iron Age deposits formed, and there is the possibility of the development of a turf-line over this and the road before Period 4 in the southern area of the excavation.

Period 4: two timber buildings, *terminus post quem*: Tiberio-Claudian

Description

Two ranges of timber buildings were built set on a cardinal alignment. The west range (building 2) was a cellular structure of ten rooms fronted by a portico. The partial evidence for the north range (Building 1) has been suggested to show a more substantial structure, but the sections of its foundation trenches (F623 and 560) are little different to those of the main west range (e.g. F591) (0.7 m wide and 0.9 m deep vs. 0.5 m wide and 0.9 m deep). The construction trenches of the west range show signs of a re-cut. Once the building was built, the Periods 1–3 Iron Age pits behind it continued to accumulate material within them. It is to be noted that the west range is not axially aligned on the east–west road heading to the temples in Insula XXX.

Dating

The initial report suggested a Neronian date (Fulford 1985b, 45), but a major rebuild and re-cutting of the construction trenches meant that the Neronian *terminus post quem* could only relate to this activity and not the original building. However, the structure did seal pits which included Tiberio-Claudian material and this provides the only confident *terminus post quem*. A date in the 40s is likely, while the absence of sealed Claudio-Neronian pottery present elsewhere would make a later date unlikely. Fulford acknowledged the possibility of a pre-A.D. 43 date, and was careful not to rule it out, acknowledging a construction under Epaticcus or Caratacus was possible, but he preferred to see it as post-conquest (Fulford and Timby 2000, 566; Fulford 2003, 98; Creighton 2006, 64–7).

Interpretation

A number of possible interpretations have been provided for this building. Early on it was imagined as a military *principia* building, though the final report settled on seeing it as a proto-Forum. This is discussed in detail below (pp. 358–62).

The oyster deposit

A massive oyster deposit underlying the Forum existed in the south-east corner, originally leading Joyce to interpret one of the rooms as an oyster bar. The scale of the deposit was evocatively described by him: 'Here deep in the floor everywhere, outside it in the ambulatory, and extending from it up to the very corner of the exterior wall of that side, is a great bed of oyster-shells underneath the level. It is the accumulation one would suppose of many generations of deceased oysters, and must be seen to be fully credited' (Joyce 1881b, 355). It is unclear how early in date this was in relation to Periods 1–4.

Period 5: Flavian timber Forum-Basilica

Description and dating

The Period 4 ranges were replaced by a large timber hall with nave flanked by aisles, bisected by a cross feature interpreted as an entranceway providing access into the Forum. This central feature was axially aligned with the east–west road leading to the temples in Insula XXX. Its final demolition appears to have been planned, with no burning amongst the debris; and with the colonnade foundation of the masonry successor running hard-up against the inside face of

the north wall, it is likely this was a very well planned staged upgrading. The wall-plaster found in the demolition layers suggests the interior was largely plain with decoration reserved for the northern and southern ends. A slightly-worn to worn coin of Vespasian A.D. 77–8 provides a *terminus post quem*. A construction period spanning A.D. 80–5 or 80–90 was argued for.

Interpretation

This has almost universally been accepted as a Forum-Basilica on the basis of its co-location with the later masonry Forum. Architectural reconstructions have been undertaken by Sunter (Fulford and Timby 2000, 535–8), with an alternative by de la Bédoyère (1991, 85). However, Esmonde Cleary (2001) queried this interpretation as the basilica seemed to have a cross-hall passing through the middle of it, which had caused problems in Sunter's reconstruction. Instead he viewed it as being one large basilican hall, rather than a passage with two basilican reception-rooms going off it to the north and south. He has drawn attention to various other early aisled halls in high-status buildings, such as at Fishbourne (north-east corner) and the two in the 'legate's palace' at Xanten. Without knowing the rest of the plan the interpretation as a timber basilica-forum rather than a large private residence cannot be taken as a given, but it is still quite likely.

Period 6: Hadrianic-Antonine masonry basilica

Description and dating

The basilica was rebuilt in stone. It had columns around 9 m high with ornate Corinthian capitals. At either end of the hall were raised apses where the magistrates could sit and dispense justice. In the middle was another apsidal room originally referred to as the *curia*, though as Frere observed it was too small to house a nominal *ordo* of 100. He imagined it as a shrine for the deity of the *civitas*. The Forum itself was approximately square with internal and external porticoes. Construction in the Hadrianic period with perhaps some revisions down to the early Antonine period (A.D. 150) was suggested. A *Legio XX* stamped tile was allegedly found at Silchester which Warry associated with the Hadrianic re-building of the Forum (Warry 2010, 143).

The eastern entrance to the Forum contained a major arch, demonstrated by the significant additional foundations found for it. This was not, however, quite in the centre, but shifted *c.* 1.5 m to the south to align the entrance with the east–west street in front of the building, which ran at a slight angle (Fox and St John Hope 1893a, 542–3). This curious lack of symmetry and the slight misorientation of the entire Period 6 Forum-Basilica and this road are notable features in the layout of the town (Boon 1974, 92–6, 108–20).

Function of rooms within the Forum was attributed by Joyce on the basis of the finds. In one he observed recesses in the wall which he took to serve as receptacles for strong-boxes; this together with all the coins found there led him to conclude they were the *tabernae argentariae* (Joyce 1881b, 353–5). Butcher's shops were identified by the number of hooks, and another was identified for game (curiously containing four dog skulls buried under the floor). Next to this was the 'favourite luncheon bar of the Forum' serving oysters (misunderstanding that this was actually an earlier pre-Forum deposit). Other rooms were given functions such as offices for the aedile, quaestor, *vectigalia*; and the *Collegium sacerdotum* (Joyce 1881b, 358, pl. XVI). The Antiquaries were rightly more cautious about such identifications, as was Boon (Fox and St John Hope 1893a, 547; Boon 1974, 111).

Reconstructions

Decorative stonework from the Period 6 Forum-Basilica was not only found in this insula, but also in adjoining ones. From Insula I came a shaft of a column (0.56 m diameter; 0.2 m high), and close to that a stone carved with foliage and some fine marble, possibly Campan Vert from the Pyrenees (Fox 1892, 265). From Insula XXXV came fragments of two pieces of Doric capital which judging by their size were thought to come from the Forum (St John Hope 1908, 207). The Corinthian capitals and others have been discussed extensively (St John Hope 1909a,

474; Fox and St John Hope 1893a, 541, 559, 569); including their association with Rhenish masons (Liversidge 1968, 39, 41; Boon 1974, 108 n. 3); setting them in their national context (Blagg 1976, 152, 162, 165, 171; 1977; 2002, 22–5, 139, 256–60; Cunliffe and Fulford 1982, fig. 84); parallels to Form C capitals from Caerwent and Cirencester (Blagg 1979, 102; Kähler 1939). New stonework from the basilica excavation was reported on by Wooders (Fulford and Timby 2000, 90–100).

Many reconstructions have been created of the Period 6 complex over the years: Fox and St John Hope (1893a, 540–59); Liversidge (1968, 38); Boon (1974, 112–16, 208, 213); de la Bédoyère (1991, 90); with Sunter providing the most comprehensive view (Fulford and Timby 2000, 538–43).

Period 7: Late Roman occupation of the basilica

Description

There were a large number of negative features, including one well which may have been later second century; many of the later pits contained traces of metal-working. It was envisaged that the absence of later second- and third-century features related to there having been solid flooring such as Purbeck marble, which had subsequently been robbed in the Late Roman period. Occupation continued perhaps into the fifth century. The late occupation and industrial use of basilicas is discussed in a national context in Rogers (2010, 70–2; 2011, 135, 142).

The interior of the Forum square

This revealed nothing. 'Trenches were sunk from wall to wall, running east–west, and these were in every case dug quite down to the natural gravel beneath. These trenches were then intersected by others from north to south, dividing the whole into little squares. The work proved more barren of result than any other that has been attempted at Silchester' (Joyce 1881b, 352). The area was partly excavated again by the Antiquaries, though little was found. The square appeared to comprise a 0.6 m depth of gravel on a mortar base. No remains of gutter stones or other features were found (Fox and St John Hope 1893a, 544). However, the large expanse of compacted gravel and the large roof-space necessitated significant drainage, which was provided by a drain *c.* 0.38–0.44 m wide and 1.04 m deep, taking water out eastwards through the main entrance (Fox and St John Hope 1893a, 545). This flowed into a trench 0.6 m wide and *c.* 0.6 m deep down the street to the east.

In theory part of the Period 4 north range timber building should have been found within the square, but it either lay sealed by the gravel, or the projected reconstruction is inaccurate, or Joyce and the Antiquaries simply did not recognise it. There were only two features within the square: a pit or well in the north-east angle, *c.* 4.6 m deep, containing pottery, a stylus and bones, principally of dog with sheep and pig (Fox and St John Hope 1893a, 544); and near the centre a single pit, also 4.6 m deep, containing two cattle jaw bones.

INSULA IV: 'THE CHURCH'

History of excavations

The building was first discovered on 10 May 1892 and claimed as a small basilican church the following year by Fox and St John Hope (1893a, 565). In 1953 Toynbee pointed out the lack of conclusive evidence for this interpretation (Toynbee 1953), so Boon proposed re-excavation in 1959. This took place in 1961 directed by Boon and Richmond, though Boon withdrew early on. An interim note of the works was published by Richmond (1962, 185–6), but he unfortunately died before the site was written up, leaving drawings but no text. Boon published a 'provisional and personal' account of the work in his Silchester volume (Boon 1974, 32, 173–84), but it was Frere who finally wrote up the site, based on: one field note-book by Miss Wilson, Cotton's recollections, the *Journal of Roman Studies* interim account, and his own recollection of Richmond's lecture to the Society of Antiquaries (Frere 1976).

Description

The building had a long central, red-tessellated 'nave' (8.9 x 3.1 m, 0.6 m thick), semi-circular at the west end and rectangular at the other. At the western end was a square black and white mosaic panel which at some point had been covered with *opus signinum*. There were narrow rectangular 'aisles' to the north and south, each 1.52 m wide. Both of these widened at their western ends to create a northern and southern portico. The northern portico was partitioned off in wood and then at some point in stone. At the eastern end of the 'nave and aisles' was a 'vestibule', 7.4 x 2.1 m, with a red-tessellated area at its northern end with a 0.7 m diameter hole in it. This description is based on Fox and St John Hope (1893a), Frere (1976) and King (1983); the mosaic is No. 321.16 in Neal and Cosh (2009, 200). Ford attempted a reconstruction of the architectural detail (Ford 1994).

The 'church' sat within a large open gravelled area. To the east of the building was a 3.5 m square flint foundation with a square trough within it 'on which doubtless stood the fountain, and a small pit in front of this seems to have been made to carry off the water. Close to the opposite or western end of the church is a large well carefully lined with wood, but no remains of a baptistery have yet been uncovered' (St John Hope 1892). Upon re-excavation by Richmond, the pit ended up being 0.5 m wide and 1.0 m deep, and was subsequently suggested to be the base of a baptismal font; and thereafter a baptistery of slight construction was imagined to have occupied the vicinity.

To the south was a 18.3 m long row of holes set about 1.4 m apart, with flints laid round them as if to steady posts. Since they were not parallel to the 'church' they were thought to post-date it. Little or any of this shows in the geophysics.

Subsequent discussion – was it a church?

Even when the Society of Antiquaries set out upon their excavations, one of their original hopes was to find evidence for Christianity; a quotation from the original plea to set up the project states: 'If *Calleva*, as to some would seem likely, had a continuous existence down to and even beyond the date of the withdrawal of the Roman government from this island, there might be some chance of discovering the remains of buildings dedicated to Christian rites' (Fox and St John Hope 1889–91, 91). In 1892 that expectation was apparently fulfilled (St John Hope 1892).

St John Hope's interpretation of the building was unequivocal. 'From a comparison of the plan and surroundings with those of a similar character in Italy and other parts of the Roman Empire, there seems to be little, if any, doubt that we have here a small church of the basilican type' (Fox and St John Hope 1893a, 565). However, even then they recognised that the lack of distinctive Christian iconography meant the identification would be questioned by some (Fox and St John Hope 1893a, 567). News of the find was made public early on and led to many visitors and local discussion (St John Hope 1892; Presbyter 1892).

Some clergymen were immediately persuaded. The Revd G. Minns concluded there was much evidence to support its identification as a church (Minns 1890–3). Another visitor, Mr Herbert Jones, was so taken by it he reproduced the small mosaic pavement in the building within the Church of All Saints, Blackheath (Anon. 1893b). In an article about another pre-Norman church, Erwood drew uncritically on Silchester as a parallel for a Christian building and baptistery (Elliston Erwood 1921, 224). Others were more sceptical cautioning against the parallel (Allcroft 1923; 1924, 201–3; St John Hope 1893a).

While the identification became firmly established in narratives of Roman Britain (Haverfield 1924, 206–8; Collingwood 1922, 95; Collingwood and Myres 1936, 272), Toynbee's survey of early evidence for Christianity in Britain was more hesitant citing comparable plans of temples to other deities (Toynbee 1953, 9). Lewis was similarly cautious in his survey of temples (Lewis 1966, 109). The building was re-excavated in 1961 to obtain better stratigraphic and dating material (Richmond 1962, 185–6; Boon 1974, 173–84; Frere 1976), with Frere again concluding on the balance of probability that it should be considered as a Christian church; contemporary syntheses reflected that (Liversidge 1968, 458–9). For Boon, after having expressed earlier reservations, it was the presence of the transept that clinched the identification of the building

as a church (Boon 1957, 130; 1974, 175). While some fears were allayed, subsequent syntheses accepted the identification, but had qualms about the dating (Wacher 1978, 237; Thomas 1981, 214–16). The evidence was examined in detail by King (1983) who reviewed the dating evidence (a mid-third-century *terminus post quem*) and the range of potential parallels. He concluded that while it possibly was a church, the early date made that unlikely unless the dating evidence was entirely residual. Other eastern cults were also contenders, but no matches were perfect. From a different angle Neal and Cosh considered the mosaic to be stylistically late second century, which would make the church interpretation untenable, but they too did not totally rule out that it could be fourth century (Cosh 2004; Neal and Cosh 2009, 199). This has led more recent syntheses to equivocate over the identification (de la Bédoyère 1991, 196; Millett 1995, 119; Casey 2002, 94; Mattingly 2006, 348), while others have continued to dismiss the critique (e.g. Frend 1992, 124), or appear to be unaware of it (Irby-Massie 1999, 198).

NOTABLE FINDS FROM INSULA IV

Two chip-carved table slabs came from the Forum, one in Bath stone and one in Purbeck marble (Fox ND, box 4, sheets 37 and 67; Solley 1979; Boon 1974, 116, 323 n. 28). From the northern Basilica apse came a bronze furniture fitting with a lion's head in relief (Fox and St John Hope 1893a, 557–8).

Along with the usual array of brooches, rings and keys, many miniature items were found, which the Antiquaries interpreted as children's playthings. These included 'a tiny bear, a spread eagle, a gamecock, a quaint rocking-horse 4 inches long, a toy anchor, a very infantine gridiron, and securiculae or small axes'. Other finds included ten fragments from six pewter moulds from the Forum (Fox ND, box 4, sheet 64; Bush 1909; Goodall 1972; Boon 1974, 274; Blagg and Read 1977); a bronze statuette from just north of the Forum (Fox and St John Hope 1893a, 561; Hutchinson 1986, 208; Durham 2011, no. 62); and from Room 25 Joyce found a lead seal with a Chi-Rho monogram, inscribed [P]MC (Boon 1974, 183; Frere *et al.* 1989, 345; Mawer 1995, 94); for a wider contextual discussion (Pearce 2008, 201).

Some fragments of human skull were found near the south-east corner of the Forum on the upper surface of the gravel by the Antiquaries; Joyce had also found several skulls.

INTERIOR 10: INSULAE V, VI, XXVIII, XXIX, XXXI AND XXXIV (FIGS 5.32–34)

HISTORY OF INTERVENTIONS

1873–4	House XXXIV.1 excavated as 'Block VI' by Joyce (Hilton Price 1887, 2).
1892	Excavation of Insula V west of fence-line (Fox and St John Hope 1893a, 569).
1892	Excavation of Insula VI west of fence-line (Fox and St John Hope 1893a, 569–70).
1901	Excavation of Insula XXVIII north of track (St John Hope 1902, 29).
1902	Excavation of Insula XXVIII south of track, east part (St John Hope 1903a, 420–1).
1902	Excavation of Insula XXIX south of track, west part (St John Hope 1903a, 420).
1905	Excavation of Insula V east of fence-line (St John Hope 1906, 149–54).
1905	Excavation of Insula VI east of fence-line (St John Hope 1906, 154–61).
1906	Excavation of Insula XXXIV and XXXI west of brook (St John Hope 1907a).
1907	Excavation of Insula XXVIII south of track, west part (St John Hope 1908, 199–202).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

'Block VI': local society visit (Anon. 1872–80); a lecture (Joyce 1873, 15, 27, mislocating the buildings as being to the south of the forum).

Insulae V and VI: notes (Fox 1899b, 83; Anon. 1906); lectures (Fox and St John Hope 1893b; Fox *et al.* 1893; St John Hope 1907b); society visits (Ditchfield 1905; Anon. 1905, 155).

Insula XXVIII: a lecture (St John Hope 1909b).
Insula XXXIV: lectures (St John Hope 1907c; 1909b); a society visit (Hanbury 1906); a report (St John Hope 1907d); notes (Anon. 1907b, 440; 1908b).

DESCRIPTION

Insula V

Insula V was excavated across two widely separated seasons. Towards the east the depth of overburden was commented on, in places it was as much as 1 m. This largely comprised 'black earth', which also covered much of the rest of the south-west quarter of the town. This depth is probably why the Antiquaries' excavation trenches show so clearly in the geophysics within Insulae V and VI. Apart from the existing buildings, the geophysics did not reveal any new unambiguous structures, though a number of magnetic anomalies exist in the south-east corner. Also a long diagonal linear feature crossed the insula on a south-west to north-east alignment. Since it crossed the street-grid, the presumption is that it either pre-dates the grid or post-dates the demise of the town, though it bears no relation to any known later field divisions.

House V.1 was along the mid-western side of the insula and aligned east–west, perpendicular to the road. There was a portico on the street frontage, with a large room behind, then the building was subdivided behind that. A small column capital was found in the portico in 1892, but was not thought to belong to the building. House V.1 was either demolished or largely remodified as a later wall coming off House V.2 overlies many of the backrooms.

House V.2 was in the south-west corner of the insula. The main building was orientated east–west, with a large hall with two narrow chambers at either end, fronted on the south by a portico. The house had been extended both at the back on the eastern side, and also with the addition of the three-room Block V.II to the east. The Antiquaries considered the large hall to be a yard, and the narrow rooms to the side to be stabling; they wondered if it might not be an inn with Block V.II being a latrine, though both conjectures were based on little primary evidence. Like House V.1, the back extension must have been demolished at some point and replaced by another rectangular structure of which only three sides are known.

House V.3 was situated on the northern side of the insula; it was a row-building with a portico on the south side rather than on the street frontage (later single-corridor type, Berry 1951). It contained mosaics in four of the rooms (Mosaics 321.17–20, Neal and Cosh 2009, 201); see also Boon (1974, raised hearth 194). Just to the south of it lay Block V.III, a solitary single-cell building with an entrance on the east side not shown on the plan; around it were fragments of painted wall-plaster and tiles (Boon 1974, 212). Directly east of the building and its entrance the geophysics show a large pit, and there is also a hint in the geophysics of a sub-rectangular to oval enclosure around the two, though this is so tentative it is not shown as a hard linear in the interpretative plan. The enclosure, if it is genuine, is about 30 x 30 m with the pit just off-centre.

Block V.I was a north–south-aligned block of five rooms with a portico on the street front to the west and a small extension at the back on the northern end in the north-west corner. It is described as a corridor-and-hall-type strip-building by Perring (2002, 60). Within the main hall was a substantive 6.1 x 2.3 m structure with flues which led to this being interpreted as a dyeing-house, with Fox considering that Room 4, which contained a mosaic, could be the dyer's office.

On the line of the street, close to the west wall of Block V.I, lay a square-section tile-and-brick drain running from the street intersection southwards for at least 36.6 m (Fox and St John Hope 1893a, 569).

Insula VI

The drain out of the Forum was traced running down the middle of the street between Insulae V and VI. Here it was excavated, revealing it to be a trench about 0.9 m wide, and varying from 0.3 m deep in the west to 0.15 m in the east.

House VI.1 occupied the north-eastern part of the insula and appears to have been a west-facing winged-corridor building in origin, with a peristyle and eastern range added to the back

(early double-corridor house type, Berry 1951; a two-range courtyard house, Perring 2002, 70). Four mosaics were noted, one in the eastern range having samian tesserae indicative of a second-century date (Mosaics 321.21–24, Neal and Cosh 2009, 202). Of particular note is the presence of a large wood-lined tank, sunk deeper than most of the floor levels in Room 21; and also a human skeleton in a 1.2 m deep grave in Room 17, parallel with the south wall, suggesting it was contemporary rather than earlier in date. Just to the south of the house, and on the same alignment is Block VI.III, a large hall of which three sides are known. See also Boon (1974, skeleton 82, layout 191–2, conduit 368).

House VI.2 stood on the southern side of the insula. It appears to have been a three-row building with a west-facing portico, to which extensions, including a southern range, had been added resulting in an L-shaped building (Mosaics 321.25–26, Neal and Cosh 2009, 202–3). Under House VI.2 were the curious remains of a wooden trough, carrying water south away from a well just to the north; the exact purpose of this arrangement remained a mystery; see also Boon (1974, trough 88, layout 192).

Block VI.I occupied the north-west corner of the insula and was an unusual building. On both edges of the corner were two rows of rooms joining in an L-shape, fronted by a portico on the street-side. This had been extended to the south by a more substantial row of rooms, though this time set further forward and lacking the portico. The building was generally thought to be a range of shops. One set of rooms produced a number of fragments of thin veneers of Egyptian red porphyry, which led the Antiquaries to suggest that a lapidary or marble-worker lived here. Red Imperial porphyry is known from mid-first-century contexts in Colchester and Rivenhall Villa, and later in London (Pritchard 1986, 188). Part of a 12–14-year-old human skull was found in a well in this quarter. It is to be noted that the portico alignment is much straighter than the east–west road leading out of the Forum generally takes. It can also be noticed that the range is overlain by House VI.1. See also Boon (1974, interpretation as shops 55, 188, adaptation to the grid 307, plan 189).

Cattle bone deposit: a massive deposit of cattle bones was found underneath Block VI.I Rooms 7–10, and extending east to House VI.1. It comprised almost entirely lower jaws and a few scapulae. Lyell calculated the area to be about 15.2 by 7.6 by 0.36 m. Since 0.83 m^2 (9 sq. foot) yielded 70 jaws representing 35 oxen, he calculated there might be 4,865 jaws in all, or less if the deposit thinned at the sides, and his final estimate of oxen represented was 2,520. The Antiquaries sought a utilitarian explanation, wondering if the thinner part of the jaws perhaps could be used for making buttons, though no evidence for this was cited, while Boon related the deposit to leather-making (St John Hope 1906, 156, 165–7; Boon 1974, 90, 290; Fulford 2001, 207).

Block VI.II was in the south-west corner, but no great sense was made of the fragmentary set of walls. The geophysics hint at a continuing range of shops with a rear extension.

Insula XXVIII

Insula XXVIII was excavated over a large number of seasons, and was bisected by the modern droveway. The Antiquaries could observe no definite trace of a road on the eastern side, nor could one be found on aerial photographic records (Bewley and Fulford 1996), nor did the geophysics show any unambiguous evidence. The eastern side appears to directly relate to the ditch of the Inner Earthwork.

House XXVIII.1 (called House 2 on the second season's plan) was believed to be the earlier of the two houses in this area. It was a six-room row-building with a portico on the southern side. It was not quite aligned with the street-grid and set back from it, though linked to it by a couple of larger rooms or enclosures.

House XXVIII.2 (called House 1 on the second season's plan). The building had two simple ranges, a row of five rooms at right-angles to a corridor linking up to the street frontage. The two framed a courtyard completed by House XXVIII.1 on the eastern side. On the street is a possible range of shops and a square building which Boon thought might be a shrine (Boon 1974, 160, 188–90). The geophysics show the building also had two additional rows of rooms added to it to the north, extending up to and under the modern droveway.

House XXVIII.3 was situated in the north-west of the insula. The northern wall of the block

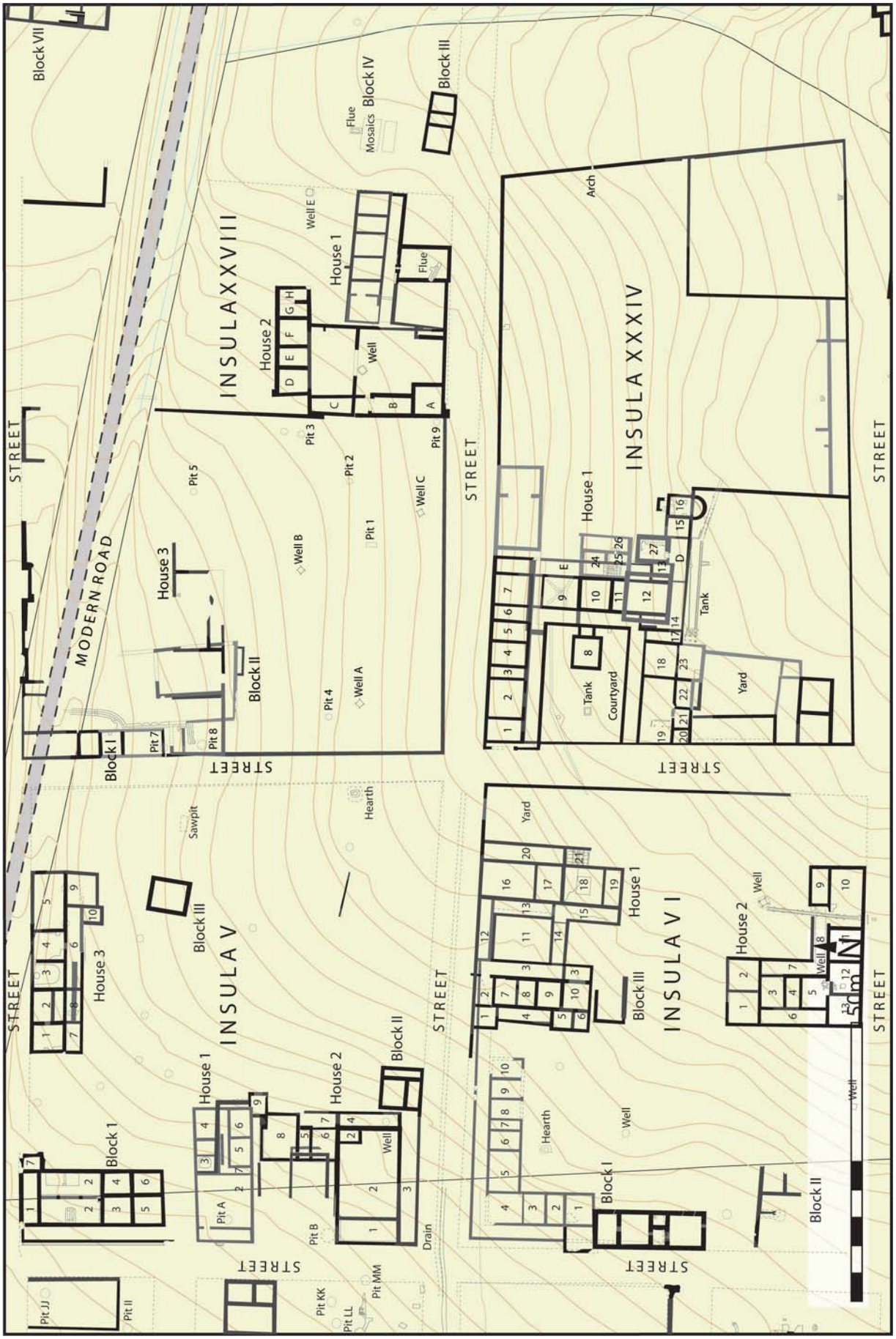

FIG. 5.32. Interior 10 – Antiquaries' plans and modern topography.

FIG. 5.33. Interior 10 – fluxgate gradiometry image (± 7 nT).

FIG. 5.34. Interior 10 – interpretative plan.

had a large gateway suggesting there would be a grand house, but only ephemeral traces were found, which the Antiquaries thought suggestive of an east–west-aligned house with a corridor on the southern side. All sorts of other configurations are possible if Blocks XXVIII.I and II are part of the same complex. However, the Antiquaries considered Block XXVIII.I to be a separate range of shops, and Block XXVIII.II to be a later structure altogether, though the two blocks appear to be contemporary as they formed the sides of a stone-drain which ended up in a sump in the south-west corner of the complex. No purpose was identified for the building.

It is possible that there was another building between House XXVIII.3 and House XXVIII.1. The geophysics show a number of magnetically enhanced areas which could be room-fills, though no clear walls appear.

Insulae XXIX and XXXI

These insulae straddle Interior Sheets 10 and 11. The only buildings on this Sheet are two blocks in the south-west corner of Insula XXIX. These are described with the rest of the insula under Interior Sheet 11.

Insula XXXIV

Insula XXXIV supposedly contained within it the site of a 'Roman fountain'. This appeared in the south-east part of the insula on plans from Wright's onwards; on his a letter 'M' was said to show where some 'stones, with which this fountain was inclosed, are still to be seen' (Ward 1748, 609). It is difficult to make a correlation between Wright's plan and either the bathhouse or any other building, and once the Antiquaries excavated the area the fountain was quietly dropped off later maps.

Joyce was the first to excavate here, digging 'Block VI' to reveal part of what became the northern range of House XXXIV.1, though few details came through to publication (Hilton Price 1887); Fox and St John Hope, however, drew from his diary entries in their report. One of the mosaics was removed to adorn Stratfield Saye (Joyce 1881a, 336).

The insula is occupied by one large walled enclosure containing a single house. On its eastern side, close to the brook, the Antiquaries came across no signs of a road. None was visible from the aerial photographs (Bewley and Fulford 1996), and the geophysics reveal that this side was marked by the Inner Earthwork ditch, the signal of which dominates so could potentially be masking signs of a road. So, *prima facie*, the road does not appear to exist on this side of Insula XXXIV.

That the Inner Earthwork ditch in this section seems to define the edge of the insula suggests it had a longer history than the stretch of the ditch in the northern part of the town, which is clearly overlain by the street-grid and which Boon's excavation demonstrated had been filled in by the Claudio-Neronian period. The ditch may have been open to promote drainage in this area below the spring, which today can still get a bit boggy. Just to the south, around the Public Baths, wooden piles were used in a number of places to firm-up the soft ground. The Antiquaries also continually referred to the open area of the insula as 'boggy'.

House XXXIV.1 took up the western half of the walled insula. It probably originated as a north–south range which was added to by two wings projecting westwards to create the courtyard, all unified by a portico on the interior and a wall to the west. A small room projected into the courtyard which was suggested to be a *lararium*.

Extending to the east and south were other buildings and enclosed areas interpreted as workrooms and yards. A fourth-century date was suggested for one of the mosaics (321.103–104, Neal and Cosh 2009, 237–8). From the excavation came several hollow voussoir tiles (later *cuneatus*), curved box-flue tiles from a free-standing vaulted roof structure and a large monolithic threshold stone (St John Hope 1907a, 442; Boon 1974, 112, 197, 128, 160, 204; Brodribb 1979, 148; Perring 2002, 121). Also, in 1973 a brick-stamp was found in the field reading [IVC] DIGNI (Goodburn *et al.* 1976, 384).

The building appeared to incorporate the remains of an earlier timber structure which had

burnt down. Various upright posts on a fractionally different alignment were found within the wall dividing Rooms 18–19 from 20–23; beneath the floor remains of various charred joists were found.

An underground water-course fed House XXXIV.1 from the other side of the road, seeming to originate in the sunken wood-lined Room 21 of House VI.1. Originally this water-course was protected by wooden side-planking, and was 0.15 m wide. After crossing the road it passed obliquely through the courtyard of House XXXIV.1, where it fed a sunken water-butt, and continued up to the northern range, where it was now 0.88 m wide, and under the building to the open air on the eastern side, where it simply ended. As it passed through the house it was thought to be an open trough. No obvious function could be determined for it. Another large trough to the south of the house was imagined as being for steeping; this drained off to the east into the open area. To the east of this were found a number of horse and ox skulls without their lower jaw bone, so thought to relate to hides ready to be steeped before tanning, though the Antiquaries stated 'no trace … of tan or tan-pits could be found in the boggy ground to the south and south-east'. However, several large magnetic anomalies do exist in the north-central area of the large yard which comprises most of the insula. Boon concurred with the tanning interpretation, though also wondered if the narrow building which fills the south side of the western yard might not be a pigsty (Boon 1974, 260–1).

While House XXXIV.1 showed poorly in the geophysics, a cluster of strong major anomalies showed on the northern side towards the east, potentially being the results of a series of room-fills from an unidentified building in the north-eastern quarter.

See also Boon (1974, mosaics 73, 214, 216, wide entrance from the street 192, strong-room 200, wooden conduit 368).

NOTABLE FINDS

From either Insulae V or VI came a 'short length of fine gold chain, part of a figure of Venus in white clay, portions of some large trays of Kimmeridge shale, and a fragment of a small white marble statuette'.

Finds from Insula V included a large mortar, a 'curious little object carved in chalk', several good specimens of glass and a quantity of plum and cherry stones. Architectural elements included an unfinished winged altar and an unfinished stone figure of a couchant lion (St John Hope 1906, figs 2–3).

INTERIOR 11: INSULAE XXIX, XXX, XXXI, XXXII AND XXXVII (FIGS 5.35–37)

HISTORY OF INTERVENTIONS

1890	Insula XXX (Fox and St John Hope 1890, 744–9).
1893	Insulae XXXVII and a building within XXX (Fox and St John Hope 1894, 237).
1896	House XXXII.3: churchyard southern extension (St John Hope 1897a, 428–30).
1902	Insula XXX excavation within barn and northern area (St John Hope 1903a, 413–15).
1902	Excavation of Insula XXIX south of droveway (St John Hope 1903a, 415, 420).
1902	Excavation of Insula XXXI east of stream (St John Hope 1903a, 416–17).
1902	Excavation of Insula XXXII east of stream (St John Hope 1903a, 417–19).
1908	Excavation of Insula XXIX north of the droveway (St John Hope 1909a, 476–9).
1980	Insula XXX excavation prior to development (Fulford 1984, 26, 37–41).
1995	Insula XXX excavation prior to putting down solid flooring in the Barn.
2004	Insula XXX excavation of porch of Old Manor House.
2005/7	Insula XXX/XXXII excavation prior to an extension to the Church.

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Antiquaries: a note (Fox 1899b, 81), lectures (Fox and St John Hope 1891a; Fox and St John Hope 1891b; St John Hope 1903c; 1909c).
Fulford's 1980 excavation: an interim note (Grew *et al.* 1981, 362).

DESCRIPTION

The insulae are described from north to south.

Insula XXIX

Insula XXIX straddled the modern droveway and Interior Sheets 10 and 11, but is for convenience all described here.

Roads: the various alignments of roads caused much confusion as they gradually emerged. The Great Plan showed two roads of different periods running towards the East Gate with the main east–west road providing the northern edge to Insula XXIX. An original street, perpendicular to the gate, was initially hypothesised and trenches dug to see if there was a counterpart to the northern boundary wall of Insula XXX on the northern side of XXIX. 'No such wall, however, could be found, and a continuous sheet of gravel underlying the top soil made it impossible even to define the roadway which must have existed here. Further trenching revealed another disturbing factor in the shape of three detached buildings, each of which overlay the assumed course of the main road' (Blocks XXIX.V–VII, St John Hope 1909a, 476). Since neither they, nor the aerial photography (Bewley and Fulford 1996) nor the geophysics provide evidence for this road, it must be considered highly speculative, even though a road along the northern edge of the Temple *temenos* does not seem improbable. It could, however, be that the Antiquaries simply missed it, just as they did the street between Insulae XXXVI and XXXVII. Here again they just saw a sheet of gravel but no road. The line which they thought to be the later link between the east–west street and the East Gate they revealed in trenching in 1908, calling it unmistakeable 'owing to its gravel layers being somewhat raised above the general surface' (St John Hope 1909a, 484).

House XXIX.1 was a small L-shaped building with a portico joining the two wings on the southern and western sides (Boon 1974, 192). It is just possible that Block XXIX.I made up a western range of this structure to enclose a courtyard.

Block XXIX.II lay parallel to Block XXIX.I and to the west of it. There was no speculation about its function, though it too could have formed part of an unrecognised western range to House XXIX.1.

Block XXIX.III was on the far western edge of the insula and was a row of three small rooms, one of which had been added, on the street corner; while Block XXIX.IV lay just north of this and was only revealed by the remains of two mosaic floors (both are shown on Interior Sheet 10).

Block XXIX.V lay both on the hypothesised earlier road-line linking the main east–west road with the East Gate, and on an interpolated north–south road, but was aligned to neither of them. It was a single chamber with walls continuing south suggesting there was once more to it. A square pit within it which notionally should have been under the hypothesised road-line did not lead to any comments about rammed packed gravel.

Block XXIX.VI lay just to the west of Block XXIX.V, again on the projected road-line. It was a larger rectangular building perpendicular to the curved street, with two smaller rooms at the southern rear, one of which was heated. The Antiquaries considered the larger room might have been an open yard.

Block XXIX.VII lay just to the west of Block XXIX.VI, again on the projected road-line. This was a tripartite rectangular house gable-end-on to the main east–west road, with which it is more or less aligned. Boon wondered if it might be a restaurant (Boon 1974, 188). Within it was found a small Constantinian coin hoard (Hoard 1231, Robertson 2001).

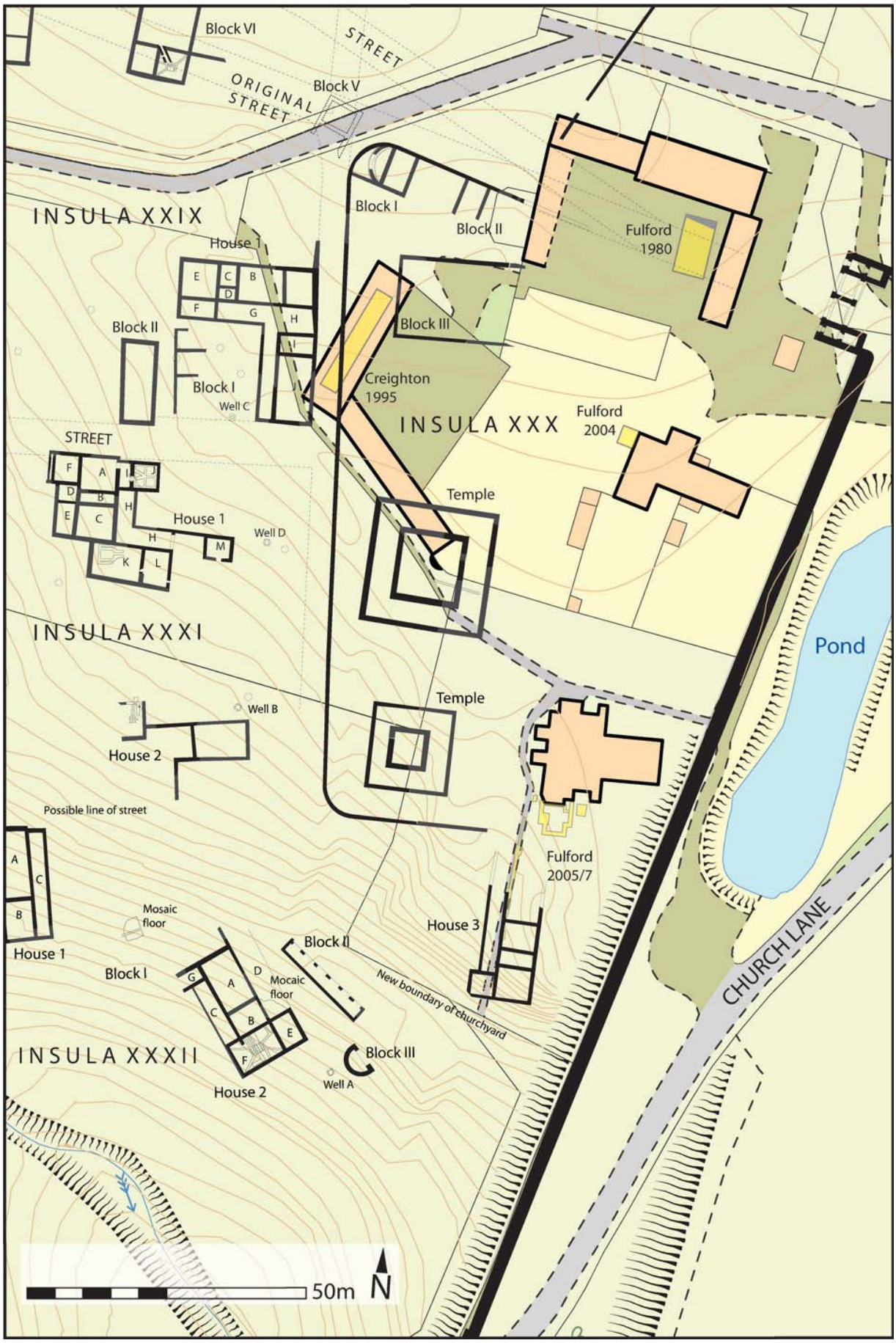

FIG. 5.35. Interior 11 – Antiquaries' plans and modern topography.

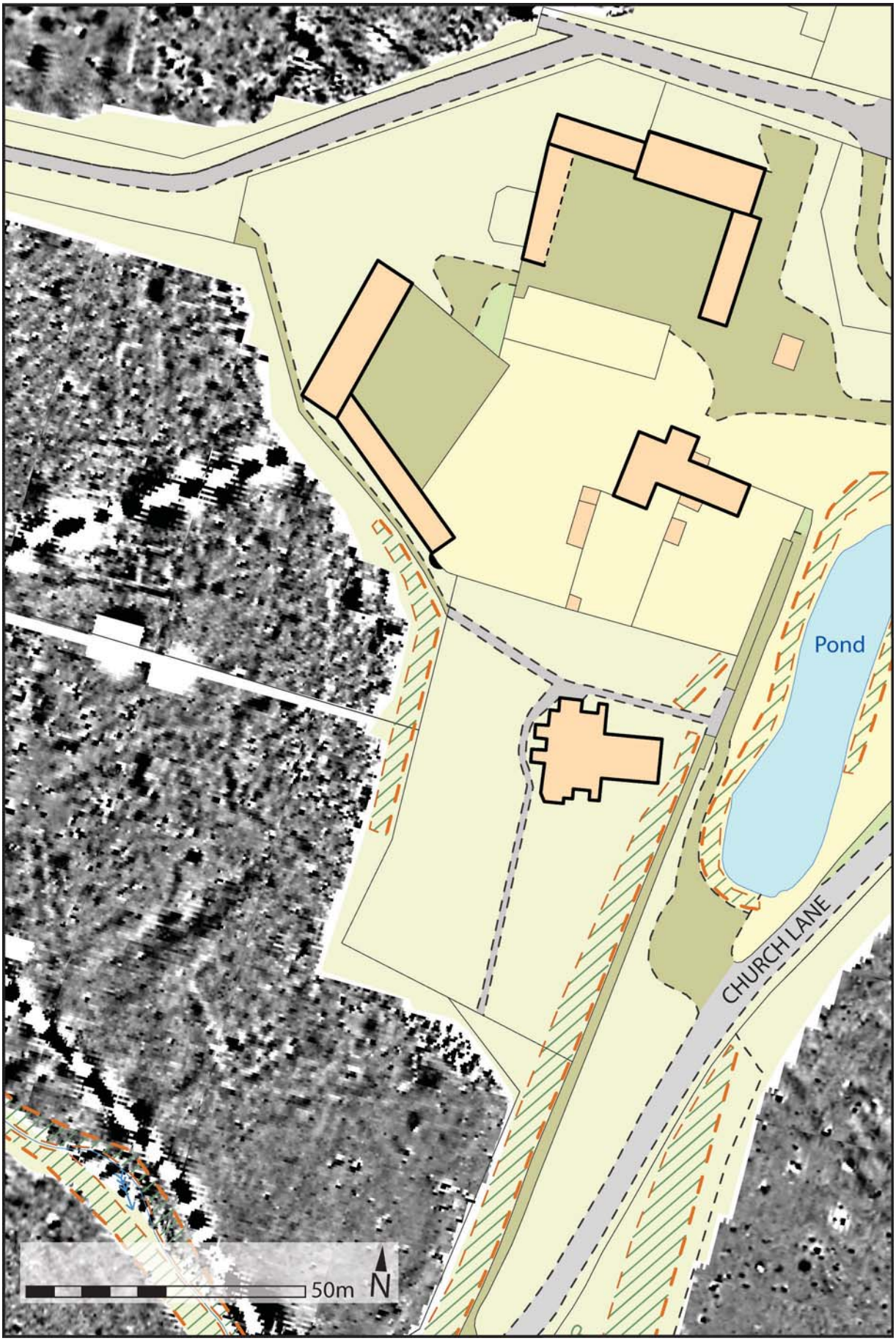

FIG. 5.36. Interior 11 – fluxgate gradiometry image (± 7 nT).

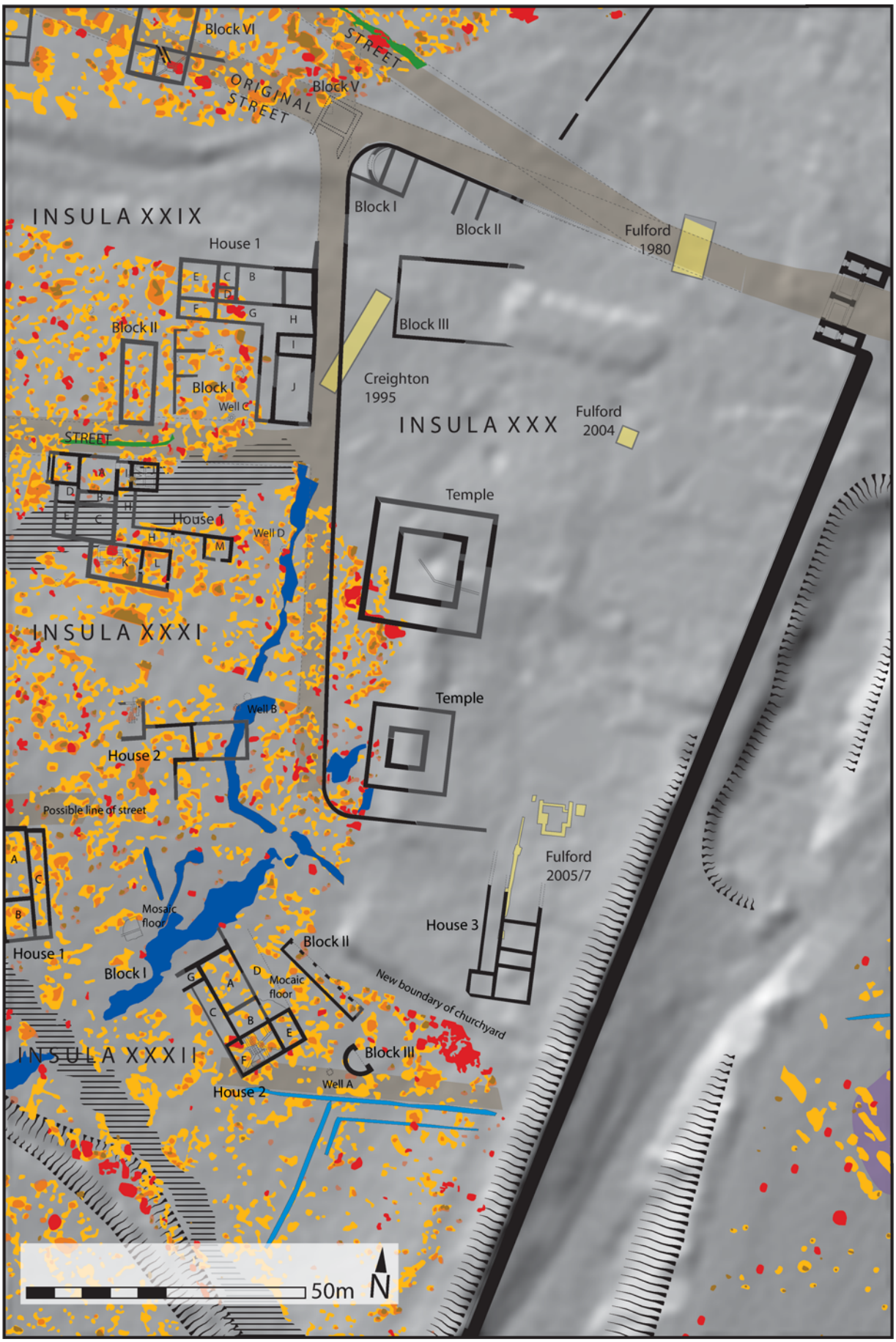

FIG. 5.37. Interior 11 – interpretative plan.

Insula XXXVII

Insula XXXVII straddles both Interior Sheets 11 and 7 since the main east–west road bent to the south-west. An opportunity arose in 1980 to excavate amongst the former farm buildings where a swimming-pool was being constructed. This was a 10.5 by 5.5 m opening on the line of the main road, though there was little sign of this as the ground level had been truncated in modern times. The earliest feature was a truncated sub-rectangular pit, *c.* 1.0 x 0.9 m, the main fill of which was Claudio-Neronian rather than pre-conquest. The other significant find was a major ditch positioned as if it ran along the northern side of where the road should have been. It was 4.2 m at its deepest (though a full section was not achieved), with a *terminus post quem* of around A.D. 75 from the primary silts; a palisade trench was cut along its edge after A.D. 90/100; the ditch was filled in by A.D. 150 or a little earlier

The most obvious explanation of this feature was as a roadside ditch, but that interpretation was not unproblematic. Fulford discounted it for a number of reasons: first because it was so deep; secondly because it was so early, and in his concept of the development of Silchester the road heading east out of the Forum should originally have cut right through the temple enclosure joining with the road to London, and only later was the temple area enclosed and the road diverted to the north. This early ditch would therefore have conflicted with this hypothesis (Fulford 1999, 164). He also dismissed the idea it might be an early *temenos* boundary as in that case it should have been on the southern side of the road (if the road was early). He concluded it must be part of an early defensive work, though extrapolating the feature in both directions showed nothing it might be a part of. I would suspect it was part of the early *temenos* enclosure subsequently realigned and built of stone.

Insula XXX

During 1890, the very first season of the Society of Antiquaries' excavations, grave-diggers in St Mary the Virgin's churchyard uncovered substantial buildings which turned out, after a little investigation, to be two Romano-Celtic temples (St John Hope 1890a). They lay within a very irregularly shaped *temenos* which was only resolved in 1902 when the northern curved angle of the enclosure was revealed to be heading directly back to the East Gate and the road to London. At times a direct line from the Forum entrance, along the road through Insula XXX and down the London Road eastwards, has been conceptualised then rejected. Fox (1948, 174) thought that the presence of the *temenos* would have prevented such a direct line ever existing. Boon (1974, 55) imagined the original plan had meant the road should have passed through the *temenos*, but that it did not in fact do so. Fulford (1999, 164), in contrast, imagined the original road had actually existed and gone through the *temenos*, but as the town grew, along with traffic levels, the traffic was diverted north to what became the main east–west street, and this was fossilised in the later town gate. All that can be said with certainty is that no direct evidence for such a stretch of road has yet been found.

The *temenos* wall was well built of flint with continuous bonding courses of tiles. It was 0.6 m thick where recorded by the Antiquaries and this was confirmed in an evaluation within the barn in 1995. There were no signs of entrance ways along its entire length, nor of cross walls of other buildings.

The Northern Temple was the largest Romano-Celtic temple in Britain when Lewis conducted his survey (Silchester 1, Lewis 1966, 3, 12–29; Smith 2001, 205). It is 22.3 m square, 2.3 m high, within which is a 12.8 m square *cella* (11.0 m square internally). The outer walls were 0.9 m thick on strong foundations of flint and concrete, although some parts of the above walls were of a much lesser quality, as if it had been rebuilt (and the rebuild did not contain tile courses). It was externally plastered in bright red. Despite this, it is doubtful that it significantly towered above the town. The *cella* walls of Autun's 'Temple of Janus', one of the best still standing, are 2.1 m rather than 0.9 m thick, though it is about 50 per cent larger again in plan.

The ambulatory was almost 4.0 m wide and filled in with sandy clay and loam; this was capped with a 0.05 m thick layer of *opus signinum*, based on a hard pink cement. This flooring was 2.3 m above the original ground surface. The *cella* had a flooring at the same elevated level, but of

a curious composition: 'This was about [0.13 m] thick and consisted (1) of a hard concrete of lime with lumps of brick, upon which was (2) finer layer [0.05 m] thick, formed of fragments of brick mixed with pieces of hard stone, the most conspicuous being a streaked limestone of a dark colour, seemingly from the Purbeck beds. The upper surface had been ground down level and then smoothed and polished' (Fox and St John Hope 1890, 746).

The Southern Temple was 15.2 m square (walls 0.6 m thick), and survived to 0.9 m in height; it was built of flint, though with the use of tiles in the corner. It also originally had a plastered exterior, painted bright red. The interior wall was 7.3 m square and 0.9 m thick (Silchester 2, Lewis 1966, 3, 12–29; Smith 2001, 205).

The Temples had no traces of steps leading up to their entrances. North of the Southern Temple were found some red tesserae which may have paved the temple's ambulatory (Mosaic 321.101, Neal and Cosh 2009, 236). There was also worked Purbeck marble, some so thin as to be likely wall-linings, but one thick enough to be a paving slab; the marble was found by both buildings. They were neither perfectly aligned with the grid nor with each other, both being about 10 degrees off (Fox 1948, 174). Finds included pins of bronze and bone, an iron stylus, some pseudo-Arretine, a small bone comb, a coin of Valens, an imitation of Tetricus and two terracotta lamps. A Durotrigian coin is also reported from close to the precinct (Bartlett 1854, 57; Boon 1974, 156). For general discussion see also Boon (1974, 155–7) and Muckelroy (1976).

Block XXX.I and II comprised a series of rooms along the northern edge of the insula, nudged into the curved angle. At the western end was an apsidal chamber. The Antiquaries believed these were two entirely separate buildings. Because of the apsidal feature Lewis wondered if it might not be a temple comparable to the Corbridge Schola 3 (Lewis 1966, 74).

Block XXX.III was first discovered in 1893; it is a large building or enclosure with walls 0.6 m thick, of which only three sides are known.

The Church of St Mary the Virgin is situated above the Romano-Celtic temple area in a co-location redolent of continuity, though with no direct evidence of such. Fox and St John Hope observed that the church was not aligned with any of the four sides of its surrounding churchyard, but was exactly parallel with the sides of the Southern Temple. This could have been a coincidence, or the current church may have been founded upon an earlier related building. Page (1911) considered the building originated with an aisled nave in the twelfth century, with a north aisle added at the end of the twelfth century and the chancel added in *c.* 1230. Ditchfield, writing a little later, concluded the chancel was built *c.* 1230 in the Early English period, and was probably an enlargement of an earlier one; he went on to discuss later embellishments (Ditchfield 1929). An early engraving of the church can be found in Wright and Fairholt (1845).

Insula XXXI

Insula XXXI has ill-defined borders. It was imagined that there should be a road on the southern edge of it, just above House XXXI.2, but the Antiquaries found no trace of it beyond a bed of gravel, and the geophysics only give a slight hint of one.

House XXXI.1 is on the northern edge of the insula. It possibly developed out of a tripartite north–south block perpendicular to the road, which was then extended by a southern range and other additions. The furnace in one of the rooms is mentioned by Boon (1974, 258). Perring (2002, 151) observed the heating in the small square room attached to the porch. He noted the phenomenon of such rooms at Silchester which had been identified as offices, waiting-rooms, gatehouses or porters' lodges; however the hypocaust suggests a significant role in the reception activities of the residence.

House XXXI.2, in the south-east corner of the block, is only known from traces to which the geophysics add nothing.

Insula XXXII

Insula XXXII contains perhaps the steepest slope within the Town Walls; some of the house walls were particularly thick as the houses were built into the slope.

House XXXII.1 was a north–south-aligned structure of two rooms with porticoes on each side (double-corridor house, early type, Berry 1951). Since the building was on a slight misalignment with the grid, but the northern gable-end had been twisted around to correct for this, it was perceived to be an early building. Within it there were pots buried into the floor. The quantity of charcoal suggested the house had burnt down. See also Boon (1974, construction details 199, 200, 340, fireplace 343) and Boon (1974, 340) contesting Berry's (1951) description of this as an early double-corridor house.

House XXXII.2 is similarly misaligned to the grid, and respects more the hillslope, though it is not totally in harmony with that either; but it is perpendicular to the newly-discovered Inner Earthwork extension ditch. It appears to be another double-corridor building with a hypocaust added on to the southern end. The hypocaust included a re-used fragment of an inscription with the letters: A…/M F (*RIB* 81).

House XXXII.3 was excavated in 1896 in advance of the enclosure of a southerly extension to St Mary the Virgin's graveyard; it consisted of a north–south-aligned row with a portico facing west and a pavilion on the southern end (early single-corridor type, Berry 1951). Curiously for there to be a pavilion on the northern end would suggest that this abutted the *temenos* wall rather than left space for the roadway. A small piece of worked porphyry came from the house, probably deriving from one of the temples to the north. Boon wondered if this was not the residence for the chief priest of the temple (Boon 1974, 156, 344).

Block XXXII.I was just a small patch of red tesserae, between Houses XXXII.1 and 2, which formed part of a now lost house. The geophysics gave no additional information.

Block XXXII.II, just behind House XXXII.2, was an unusual structure, appearing to be a free-standing portico with six bays; while Block XXXII.III close by was similarly a free-standing apsidal building. In each case it is probable there were additional rooms, perhaps obscured by a cover of hill-wash. Well XXXII.A close by included within it horse, sheep and cattle skulls. Boon wondered if these curious buildings might not be nymphaea or shrines to water deities, though at another point he pondered whether Block XXXII.II might not be a row of ox-stalls (Boon 1974, 156, 259).

Inner Earthwork extension: a new large ditch was revealed by the geophysics, appearing to be an extension or annex to the main Inner Earthwork; this traverses the insula on a north-east to south-west alignment. It is possible that it bifurcates to form a smaller ditch which may have been an earlier *temenos* enclosure before the shape of the latter was regularised with the Roman street system.

NOTABLE FINDS

Finds from Insula XXXII included inscription *RIB* 81 (from House XXXII.2). Architectural fragments included an Attic base with part of a shaft along with moulded fragments of Purbeck marble and wall linings, perhaps from the adjacent temples (found close to House XXXII.1). Also from this insula came a lava quern, upper millstone (Shaffrey 2003), and a polished Neolithic stone axe.

From the general area (Insulae XXIX, XXXI, XXXII) came numerous coins, and a coin hoard of 87 Constantinian coins (predominantly VICTORIA.D.D.AVGGG.N.N. and GLORIA EXERCITVS) from the side of the main room of Block XXIX.VII (St John Hope 1909a, 478–9).

Metalwork included two brooches, a miniature axe, a bell, a torque of debased silver, needles, pins, a three-legged iron candlestick, a few keys, and a Civil War iron rowel spur. In bone there were pins, needles and flat counters. In other materials there were shale trenchers (a type of plate) and bracelets, and a mutilated figure of Venus in pipeclay from 1.2 m down in Pit V; unfotunately the pit numbers were unmarked on the published plans for this season.

INTERIOR 12: INSULAE XIX AND XX (FIGS 5.38–40)

HISTORY OF INTERVENTIONS

1898 Excavation of Insula XIX (St John Hope and Fox 1899a).
1898 Excavation of Insula XX (St John Hope and Fox 1899a).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insulae XIX and XX: notes (Fox 1899b, 86; Ditchfield 1899a; b; Anon. 1899).

Insula XIX

Insula XIX was one of the few completely enclosed by walls. The western area was open ground and 'singularly free from rubbish pits', which the Fluxgate Gradiometry agrees with. To the north was a small House XIX.1, but the insula was dominated by a much larger courtyard House XIX.2. Seemingly unrelated to these buildings was a series of linear features unaligned with the Roman street-grid which may pre- or post-date the town.

House XIX.1 stood back from the street within the enclosed insula. It was a large rectangular hall with *opus signinum* flooring; it had been extended with a row of rooms both north and south of it, one of the southerly rooms having a hypocaust. The building was imagined as potential labourers' accommodation for the larger House XIX.2 by Boon (1974, 256, 260).

House XIX.2 was the largest building within this walled insula, occupying the central eastern side. It clearly overlay an earlier building which House XIX.2 may have been built around before it was demolished, similar to the way a new villa was built at Gorhambury adjacent to the old one before its demolition (Neal 1990). The earlier building itself sealed a pit. These are dealt with in turn.

Pit XIX.F was the earliest feature and contained within it a 'long bodied amphorae'. Sealing the pit was an early building comprising a row of rooms with a portico to the east. With a sill-beam structure rather than stone walls it is likely to be early in date. Two mosaics came from it which were thought to be late first or early second century in date, one of exceptionally good workmanship (321.58–9). The best surviving mosaic (321.58) is preserved in Reading Museum and received comment in a discussion of early mosaics from southern Britain by Allen and Fulford (2004, 17) and its relation to imagery linked to Bacchus was discussed by Hutchinson (Reference MO-24, 1986, 424) (see also Thomson 1924, 508; Toynbee 1964, 259; Boon 1974, 214, 217–21; Smith 1977, 113; Witts 2005, 107; Fulford 2003, 99).

The later house began as a double-corridor house with pavilions on the western side (Berry 1951). Presumably once the earlier building was removed, the northern and southern wings were added to the eastern side to create a central courtyard. The later courtyard house was less richly decorated than the former building in terms of its flooring (Mosaics 321.60–62, Neal and Cosh 2009, 220–2). See also Boon (1974, private bath suite 197, hypocaust 125, 287, ceiling heights 199, threshold 204, wall plaster 212) and Perring (2002, 70, 190, 194); the latter includes a functional analysis of the use of space.

To the east was a small square building which had exceptionally thick walls. The Antiquaries thought this might be a water-tower, but Perring (2002, 183) thought a tower granary more likely; whichever, it would have blocked the view from the western portico.

Another yard area was enclosed to the south. This area was interpreted as a tannery by the Antiquaries on the basis of the identification of several water-tanks which could be used for steeping skins, and one large possible tanning-pit, though admittedly the scale was small so this would only be for goats and sheep. A couple of large pits appear on the geophysics within the yard. On the other hand, Boon perceived the entire walled insula more as a plush building with a farm: a barn in the south wing; industrial and corn-drying plants in the walled yard to the south; a wider entrance to allow carts or livestock through; a granary to the west; and a building for potential labourers' accommodation in House XIX.1 (Boon 1974, 192, 256, 258, 260).

Block XIX.I and Block XIX.II lay to the west of House XIX.2, both seemingly isolated with several rooms. No conjectures were offered by the Antiquaries as to their purpose. Perring described Block XIX.I as a strip-building with projecting rear wings (Perring 2002, 60); while Boon thought Block XIX.II had elements of its plan which could be interpreted as a narthex, chapel and sanctuary alcove of a typical small mithraeum (Boon 1973; 1974, 159); he cited a parallel to the possible Maryport mithraeum (see Lewis 1966, 193). Close by a cremation was found in the south-west corner of the insula in a large black vessel.

Insula XX

Insula XX was unwalled with no clear limits on any side. No east–west road was noted to the south continuing on from that between Insulae XIX and XVIII, but the geophysics do hint at the road continuing north-west from the east–west street and parallel to the Town Wall. There were various small buildings scattered throughout the area with no consistency in orientation. As with Insula XIX, there were several long linear features crossing the insula at various angles unrelated to the street-grid.

Block XX.I was in the northern area and appeared to be an enclosed yard or large hall perpendicular to the road with a few rooms at one end. To the east of this was Block XX.II. Together, these were interpreted as a small house with attached yard and associated square drying-floor or granary by Boon (1974, 260).

House XX.1 was also in the northern area, and was a three-chamber house orientated north-east to south-west. The especially thick foundations of the northern wall were considered to be the base of a staircase. In its vicinity, in the north-north-east of the insula, there is a very distinct cluster of large pits revealed in the geophysics, with a clear cut-off line suggesting a tenement boundary.

Block XX.III on the central eastern side was only a small floored isolated room, but evidence suggested that the walls projected further and a larger building may have gone unseen. It was oblique to the street-grid.

Block XX.IV was a more substantial structure perpendicular to the north–south road on the eastern side, though only one row of it is clearly understandable. The building sealed a rather curious Pit XX.Q which was 1.8 m in diameter and 4.6 m deep, containing within it ten stakes of silver birch, 0.9–2.7 m long, set in rows. This was imagined as an animal trap dating to before the town. In its vicinity were the remains of two smaller square structures: one heated (Block XX.VI) and the other not (Block XX.V). The former was interpreted in two very different ways by Boon: first, as a heated room of a building plan otherwise not recorded, and then later on as an isolated corn-drying building (Boon 1974, 160, 258).

Block XX.VII had walls of two distinct phases, one on alignment with the grid, and another, presumably earlier, oblique to it with a hypocaust at its northern end.

House XX.2 was in the southerly ‘extension’ of the insula, and was a three-room block parallel and adjacent to the Town Wall (Mosaic 321.63, Neal and Cosh 2009, 222).

NOTABLE FINDS

Few distinctions were made in find locations during the Antiquaries’ ninth season. An upper quern of Lodsworth stone with its wooden handle intact came from Pit XIX.A next to House XIX.1; a lower quern of old red sandstone came from Insula XX (Shaffrey 2003). Bronze objects included the usual pins, brooches and rings, together with a hemispherical bell, a length of well-made chain, a pin in the form of a snake with an inlaid silver eye and three enamelled brooches. Other metalwork included a crushed pewter jar, a pair of iron handcuffs, sundry keys, styli, the beam of a steelyard and a steelyard lead weight, part of a hipposandal, and a pair of iron slings or canhooks (used to sling a cask by the ends of the staves). Within a trench in Insula XVIII was a small leaf cut out of gold, perhaps dress ornamentation.

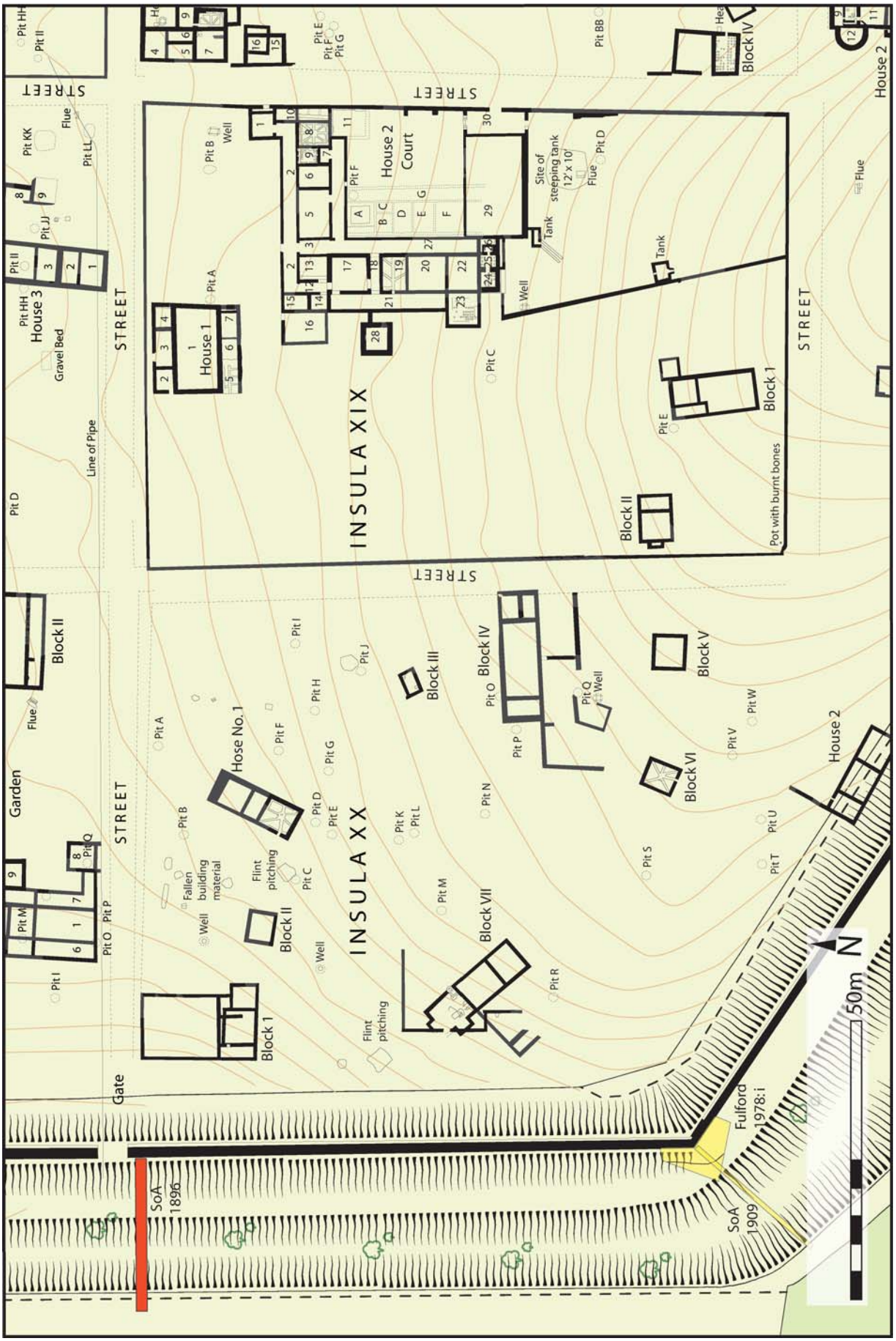

FIG. 5.38. Interior 12 – Antiquaries' plans and modern topography.

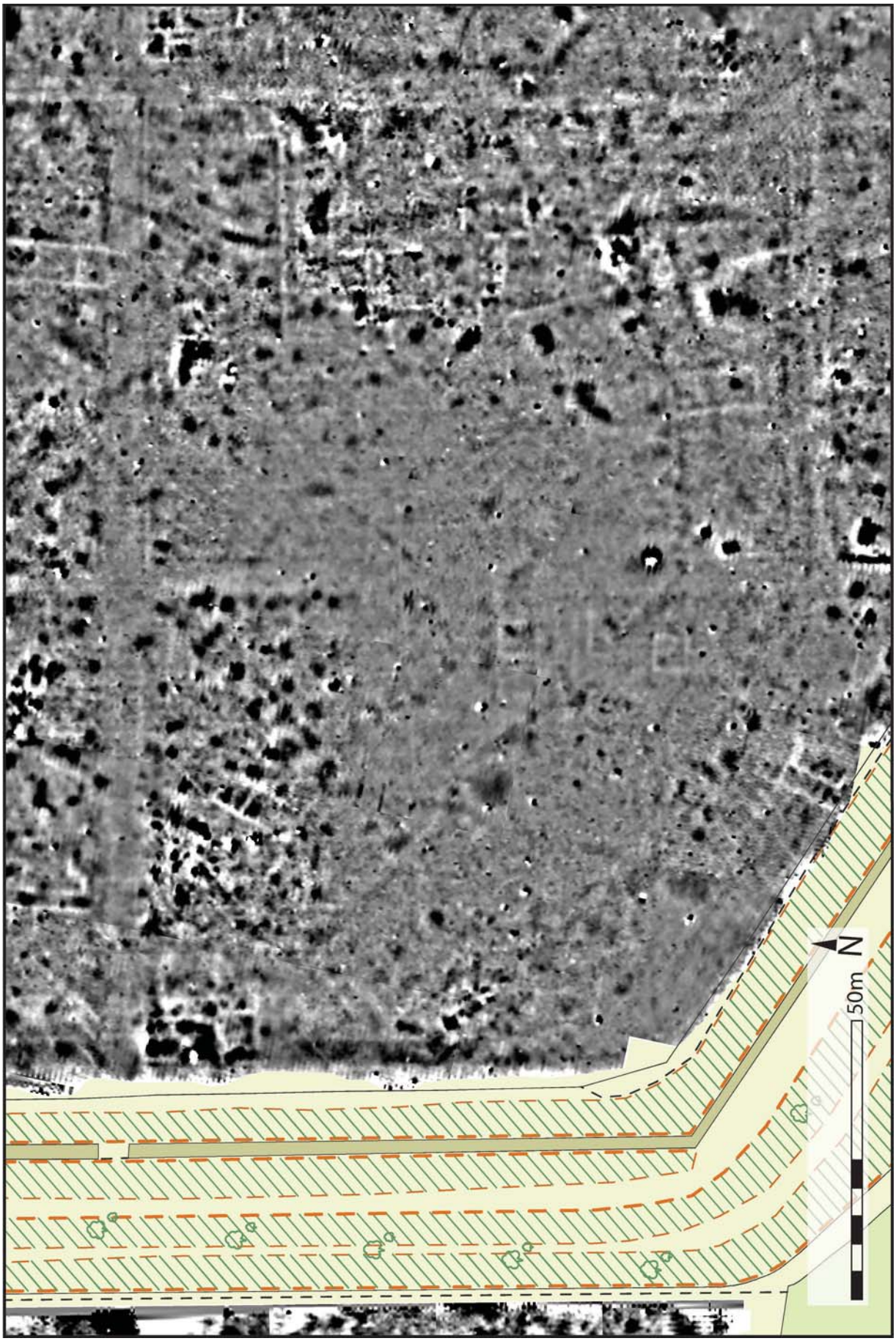

FIG. 5.39. Interior 12 – fluxgate gradiometry image (± 7 nT).

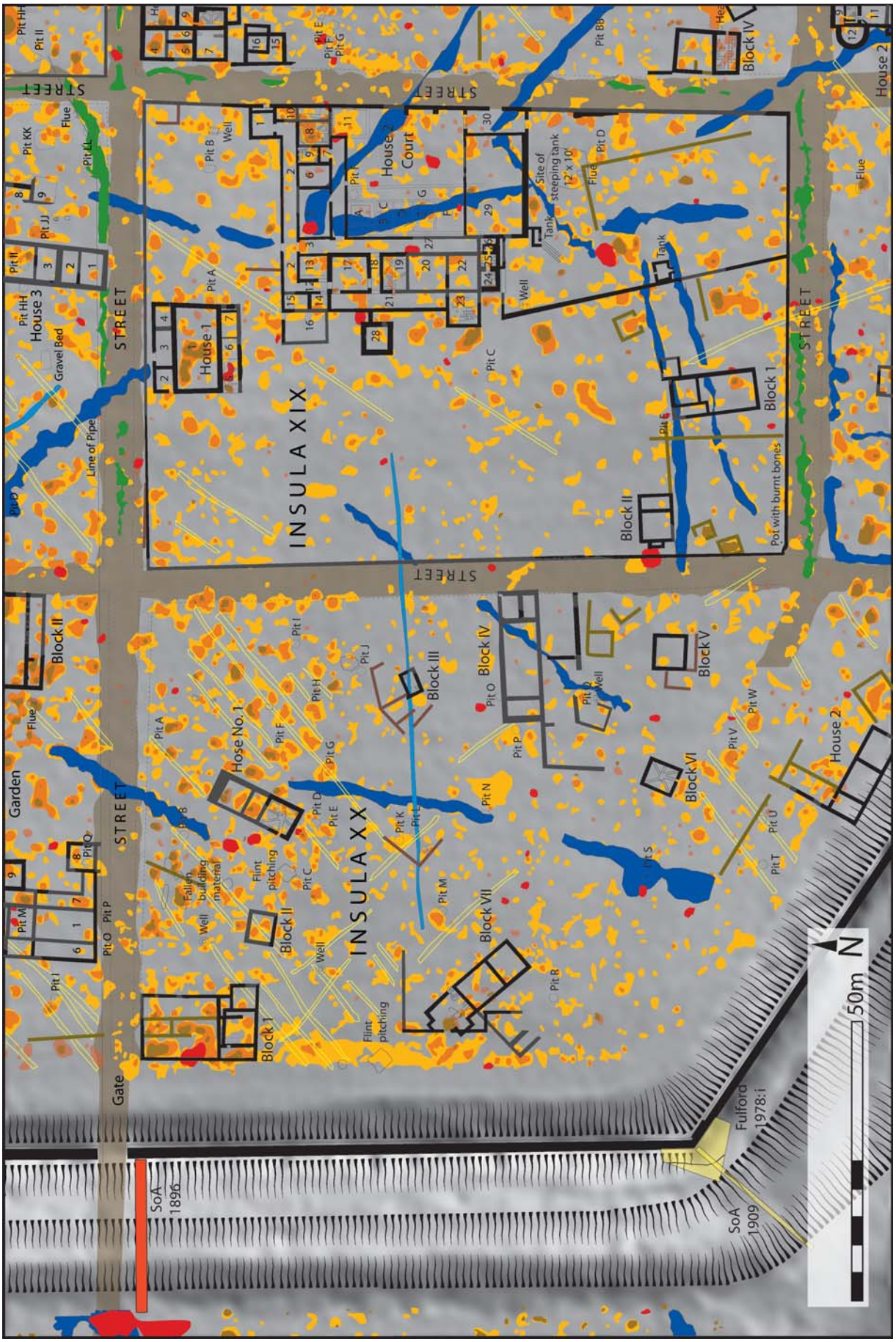

FIG. 5.40. Interior 12 – interpretative plan.

INTERIOR 13: INSULAE VII AND XVII (FIGS 5.41–43)

HISTORY OF INTERVENTIONS

1873	Polygonal temple excavated as 'Block VII' by Joyce (1881b, 344, no details).
1878–84	House VII.3 dug as Monro and Langshaw's 'Block VII' (Hilton Price 1887).
1892	Excavation of Insula VII started but not reported (Fox and St John Hope 1893a, 570).
1893	Excavation of Insula VII completed (Fox and St John Hope 1894, 200–10).
1897	Excavation of Insula XVII (St John Hope and Fox 1898a, 103–10).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Joyce's excavations: lectures (Joyce 1873, 15, 27; 1876a, 55); a note (Fox 1899b, 83); Antiquaries' lectures (Fox *et al.* 1895b; St John Hope and Fox 1898b).
Insula XVII: note of finds (Fox 1899b, 85–6).

DESCRIPTION

Insula VII

Insula VII had been amply started off by the attentions of Joyce, Monro and Langshaw before the Antiquaries began on it. The latter discovered little new except that this was the first time they had encountered a large number of row-houses that had not been developed into a larger courtyard building. They also specifically noticed that many of these buildings were at a slight angle to the grid, or had their gable ends on the street-front rather than their long side, but they ventured no explanations as to why this might be the case (Fox and St John Hope 1894, 200).

Insula VII is divided a third of the way down by an east–west lane, though it is unclear if the roadway made it fully across to the western edge, as several features and a building in the way seem to prevent its complete passage. In their interpretation of the aerial photographs, Bewley and Fulford represented it as turning south, effectively to mark out a *temenos* for the polygonal temple, and it has been represented this way on the sheet (Bewley and Fulford 1996, 388); however, a wall on the Antiquaries' plan means that if the lanes did ever join they were cut off at some point.

The northern part of the insula appeared to have two large apparently relatively empty enclosures to the east, interpreted by the Antiquaries as gardens, though the westernmost one has traces of buildings showing in the geophysical data. To the west was a sequence of buildings: House VII.1 which had been succeeded by Houses VII.2 and VII.3. To the south was the much larger enclosure containing the polygonal temple, with the remains of a series of buildings to the west of it. Only House VII.4 was recovered in plan, though there were remains of others both to the north (including red tesserae) and to the south.

House VII.1 is only known from a fragmentary plan as it was overlain by later structures, but it appears to be a row-building with a portico on the southerly side, so *not* facing the street. One room may have opened up on the north side to the street. This was a small apsidal room which Fox suggested might be a wayside *lares compitales*, while Boon wondered if it might not be the seat of some *collegium* or a shrine (Boon 1974, 158). The building may have been added on to by a western wing with an eastern portico but the details are unclear.

House VII.2 overlay House VII.1 and comprised a north–south row of rooms with a portico on both sides and a possible bath suite added to the south-west. It lay at a slight angle to the street (Fulford 2003, 100). The building was rebuilt on a similar plan at some point; this included an adjustment to the gable end of the building so that it was on alignment with the street frontage. Three mosaics belong to the buildings, one potentially retained from one phase to the next (Mosaics 321.27–29, Neal and Cosh 2009, 203–4). Curiously the southerly wall of this building and that of the lane wall continuing eastwards were exceptionally thick, though what they were supporting is unclear.

FIG. 5.41. Interior 13 – Antiquaries' plans and modern topography.

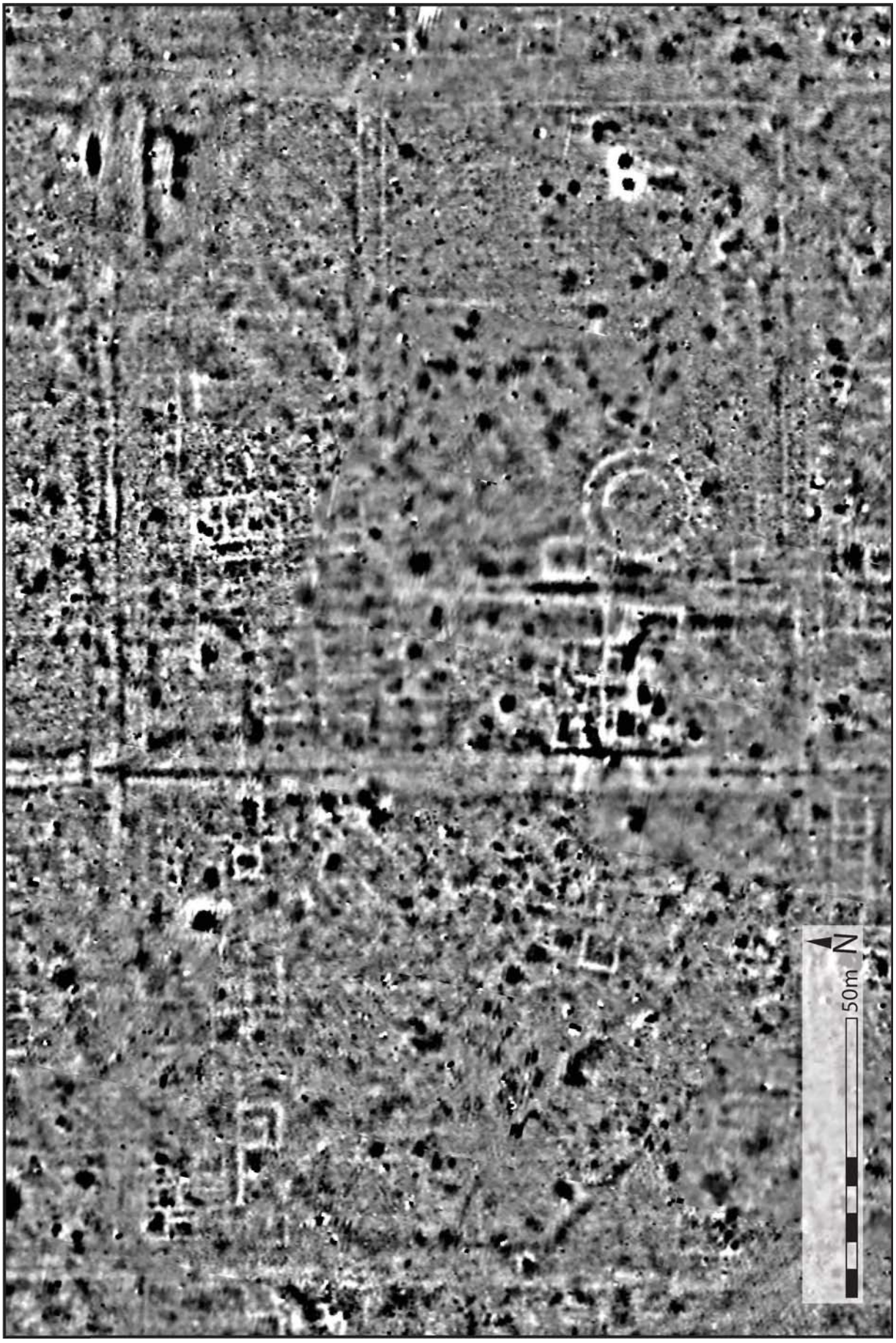

FIG. 5.42. Interior 13 – fluxgate gradiometry image (± 7 nT).

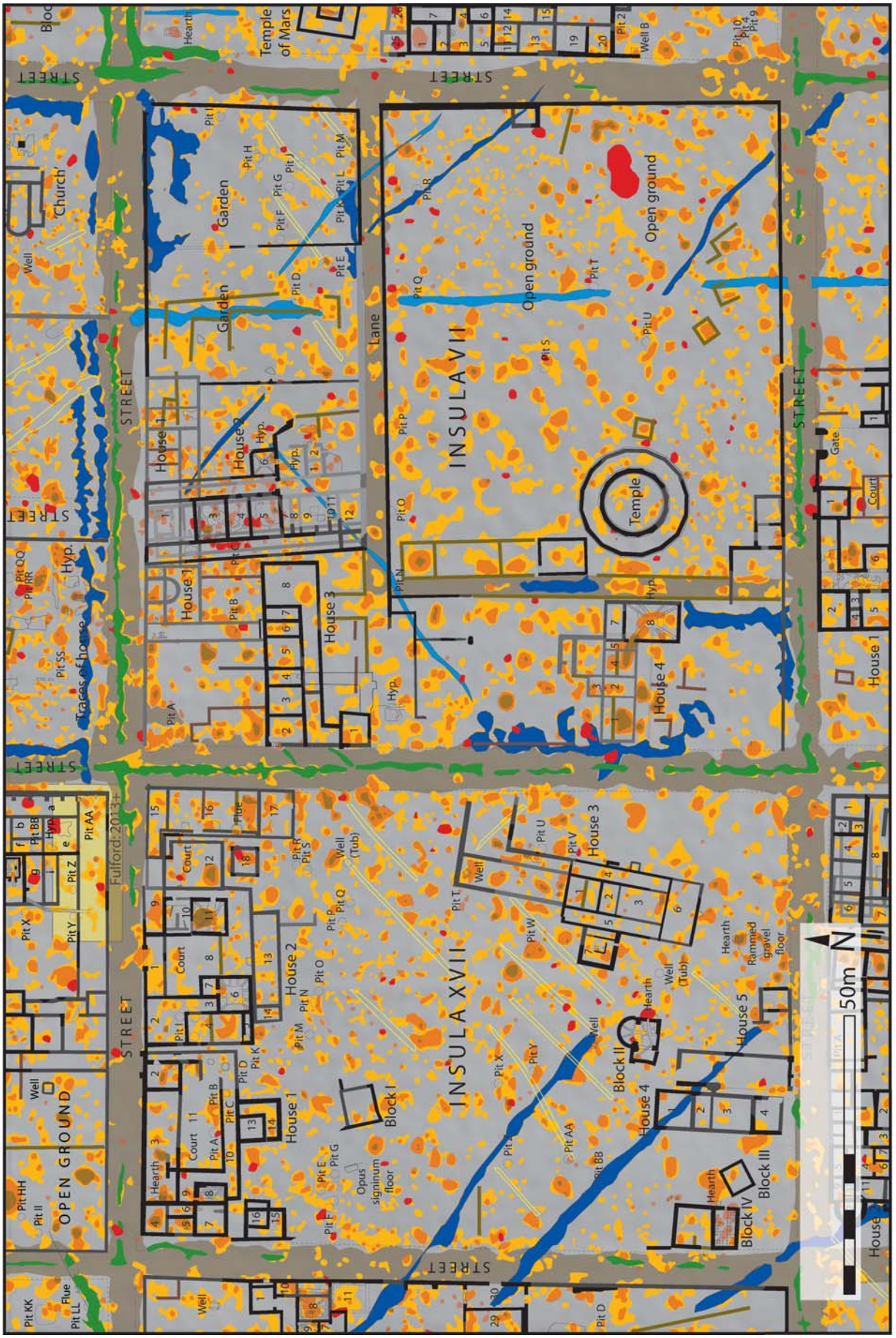

FIG. 5.43. Interior 13 – interpretative plan.

House VII.3 was excavated by Monro and completed by Langshaw, and was not re-excavated by the Antiquaries as it had already been covered over. It was a row-house with a portico on the southern side. It presented its gable end to the road and was again at a slight angle to it. See also Perring (2002, 67). The geophysical data suggest there may have been an additional room on the southern side.

House VII.4 began in origin as an east–west row-house with a portico on the southerly side, again presenting its gable end to the road at a slight angle. To the east had been added rear reception wings, including a heated larger room which was enlarged at some point (Perring 2002, 67). The building had a much thicker gable-end wall which Perring (2002, 112) observed was in common with many aisled buildings in the Nene valley, and Smith (1982, 9) argued might illustrate a weakness in roof construction. Boon wondered if this might not be the priest of the polygonal temple's residence (Boon 1974, 157).

The 16-sided Polygonal Temple was first excavated by Joyce, but there was no published report. It was later re-excavated by the Antiquaries in 1893. Of the two concentric walls, the exterior was polygonal (19.8 m diameter), while the interior was circular. The base of a column which came from not far away in Insula VIII may be related. The foundations of the walls were slight, which Muckelroy thought could mean that they were not solid walls and that the roof had been supported on columns in an open structure, though the evidence was not conclusive. On the other hand Boon thought the *cella* might have been as much as 11 m high (Silchester Temple 4, Lewis 1966, 3, 13, 30; Boon 1974, 157–8; Muckelroy 1976; Smith 2001, 206). Fragmentary evidence suggests it may have had a black and white floor mosaic (Mosaic 321.30, Neal and Cosh 2009, 204).

Joyce's journal mentioned a worn as of Vespasian embedded in the *cella* wall, but there are many examples of coins being forced into cracks in the walls of shrines, so this cannot be used as conclusive dating evidence.

The deity of the temple was unknown. At the time Professor Freeman had considered this might be a circular church, though that argument was not sustained (St John Hope 1893b, 163; Freeman 1883). Other suggestions linked it to the dedicatory inscription to Hercules of the Segontiaci (*RIB* 67), although this was found to the north of the Forum and not here. Another possibility explored, particularly by Boon, was that it might be associated with an eastern cult. In 1893, from a trench close to the temple, a portion of an oil bottle or *alabastron* possibly of Egyptian alabaster was found. These are very unusual, although parallels from Caerwent and Trier were known to Boon (1957, 123; 1974, 158; 1981b). Given the lack of finds from bathhouses, he suspected them of being associated with rituals in the temple (Boon 1981b). The head of a large cult statue of Serapis had also been discovered in the garden of Lt-Colonel Karslake in the village of Silchester, and Boon wondered if this might have come from the temple (Boon 1973).

The *Temenos* enclosure wall sealed three pits (Pits VII.N, O and P); the interior did not display any significant pitting on the geophysics. Soffe, who undertook some of the early digitisation of the aerial photographic plots for the Royal Commission, considered there were signs of a large ditched enclosure under Insula VII, but this interpretation did not make it to the final published version (Soffe 1994, 139; Bewley and Fulford 1996).

Insula XVII

Insula XVII was bounded on the east by the main north–south street. Two houses took up the entire frontage along the east–west street, while the rest was rather less densely occupied. The insula also straddled the area where the projected Late Iron Age road from the Forum should have been heading and might have been traceable. As it happens there is a slight north-east to south-west feature in the north-west corner which would align fairly well.

House XVII.1 was situated in the north-west of the insula. While the plan appears to be that of a courtyard building, it is very difficult to interpret. Two piers on the street frontage which should indicate a gate or doorway appear to lead into an end-on wall, and the Antiquaries' solution of positing two doors, one leading into a house and another into a corridor, is a very

curious arrangement. More likely, multiple building phases have been conflated. Potentially at its core was an east–west-orientated single-corridor house with a portico to the south. The rooms immediately to the south-west were considered to be stabling. See also Perring (2002, 70) and Boon (1974, layout 192, ledge or stand for a dresser 195, fireplace 343).

Block XVII.I was just south of House XVII.1 but on a different alignment. It comprised a large square with walls running off it; just to its west was a similarly aligned piece of *opus signinum* flooring. All this indicated a potentially early, larger unrecorded structure.

House XVII.2 in the north-east of the insula was a complex palimpsest which probably relates to a number of phases and multiple houses. Two courtyards divided the structure into three main blocks, although various walls look as if they were intended to draw them together. Room 16 on the far eastern edge had the remains of a mosaic from an early phase (Mosaic 321.54, Neal and Cosh 2009, 219) and also a flue similar to others which Fox and St John Hope elsewhere related to the dyeing industry; whereas Boon associated it all with agriculture, having a barn on the south, agricultural buildings on the east and an isolated tower granary (Boon 1974, 256, 260).

House XVII.3 on the lower eastern side of the insula was misaligned to the grid by 11 degrees (Fox 1948, 175), and two of its northern walls almost look as if they had been truncated by the north–south street. The building was a double-corridor house of Berry's early type (Berry 1951). The Antiquaries thought it was particularly early in date because of the thinness of the walls. However early it was, there were already pre-existing pits or wells which the wall foundations subsided into (e.g. Pit XVII.T under the north-west corner of the building).

Houses XVII.4 and XVII.5 represented a range of walls and rooms on the central-southern side of the insula. House XVII.4 was a coherent set of four rooms in a row, almost but not quite perpendicular to the street. The additional walls of House XVII.5 may have been extensions or different phases of buildings. One room on the street with columns or posts on either side, was considered to be a possible shop by Boon (1974, 339). See also Perring (2002, 64).

Around these were three smaller buildings, two of which had furnaces and heated rooms (Block XVII.II and Block XVII.IV), while one was a simple rectangle (Block XVII.III). The two heated rooms were pressed into service in the dyeing industry model the Antiquaries envisaged for the town (St John Hope and Fox 1898a, 109).

NOTABLE FINDS

Few finds for Insula VII were reported beyond stating that the usual small objects of various kinds were found. A tile with a *Bos longifrons* sketched on it was remarked upon.

In the reports the finds for Insulae XVII and XVIII were combined (see entry for Insula XVIII, Interior 15); however, we can identify a large circular base of a millstone from Insula XVII (Fox 1899b, 85–6), as well as a Corinthian capital probably from the Basilica (St John Hope and Fox 1898a, 120; Blagg 2002, 22–5, 256–60).

INTERIOR 14: INSULAE XXXIIIa AND XXXV (FIGS 5.44–46)

HISTORY OF INTERVENTIONS

1892	Part of XXXV trenched with no results (Fox and St John Hope 1893a, 571).
1903–4	Excavation of Insula XXXIII (St John Hope and Fox 1905a).
1907	Major part of Insula XXXV (St John Hope 1908, 202–9).
1908	Insula XXXV, minor follow-up in front of the temple (St John Hope 1909a, 474).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insula XXXIII: a visit (Ditchfield 1904); lectures (St John Hope and Fox 1905b; St John Hope 1905).

Insula XXXV: notes (Fox and St John Hope 1894, 232; Anon. 1908b); lectures (St John Hope 1909c; b); a society visit (Anon. 1907a, 195–6).

DESCRIPTION

This area contains a regularly shaped insula (XXXV) to the west and an irregularly shaped insula (XXXIIIa) to the east, within which the layout was distorted by both the early Inner Earthwork and the stream.

Insula XXXIIIa

Insula XXXIII was an exceptionally irregular shape running down from the Public Baths to the southern Town Wall, and bounded to the east by the stream. Various roads have been discovered in this area but they do not conform to the neat grid, largely because of the topography. Boon divided it into XXXIIIa and b on the basis of an east–west road, and that distinction is maintained here (so House 1 is in XXXIIIb).

House XXXIII.2 was a classic double-corridor house aligned north–south, with a pavilion-like heated room added on to the south-eastern side (early double-corridor house type, Berry 1951). The house is positioned at the end of one of the roads, and also just outside the Inner Earthwork, so would not have suffered from subsidence. This is probably the most 'invisible' house on the Fluxgate Gradiometry results from the site, though the building is described as being made of the usual flint rubble with tile or stone quoins, so there is no clear explanation for this other than depth. Block XXXIII.II could have been a northern range associated with the house. This east–west-aligned block included a furnace and additional rooms, and does show clearly in the geophysics. It has been interpreted as a workhouse for the main building. It included within it the remains of one of the long-flue hearths the Antiquaries had convinced themselves were for dye-vats, while outside to the south-east was found the base of a round furnace. So the Antiquaries interpreted the structure as one in which to dry fabrics dyed in the large workshop. See also Boon (1974, 343).

House XXXIII.3 was interpreted as an L-shaped block of three rooms, with a hypocaust-heated semi-circular room added to one end, though curiously slightly detached according to the plan. It also had a yard to the north, although this could also be another room. The position and alignment of the building seem to suggest awareness of the Inner Earthwork Extension, which it sits just outside. See also Boon (1974, 340), contesting Berry (1951) who described this as an early single-corridor building.

House XXXIII.4 was a simple rectangular building with a corridor built all the way around it. This was subsequently extended marginally to the south and to the north-east with the addition of another range (Boon 1974, layout 189–90, structural detail 199, alignment with the baths 305); the latter extension was built over later by a double-room rectangular building, Block XXXIII.VIII. Fox (1948, 175) observed the original range was 10 degrees off the street-grid, and therefore supposed the original building to be earlier.

House XXXIII.5 comprised a three- or four-chamber middle block which had a continuous corridor erected around it. Along with House XXXIII.4, this surrounding corridor is a feature which has been discussed alongside other early building types in the report on the exceptionally early villa at Ditches, near Bagendon (Trow *et al.* 2009). The early house was aligned east–west, off alignment to the grid by about 9 degrees (Fox 1948, 175), but an additional western range was built which brought it into alignment with the road. Just to the south of House XXXIII.5 and also on the street frontage was Block XXXIII.IX, another apparently isolated small square building.

Block XXXIII.III was a large rectangular building subdivided into three rooms. Within it was a T-shaped corn-drying oven of a type unknown at Silchester in the early twentieth century. The oven is discussed as part of a larger survey by Goodchild (1943, 152) and Boon (1974, 258, 287). However, again the Antiquaries interpreted it in relation to their dyeing-industry paradigm, so despite it being novel and unusual in character, 'the arrangement can have had nothing to do with any metallurgical process, but could well have sustained a long boiler or vat

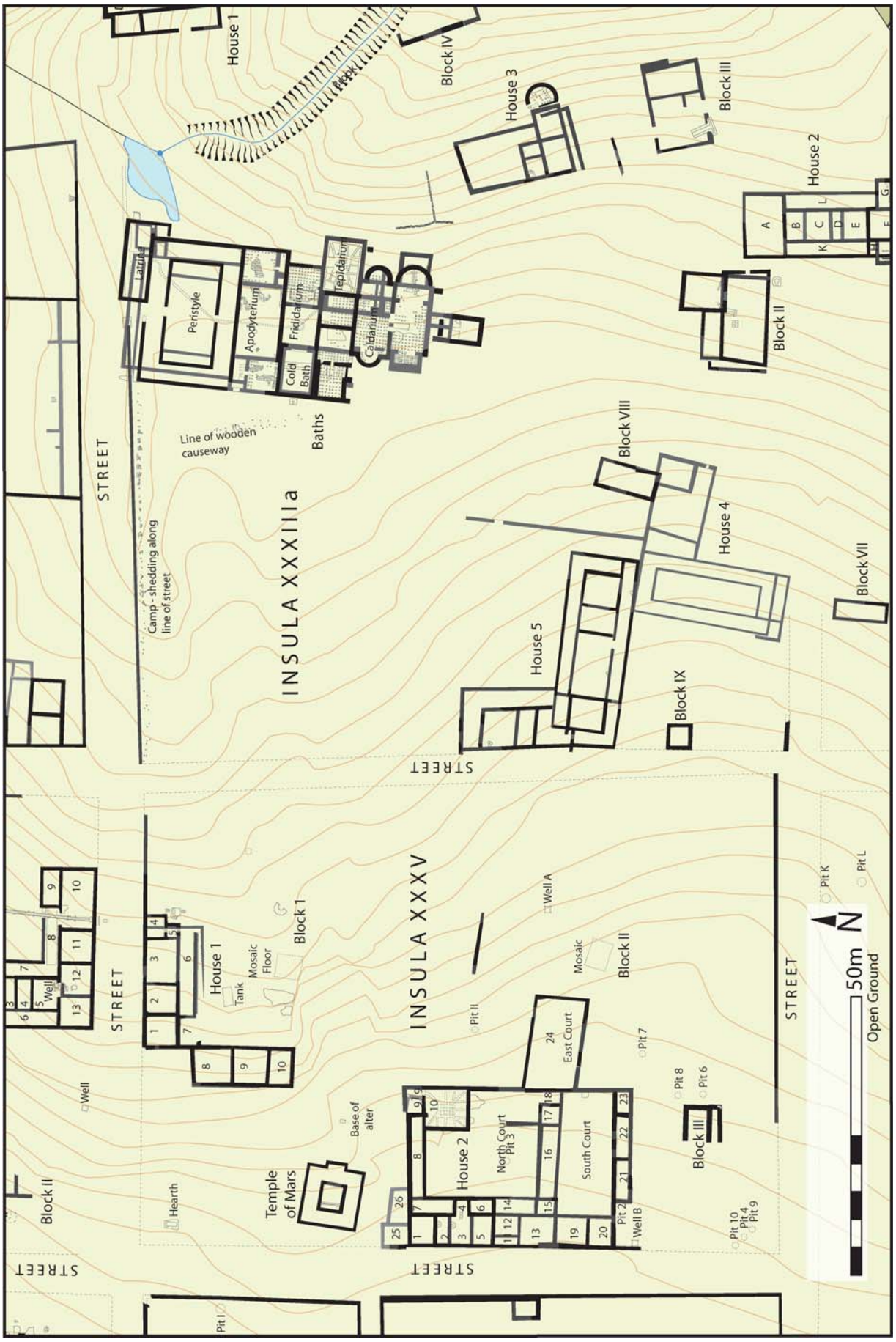

FIG. 5.44. Interior 14 – Antiquaries' plans and modern topography.

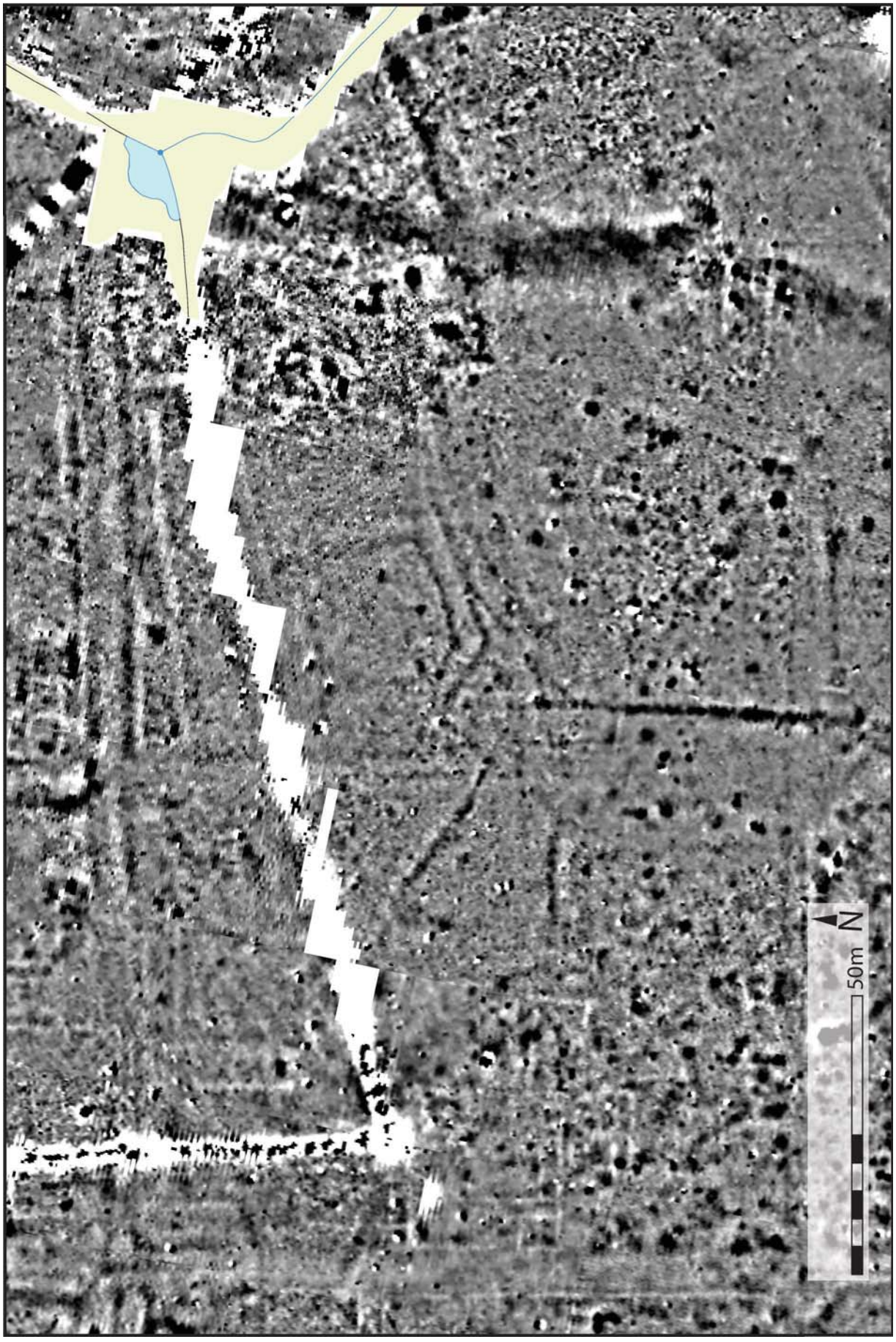

FIG. 5.45. Interior 14 – fluxgate gradiometry image (± 7 nT).

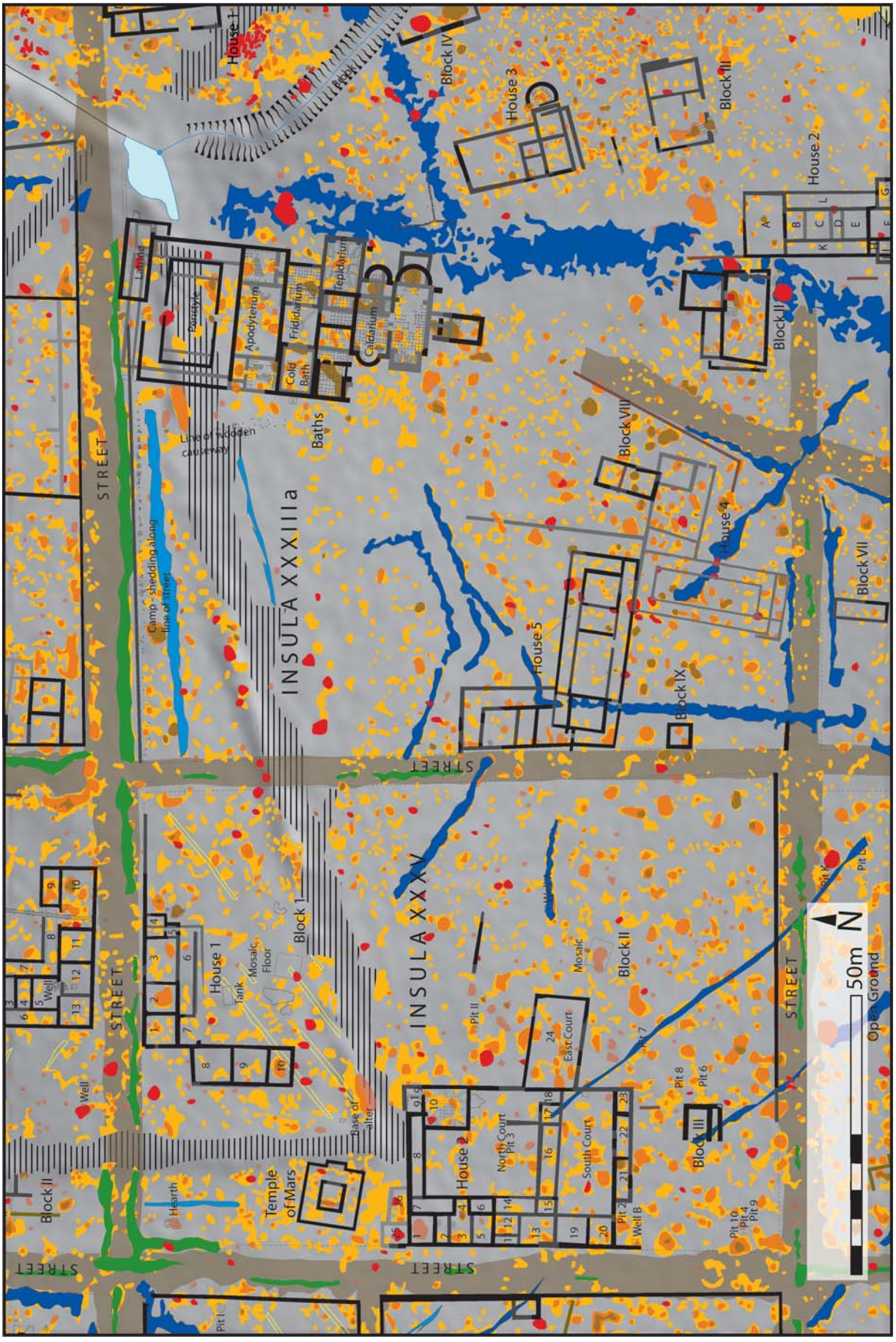

FIG. 5.46. Interior 14 – interpretative plan.

for dyeing stuffs of some such purpose, and so would take its place with the remains of the many other furnaces found within the town' (St John Hope and Fox 1905a, 336).

Block XXXIII.IV was a simple rectangular structure adjacent to the brook.

The Public Baths

The baths represent an early building on the site, which was notable for its misalignment to the street-grid, and for the fact that part of its front colonnade subsequently had to be knocked down to make way for the east–west road; an act which sealed the early colonnade with a 0.46 m deposit, with a new threshold being placed above.

Fox eloquently described the baths and the extraordinary aspect of the porch's demolition: 'From the first the Baths were on a major scale, with a portico and *palaestra* fronting the usual range of rooms arranged in a transverse row (*Reihentypus*). The portico in particular was of a monumental character, with 8 Doric columns with a double roll moulding at the base and a pronounced necking (*toros*) below the cap, a type that can be matched on other Romano-British town sites like Cirencester or Wroxeter. The stone has been kindly identified for me by Dr Wallis as an Oolite, of the type known as Bath Oolite: he adds that this rock was extensively used in the Roman buildings at Bath; and is found at Corsham and Box nearby. The Silchester columns are evidence for the opening up of the Bath quarries on a considerable scale at an early date. Even allowing for the wooden architrave, the [19.8 m] façade must have been imposing; yet this portico was ruthlessly destroyed, the columns hacked down and their stumps buried in [0.45 m] of gravel, and a plain front with protruding latrine block built in its place' (Fox 1948, 172–3).

The Baths' phasing

The Antiquaries came up with a six-phase development for the building showing constant adaptation, which may be briefly summarised as:

> Phase I: main construction with a portico on the front.
> Phase II: demolition of the portico and adaptation of the front of the building to create a new court and a revised latrine block.
> Phase III: enlargement of the latrine block along with significant enlargements to the main baths, with an *unctorium* being added on to the west of the *apodyterium*, and an additional *caldarium* being added on to the southern end.
> Phase IV: an increase in the width of the baths to the east, involving widening the entrance peristyle, and adding a service-room and an additional small area to the *caldarium* and consequent changes to the drainage flow.
> Phase V: several structural internal re-organisations and changes in room use, including extending the *caldarium* to the south and east, and the addition of an apse.
> Phase VI: the removal of some interior walls, the demolition of the southern rooms of the *caldarium* with the remaining part reconfigured, and a slight extension to the *tepidarium* and removal of several interior walls.

This phasing is a collation of about 26 substantive changes to the original baths, and doubtless different phasings could have been created. An excellent review of the evidence with additional parallels is provided by Boon (1974, 121–30).

In terms of architectural detail, the *frigidarium* had at a later stage a black and white mosaic floor. This was laid over some *opus signinum*, itself overlying herringbone tiles (Mosaic 321.102, Neal and Cosh 2009, 237). They suggested that for this usage, by analogy with other cases, a date no later than the Antonine period would be expected.

Subsequent discussions of the baths include Atkinson (1942, appendix B), Liversidge (1968, 43–5), and Boon (1974, 88–91, 121–31).

Dating

The dating of the baths is difficult; all that is secure is that it predated the road. Often a Neronian

tile stamped NER.CLL.CAE.AVG.GER (A.D. 54–68) is mentioned in association with this building, but only one was found and it was not *in situ*, instead coming from the cesspit which the latrine flowed out into. Nonetheless, it has been accepted by many as dating the baths to the Neronian period (e.g. Cotton 1947, 127, 135; Perring 2002, 173). Wilson (2006) thought it could be as late as the early Flavian period; he noted that the baths lay over the course of the Inner Earthwork, implying that the rampart had already been demolished by that date. Discussion of the early column bases from the portico can be found in Blagg (2002, 112, 543, 559).

Location

The position of the Baths indicated that it was cut into where the bank of the Inner Earthwork would have been, and its south-eastern end is where the Inner Earthwork Extension joined. The Bath's latrine was fed with water from the west by a stream which flowed under the portico. The outflow was in the north-east corner of the building complex, into a pit about 1.2 m square lined with wood, the overflow of which the Antiquaries imagined went into the stream on its current course. However, the discovery of the true line of the Inner Earthwork means that it is clear this outflow went directly into where the early ditch was, suggesting this was open at the time the Baths were built; whether the outflow was re-directed into the stream at a later date when the ditch was backfilled is unknown.

Insula XXXV

Insula XXXV was a rectangular insula, with a temple in the north-west and two other major building complexes in the north-east and south-west, but little revealed in the south-east.

The Temple had a low podium, 10.7 x 11.1 m, with a *cella* measuring internally 3.7 x 4.3 m with a wall 0.6 m thick, angled 13.5 degrees off the street-grid (Fox (1948, 174) calculated it as 10 degrees off). The entrance was on the east and a little in front of it was an altar discovered in follow-up excavations the next season (Silchester 3, Lewis 1966, 3, 12–29; Smith 2001, 255). Aileen Fox observed the way the temple in effect turned its back on the nearby north–south street, having an external altar on its eastern side, which suggested to her a pre-street-grid date in origin (Fox 1948, 174). Liversidge (1968, 438) provides a reconstruction.

Several fragments of deliberately broken life-sized statuary were found in the *cella* carved in coarse ooliote. The collection comprised: 'a bearded chin, a left hand grasping the end of a cornucopia, parts of two legs, with the fronts covered with greaves ornamented with lions' heads, and apparently an arm partly covered in drapery' (St John Hope 1908, 208); some drapery from a cloak was also attached to a leg. St John Hope thought the god Mars was a not unlikely identification, as did Liversidge (1968, 443); Haverfield, however, thought Mars holding a cornucopia unusual, and considered an Imperial statue from Hadrian onwards more likely (Haverfield 1908).

E. and J. Harris thought it could be a temple of Isis, although Boon thought this was skating on thin ice (Boon 1973; Harris and Harris 1965), not least because three inscriptions were found there (*RIB* 69 and 70 within the temple, *RIB* 71 just outside) which were presumably affixed to statue bases of Peace, Victory and Mars respectively, set up by a member or members of the *Collegium peregrinorum* at Silchester. The nature of this college was discussed in a wider context by Frere and Fulford (2002) and also Eckardt (2012). They considered it to be late first or early second century in date, largely from the use of the Purbeck marble. They also observed that the alignment is off the main street-grid, but similar to the bathhouse, so suggested this might be a pre-Flavian temple.

Frere and Fulford conjectured a specific context for the temple: 'if we follow Boon in recognising in *RIB* 70 the dedication of a statue of Victory and of subordinate celebrations both of Pax and Mars on the other two, then perhaps the context was the final victory of Agricola in A.D. 83 and the establishment of peace in the province: a peace which was to last some thirty years and which was recognised almost at once by the erection of the great monumental arch at Richborough as a symbol of conquest completed' (Frere and Fulford 2002, 174). See also Boon (1974, inscription

and the chartered status of the town 58, destruction under Christianity 72, overall 153–5, size in relation to baptistery 182).

House XXXV.1 occupied the north-eastern corner of the insula, and was an east–west-aligned row of rooms with a southern corridor; perpendicular to it a western range was added. There were piles under some of the walls. Boon also commented upon the manure pit and a hearth (Boon 1974, 90, 343). Block XXXV.I was an isolated red mosaic just south of House XXXV.1, so thought to relate to a timber structure, now lost. It could have been a contemporary additional range.

House XXXV.2 occupied the central western side of the insula. It was believed in origin to be a north–south row of five rooms with a portico on the east, and thereafter subsequently developed into a courtyard building. See also Boon (1974, barn 256, alignment to bathhouse 305).

Block XXXV.II was another isolated mosaic to the east of House XXXV.2; both this and Block XXXV.I were commented upon by Fulford (2003, 99) in a discussion of early timber houses and the pre-Flavian town plan. The geophysics add nothing in terms of context to these mosaics as no buildings reveal themselves around them.

Block XXXV.III, near the south-west corner, comprised a series of very thick walls, but no function could be ascribed to them.

NOTABLE FINDS

From Insula XXXV came fragments of two pieces of Doric capital which judging by their size were thought to come from the adjacent Forum. Various bases and capitals found in the baths, as well as the tile stamped NER.CLL.CAE.AVG.GER, came from the cesspit east of the latrine at the north-east of the building. In terms of metalwork, a gold earring, a broken gold-headed pin and lead weights also came from there.

INTERIOR 15: INSULAE XVIIIa AND XVIIIb (FIGS 5.47–49)

HISTORY OF INTERVENTIONS

1890	Section through the Town Wall (Fox and St John Hope 1890, 754).
1897	Excavation of Insula XVIIIa – eastern part (St John Hope and Fox 1898a, 110–20).
1898	Excavation of Insula XVIIIb – western part (St John Hope and Fox 1899a).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Insula XVIII: a note (Fox 1899b, 85–6); lectures (St John Hope and Fox 1898b; 1899b).

DESCRIPTION

Insula XVIII is wider than many, largely because the Antiquaries' excavations failed to find traces of the north–south road which divides it. Their trenches can be seen in the geophysics crossing its location, but they failed to notice it. Nonetheless, traces of the road can be seen on the aerial photographic plot and also in the geophysics, although it is not as clear as elsewhere. Boon divided the space into XVIIIa and b, and his nomenclature has been followed here.

Insula XVIIIa

Insula XVIIIa was dominated by two buildings along the northern street frontage, and a third house situated further south close to the South Gate.

House XVIII.1 in the north-eastern corner of the block is a sequence of at least three buildings on the same spot. All three appeared to have a predominantly east–west alignment, the latest

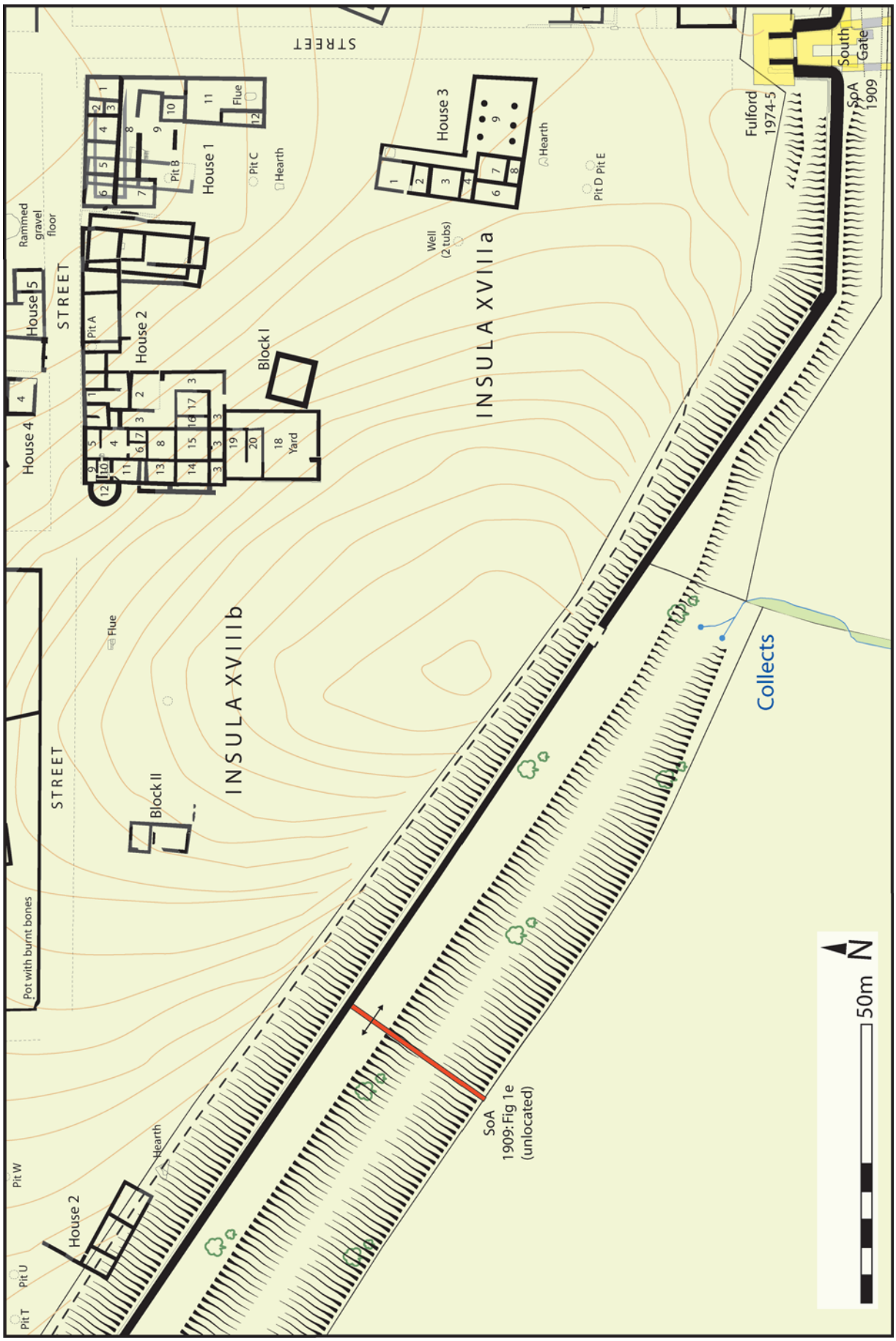

FIG. 5.47. Interior 15 – Antiquaries' plans and modern topography.

FIG. 5.48. Interior 15 – fluxgate gradiometry image (± 7 nT).

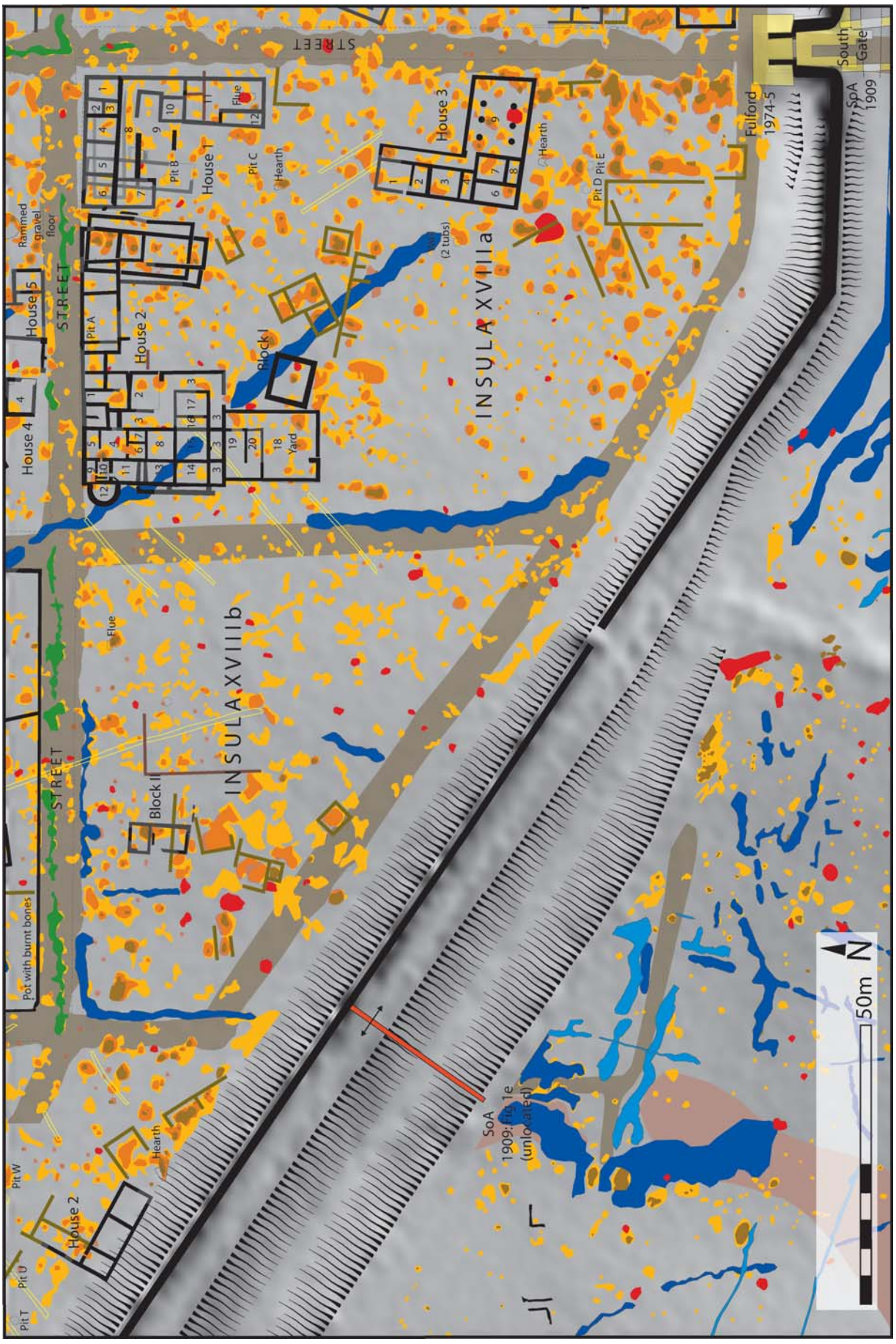

FIG. 5.49. Interior 15 – interpretative plan.

incarnation having a portico on its south-facing side (a later single-corridor building, Berry 1951). Two fragmentary mosaics were found which were stylistically late second or third century in date, but it was unclear which phase building they belonged to (Mosaics 321.55–6, Neal and Cosh 2009, 219). See also Perring (2002, 67).

House XVIII.2 in the north-west corner also has a multi-phase plan, though in origin appears to be a double row of rooms with a portico and a projecting room added to the east. Fragments of a mosaic were found in this projecting room (Mosaic 321.57, Neal and Cosh 2009, 219). The building underwent significant additions with what is assumed to be a large yard extending to the south, and an additional range to the north-east along the east–west road. One notable find from it was a late New Forest ware pot with the graffito VI= measuring its $6^{1}/_{6}$ *modii* capacity (Boon 1974, 196–7). Block XVIII.I was a simple rectangular block tucked behind House XVIII.2 and on a different alignment. A strong diagonal feature appears to lie underneath both this and the house.

House XVIII.3 was identified as a mill-house with the potential settings for six millstones. Only one fragment of quern was actually found there, but the six circular foundations, each *c.* 1.0–1.3 m in diameter and 1.2 m high, did look significantly more substantial than a set of post settings for a hall would need to be; the rubble matrix was also thought too unstable to support major columns or timbers. An upper stone of a mill, 0.7 m diameter, was found in Insula XIV, demonstrating that such large stones were in operation in the town (St John Hope and Fox 1898a, 113–14). This mill-house was close to the South Gate; this and the East Gate were the main entrances leading in from the lower fields which were more likely to be used for arable. Ultimately without millstones the identification is problematic, and post-pads at 1.3 m diameter are not impossible. Fox (1948, 175) pointed out the residential wing was 9 degrees off the street-grid, so suggested it was early in date. See also Boon (1974, adjustment to align to grid 47, 305, L-shaped houses 192, flour milling 289) and MacMahon (2003, 65).

South of House XVIII.3 and closer to the South Gate, there were traces of several additional large rectangular buildings in the geophysics, though no interior divisions could be identified within them.

Nothing was apparently found in the area south of House XVIII.2, and west of House XVIII.3 'nor was even a rubbish pit met with'. The geophysics also show an area relatively clear of features. A discussion of the houses was included in Walthew's article on buildings and measurement units (Walthew 1987, 204).

Insula XVIIIb

Block XVIII.II (unnumbered originally) lay in the north-west of the insula and was excavated in 1898. It was a simple two-room block.

NOTABLE FINDS

From Insula XVIII came a small leaf cut out of thick gold foil, perhaps for attaching to a dress. From either Insula XVII or XVIII (no distinctions were made in find locations during the Antiquaries' eighth season) there came a fragment of a large Corinthian capital, part of a moulded cornice, the base of a square pedestal, a piece of a large stone ball, part of a terracotta antefix, three inscribed wooden tubs from wells and three incised tiles. In terms of metalwork two enamelled plate-brooches, a bow-brooch with a sliding ring on the pin, several chains and a staff head(?) with the head of an eagle and perhaps a swan neck were found. From a fourth-century well came a bronze steelyard weight.

INTERIOR 16: INSULA VIII (FIGS 5.50–52)

HISTORY OF INTERVENTIONS

c. 1714	Excavation of a large 'miserably broken' mosaic (Hearne 1813, 189).
1833	Coles excavated the *Mansio* bathhouse and nearby structures (Kempe 1833).
1876–80	The *Mansio*, excavated as 'Block IX' by Joyce, Monro and Langshaw (Hilton Price 1887).
1892–3	Excavation of Insula VIII (Fox and St John Hope 1894, 210–32).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

1833 excavations: newspapers (Coles 1833; Kempe 1833; S.H. 1833); an article (Wright and Fairholt 1845, 152).
Joyce *et al*: a note (Fox 1899b, 83–4).
The Antiquaries: a note (Le Schonix 1894); a discussion (Anon. 1894); a lecture (Fox *et al.* 1895b).

DESCRIPTION

Insula VIII

Somewhere close to the South Gate was the location of some early excavations which had taken place in the 1710s; it may have been these excavations that first brought Coles then Joyce to dig what is now known to us as the *Mansio*. Further buildings to the west were explored by the Antiquaries as well. Apart from the main street-grid, which left this as a 'double' insula block, there was also a suggestion of a road, 8.2 m wide, running to the south behind the Town Wall (Fox and St John Hope 1894, 210).

House VIII.1 was a north–south range with a portico on the eastern side with a central room added in the middle. Significant additions were added on to the east, particularly a range to the south, creating a courtyard (Mosaics 321.31–34, Neal and Cosh 2009, 206–7). Mosaic 321.31 may be the 'large miserably broken mosaic' excavated shortly before 1714.

Walthew used this house as an example to illustrate the notion that villas and town-houses were sometimes similar, in that they often had their best decorated rooms in their later wings (Walthew 1975, 202); however, it is difficult to see this qualitative difference between the original section and the wing in this particular case. Perring (2002, 49–51, 156, 188) used the house as an example to illustrate the guiding principles of elite architecture, including providing an interpretive access-map for this building in his discussion of the function of porticoes and corridors in Romano-British architecture.

House VIII.2 was adjacent to House 1. It may be a totally separate structure, or it may be an eastern range added on to House VIII.1. It is described as a later double-corridor house by Berry (1951), although the western corridor, as is often the case, has been divided up into several rooms, leaving only the open portico and pavilions on the eastern side. Walthew observed that this kind of subdivision of one corridor was a frequent development at villas, citing Farningham and Ditchley as examples (Walthew 1975, 199). See also Boon (1974, layout 95, 193, shrine 161, plan 189, entrance 192, reception-room 194, porch columns 200).

House VIII.3 was represented by the remains of several walls at a significant angle to the street-grid. The house-form is unclear, as one element looks like a south-south-west-facing portico and attached pavilion, whereas another fragment on a different alignment also looks like it might have a south-south-west-facing portico. No details were provided.

House VIII.4 started as an east–west-aligned block with a portico added to the southern side, to which was added an additional range to the east. Evidence of possible metal-working came from Room 9. One sample appeared on analysis to be argentiferous lead which had not yet had the silver taken out of it; while the other appeared to be the result of smelting together lead and

copper ores, which Professor Roberts-Austin relayed was a way used since the sixteenth century to remove silver from copper alloys (Cox 1895, 37). See also Boon (1974, hearth 195, silver-working 275).

House VIII.unnumbered, lies south-west of *Mansio*; no details are known.

The *'Mansio'*

Excavation history

The Revd John Coles excavated four or five buildings at Silchester in 1833 after remains were dug up by workmen putting a drain in the field. Alas only plans of the baths were published, believed to be those belonging to the *Mansio*. Excavations did not last long and were discontinued after a complaint to the first Duke of Wellington about the damage being done to the land.

In some reports there was confusion about the location of these excavations which remains to this day. Early descriptions state them as being south-west of the church where the *Mansio* bathhouse is indeed located; however, a plan of the site by Kempe (1838) placed them west of the church, which was then popularly reproduced by Wright and Fairholt (1845, 152). Maclauchlan made efforts to clarify the situation when he drew up his map: 'The position of the bath has been fixed on the map by the concurrent testimony of three persons residing at Silchester, who saw the excavation open. Though the rector had carefully fenced in a way to the remains, so as to protect the farmer's crops, such was the destruction committed by persons crossing the fields in every direction, that at the earnest request of the tenant, the proprietor desired that the foundations should be covered in' (note 7, Maclauchlan 1851, 230). Hilton Price also obtained similar local testimony to confirm the baths' location, as well as the location of another excavation by Coles just to the north-east, which had been marked on some plans as the 'site of Roman Villa' (Hilton Price 1887, 275).

Excavation of the *Mansio* proper commenced under Joyce in 1875, and after his death was continued by Langshaw and Monro, although the building was covered in about 1880 without it having really been completed, but not before Hilton-Price had commissioned a detailed survey of it by the Ordnance Survey (Boon 1974, 27). The exploration of the baths continued a little longer into 1881 (Fox 1899b, 83–4). The Antiquaries decided to rely on the earlier plan, rather than re-excavating the building.

Description

Corridors on three sides of a courtyard were backed by a series of chambers; unifying the building there was also a corridor on the outside. In the lateral range there were three rooms with hypocausts. To the south-east were the baths, which had both their own water supply (a spring in the north-west corner of Room 3 of the baths and another on the north side of Room 4) and wastewater outflow which went through the Town Wall (Fox and St John Hope 1894, 231–2). Boon noted the duplication of rooms in the bath-suite and suggested that the baths had been divided to provide for both sexes (Boon 1974, 138–44). While some red tesserae were found, there were no substantive remains of mosaics (Mosaics 321.35–36, Neal and Cosh 2009, 206–7).

Within the baths were found a human skeleton and a coin hoard: 'in the natatio, or water-bath, was found a human skeleton, and in the leaden pipe connected with it, upwards of two hundred Roman coins. The body could never have been deposited in such a spot in the ordinary mode of sepulchre. What then is the obvious inference? When Silchester was stormed, one of its inhabitants had sought refuge in this place, hastily throwing his treasure, for concealment, into the bath; here he fell by the Saxon sword, or was crushed under the falling ruins of the building; a faithful dog, whose skull was discovered near him, had shared his fate' (Kempe 1833, 125).

Interpretation

The interpretation of the building has varied through time. Generally the lack of hypocausts has militated against seeing the building as being a private residence; also the size of the bath-block

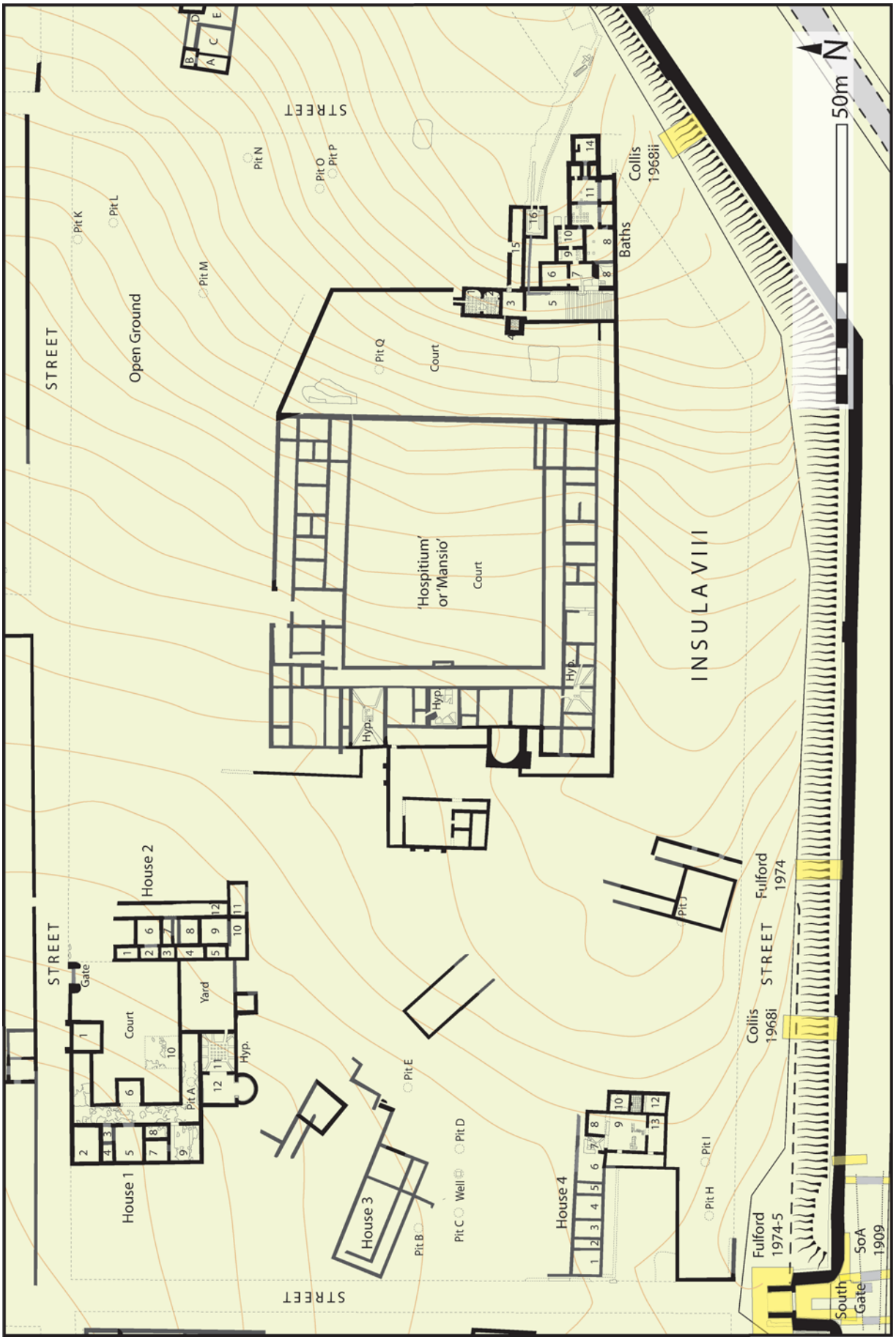

FIG. 5.50. Interior 16 – Antiquaries' plans and modern topography.

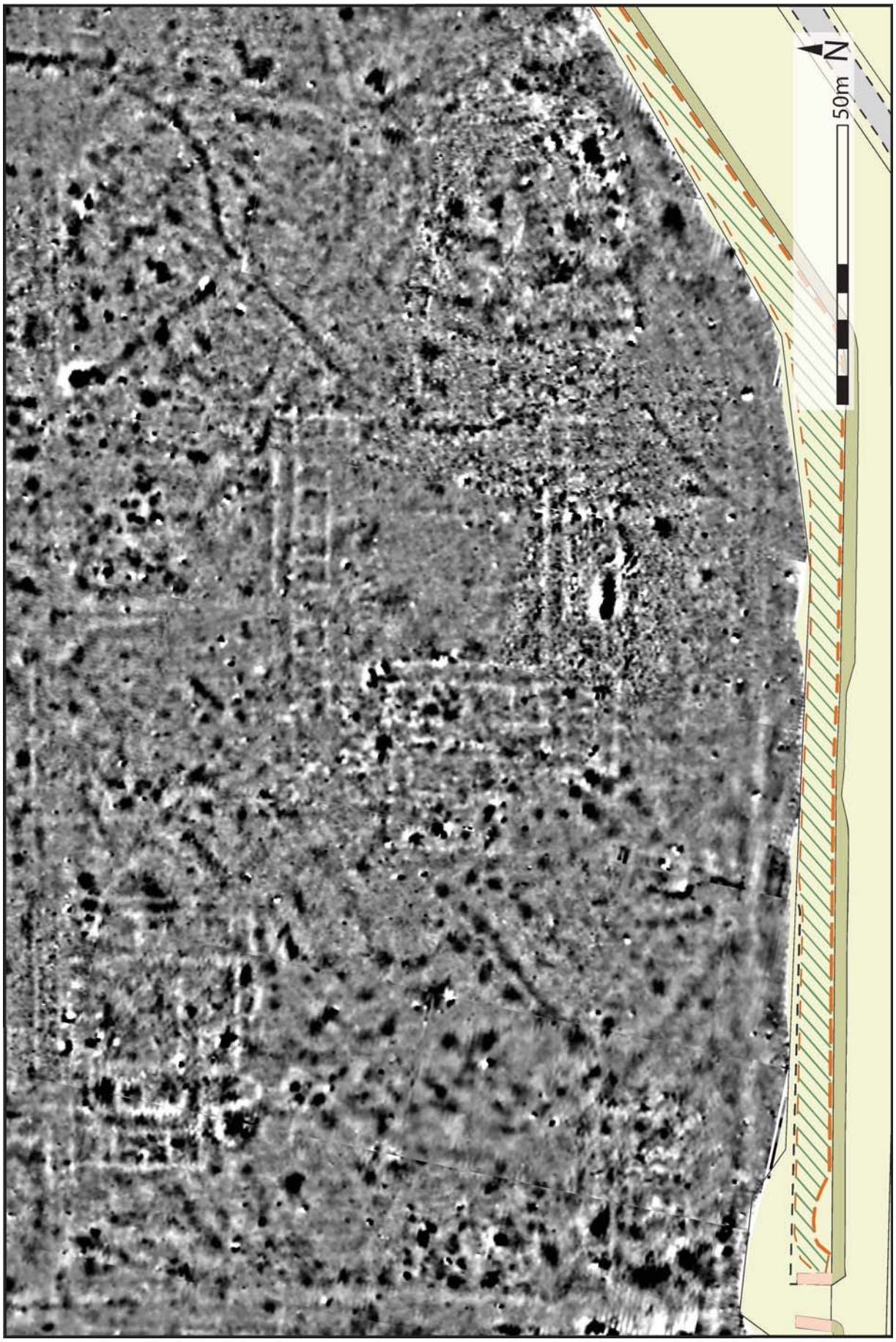

FIG. 5.51. Interior 16 – fluxgate gradiometry image (± 7 nT).

FIG. 5.52. Interior 16 – interpretative plan.

was seen as too large just for private use. So, Joyce thought it might be a barrack for cavalry. By the time the Antiquaries re-investigated the site they wondered if it might not be a *hospitium* (Fox and St John Hope 1894, 211, 224). The use of this term continued for a long while (e.g. Fox 1948, 177); however, the use of the associated term for a guest-house, *mansio*, gained greater currency through the later twentieth century. Its closest parallels are the *mansiones* at Caerwent, Chelmsford, Kempton and Heddernheim. Their interpretation as inns serving the *cursus publicus* would explain the multiplicity of rooms which are poorly decorated, the twin-suite baths with sections for each sex, the large latrine and the granary. Positioning close to the Town Wall was also seen as indicative (easy access to paddocks). Boon, however, preferred the slightly more flexible word inn or *praetorium* (Boon 1974). Contrasting views of the interpretation of *mansiones* and the *cursus publicus* can be found in Black (1995) examining Britain, and Corsi (2000) looking at the evidence from Italy. See also Liversidge (1968, 59–60) and a reconstruction by de la Bédoyère (1991, 111).

NOTABLE FINDS

None reported.

INTERIOR 17: INSULAE XXXIIIa (PART) AND XXXIIIb (FIGS 5.53–55)

HISTORY OF INTERVENTIONS

c. 1833 'Villa' excavation indicated (Joyce 1881b).
1903–4 Excavation of Insula XXXIII (St John Hope and Fox 1905a).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

A visit in 1903 (Ditchfield 1904).

DESCRIPTION

Insula XXXIIIb

Insula XXXIIIb is triangular in shape in the south-east corner of the town. One detail of the road-system is worth noting: the curved street bending round in the south of the insula appears to be respecting the interior of the Inner Earthwork, and it is positioned as if it was just inside the bank (the feature in the geophysics represents the ditch). The implication would be that this section of the earthwork remained open longer than the section Boon excavated in Insulae XIIa/XXIII, at least into the Flavian period when the other well-metalled roads were established.

Coles excavated in this area in 1833. Apart from a fragment of the *Mansio* bathhouse, he also dug parts of 'a villa', though no plan of it was ever published. Local memory placed it just to the east of the *Mansio*, though precisely which of the buildings here is unclear. None of the Antiquaries' excavation reports noted disturbed ground or modern finds.

House XXXIII.1 was a very partial plan perhaps of a corridor house, though the details are uncertain.

For House XXXIII.2 see Interior Sheet 14.

Block XXXIII.I is a large rectangular room with a narrow corridor attached suggestive of an incomplete plan. It was aligned and built on the infill of the Inner Earthwork which the road also curves around to respect.

Block XXXIII.V was a simple square structure nestled up close to the Town Wall, but at an angle to it. It was set behind the remains of a much larger new house on a different alignment which was revealed in the geophysical data. Only elements of the plan can be made out, but it was aligned to the southerly section of the curved street and features continued back onto what

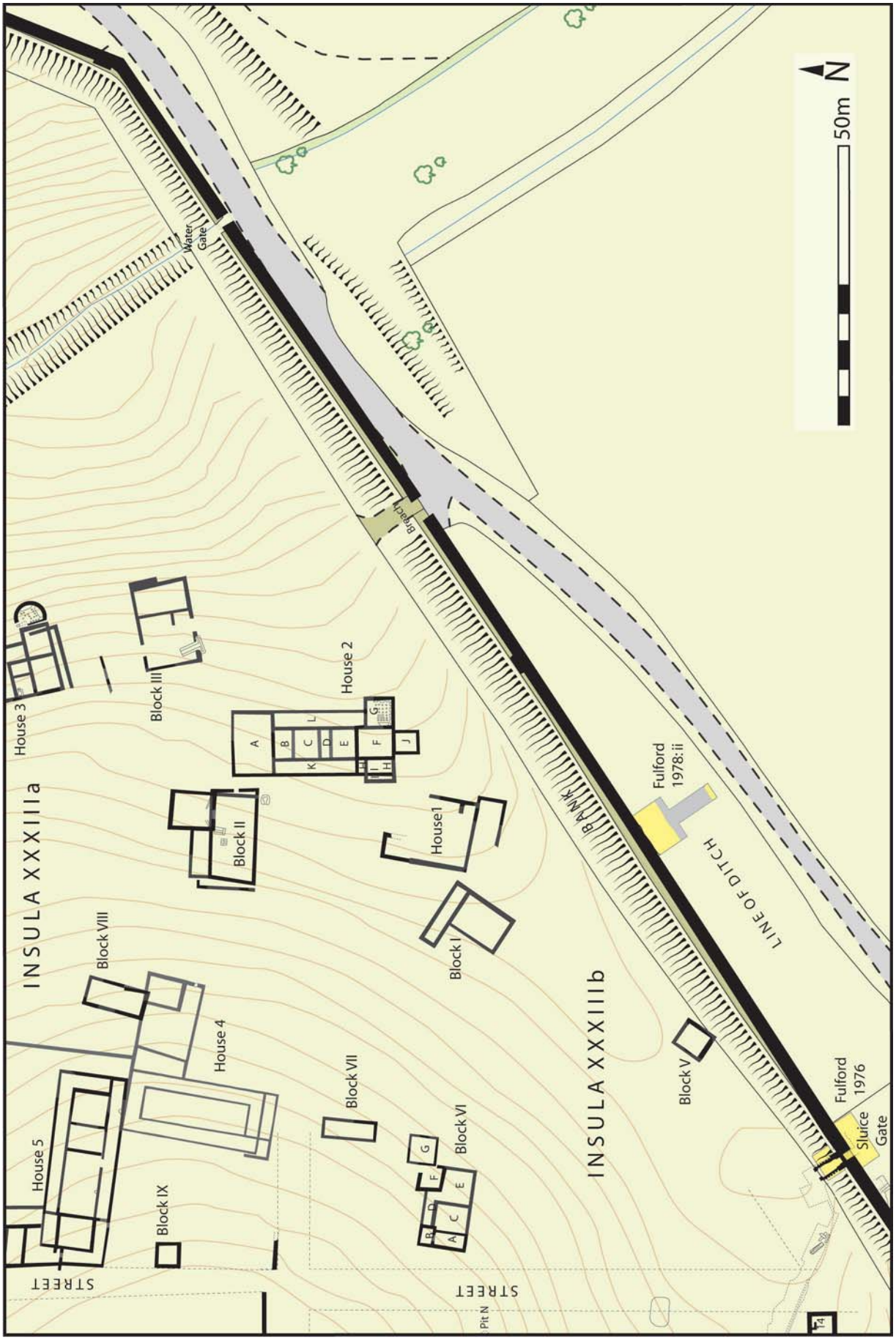

FIG. 5.53. Interior 17 – Antiquaries' plans and modern topography.

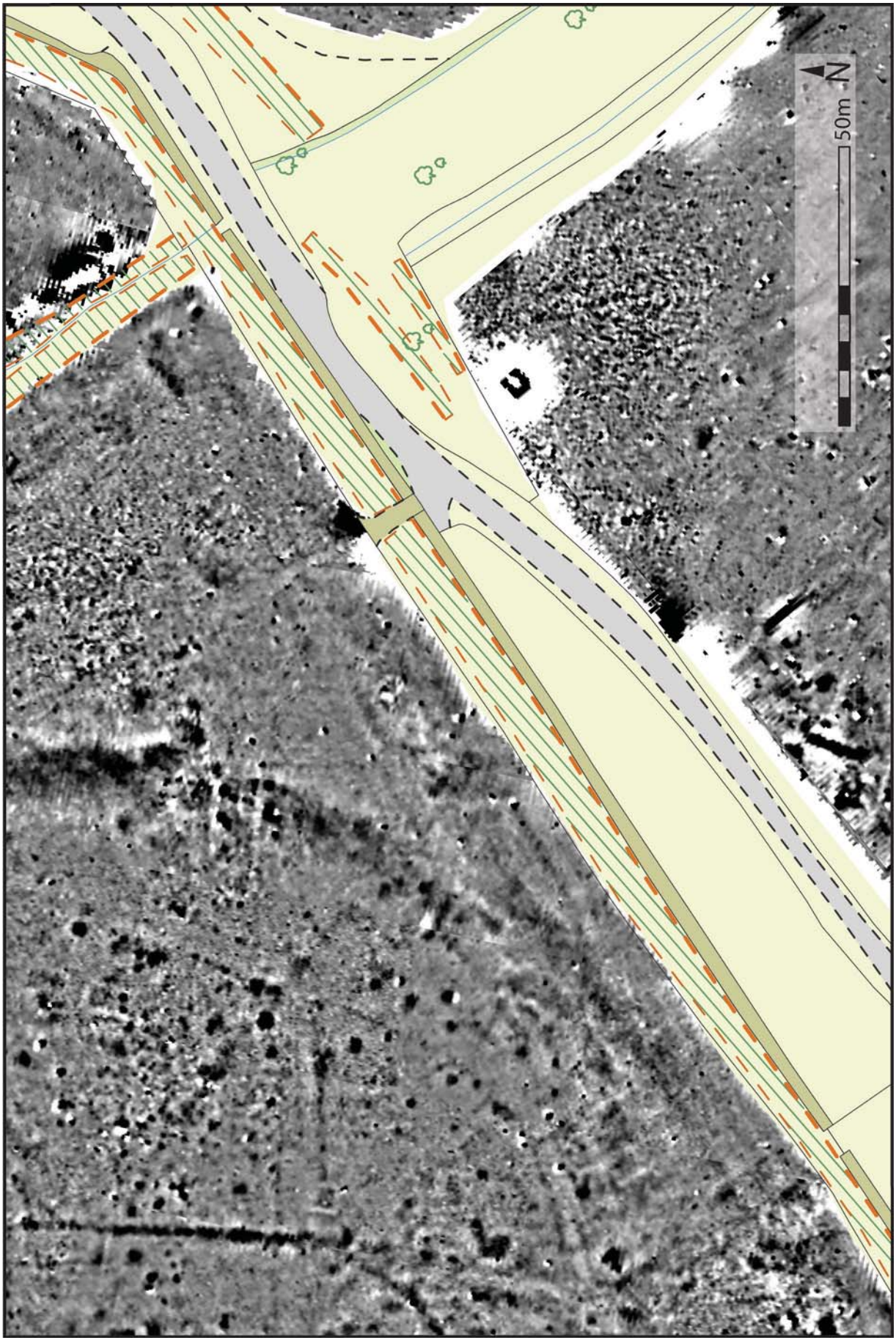

FIG. 5.54. Interior 17 – fluxgate gradiometry image (± 7 nT).

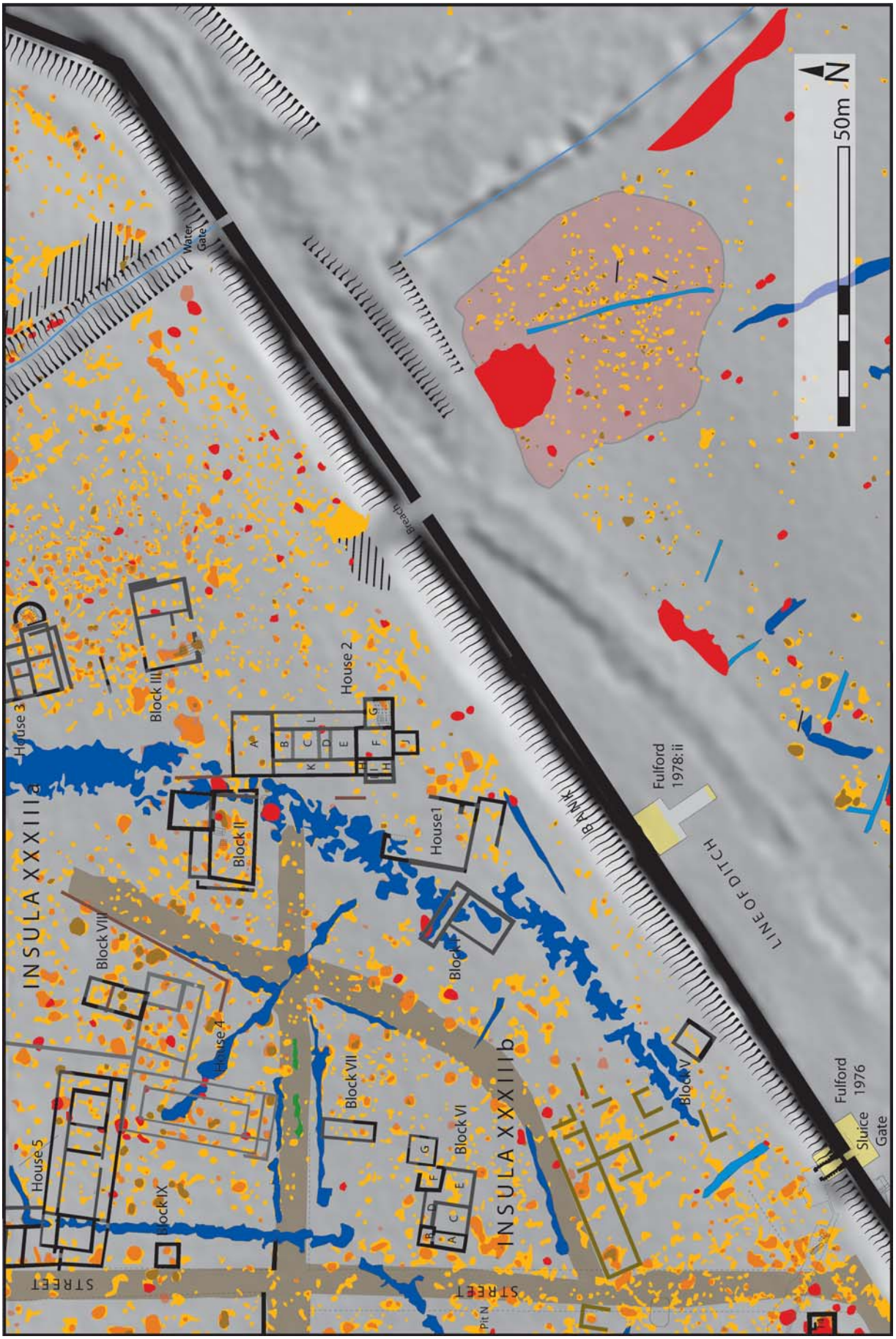

FIG. 5.55. Interior 17 – interpretative plan.

would have been the Inner Earthwork bank at one time, so this had presumably been levelled by the time the house was built.

Block XXXIII.VI was described as an oblong block of chambers with a structural sequence noted by the Antiquaries, described as 'a workshop or factory of some sort'.

Block XXXIII.VII was a simple rectangular structure, perpendicular to Block XXXIII.VI just to the south.

NOTABLE FINDS

None reported.

CHAPTER 6

MAPPING THE EXTERIOR

INTRODUCTION

Whereas the interior has the Insula numbers to reference locations, the exterior has field-numbers. These have changed over the years, as have the field-boundaries themselves. The version here comes from the OS 1:2500 1969 map series. There are two numbered LP 0006 on either side of a parish boundary, so they have been identified as a and b.

The summary below lists the fields from which finds or features have been identified; it indicates those which have been covered by fluxgate gradiometry and fieldwalked; and it lists which Exterior sheets the fields appear on (TABLE 6.1).

KEY

The text starts with a statement of the fieldwalking coverage across both Mark Corney's programme between 1969 and 1981 (Corney 1984) and the University of Reading Student Projects Survey (Ford and Hopkins 2011). Since some fields were walked on multiple occasions a sense of the scale of investigation is useful to assess how significant the finds are. This is followed

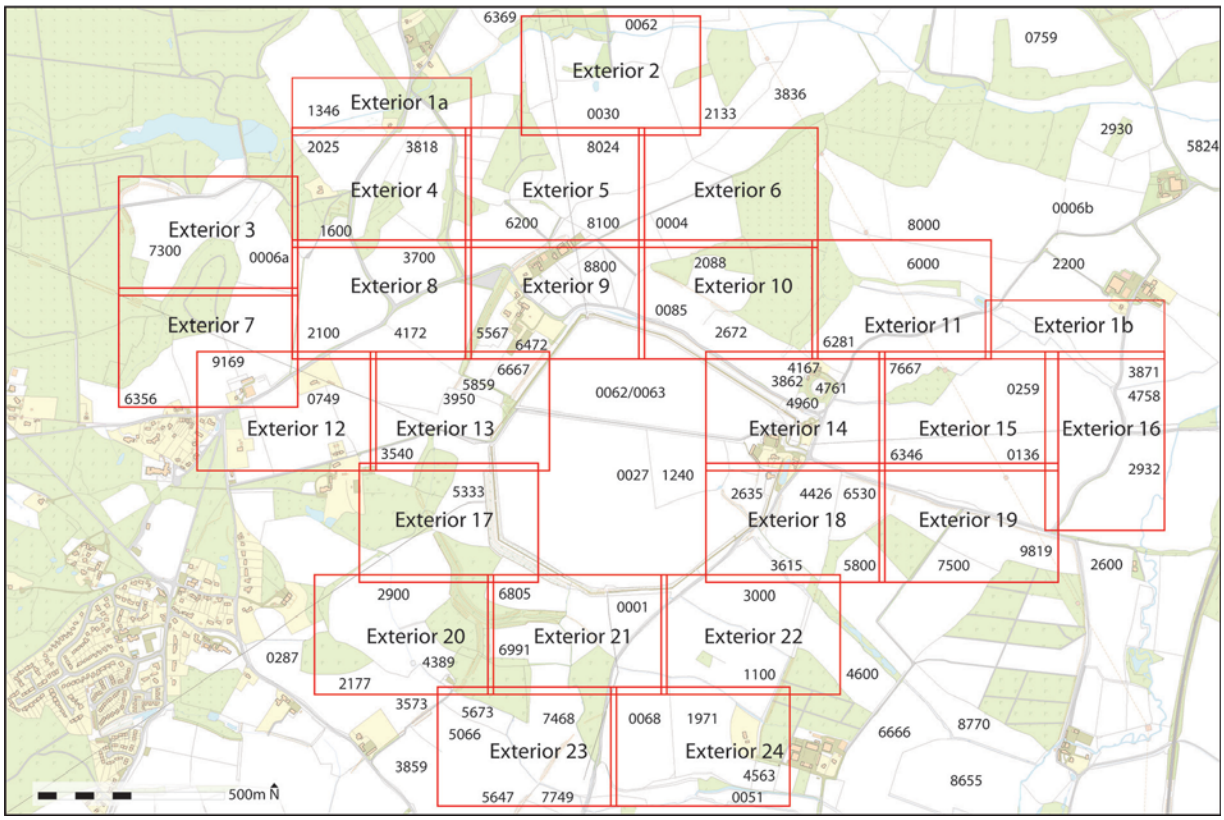

FIG. 6.1. Index to Exterior Sheets.

TABLE 6.1. CONCORDANCE OF LAND PARCEL NUMBERS AND EXTERIOR MAP SHEET

Parcel no.	Sheet	Mag?	Fieldwalked?
LP 0001	Exterior 21 and 22	Yes	Corney
LP 0004	Exterior 5, 6, 9 and 10	Yes	-
LP 0006a	Exterior 3, 7 and 8	Yes	UoRSP
LP 0006b	Exterior 11	-	UoRSP
LP 0030	Exterior 2, 5 and 6	Yes	-
LP 0051	Exterior 24	-	-
LP 0041	Exterior 24	-	Corney and UoRSP
LP 0062	Exterior 2	-	UoRSP
LP 0068	Exterior 21, 23 and 24	Yes	Corney and UoRSP
LP 0085	Exterior 9 and 10	Yes	-
LP 0136	Exterior 15, 16 and 19	Yes	Corney and UoRSP
LP 0259	Exterior 1b, 15 and16	Yes	Corney and UoSRP
LP 0287	Shown on index sheet	-	UoRSP
LP 0749	Exterior 7 and 12	Yes	-
LP 0759	Shown on index sheet	-	UoRSP
LP 1100	Exterior 21, 22 and 24	Yes	Corney and UoRSP
LP 1346	Exterior 1a and 4	-	-
LP 1600	Exterior 4 and 8	Yes	Corney
LP 1971	Exterior 22 and 24	Yes	Corney and UoRSP
LP 2025	Exterior 1a and 4	Yes	-
LP 2088	Exterior 10	Yes	-
LP 2100	Exterior 8 and 12	Yes	Corney and UoRSP
LP 2133	Exterior 2 and 6	-	-
LP 2177	Exterior 20	-	UoRSP
LP 2200	Exterior 1b and 16	-	-
LP 2600	Shown on index sheet	-	-
LP 2672	Exterior 10 and 14	Yes	-
LP 2900	Exterior 17 and 20	Yes	Corney and UoRSP
LP 2930	Shown on index sheet	-	-
LP 2932	Exterior 16	-	Corney
LP 3000	Exterior 18 and 22	Yes	Corney and UoRSP
LP 3573	Exterior 20	-	UoRSP
LP 3615	Exterior 18 and 22	-	-
LP 3540	Exterior 12, 13 and 17	Yes	-
LP 3700	Exterior 4 and 8	Yes	Corney
LP 3818	Exterior 1a and 4	Yes	-
LP 3836	Exterior 6	-	-
LP 3859	Exterior 23	-	UoRSP
LP 3862	Exterior 14	-	Corney
LP 3871	Exterior 16	-	UoRSP
LP 3950	Exterior 12 and 13	Yes	Corney
LP 4167	Exterior 10 and 14	Yes	-
LP 4172	Exterior 8, 9, 12 and 13	Yes	Corney and UoRSP

TABLE 6.1 (cont.). CONCORDANCE OF LAND PARCEL NUMBERS AND EXTERIOR MAP SHEET

Parcel no.	Sheet	Mag?	Fieldwalked?
LP 4389	Exterior 20	Yes	-
LP 4426	Exterior 18	Yes	Corney and UoRSP
LP 4563	Exterior 24	Yes	Corney and UoRSP
LP 4600	Exterior 22	-	Corney and UoRSP
LP 4758	Exterior 16	-	UoRSP
LP 4761	Exterior 14	Yes	Corney
LP 4960	Exterior 14	Yes	Corney
LP 5066	Exterior 23	-	Corney and UoRSP
LP 5333	Exterior 13 and 17	Yes	Corney and UoRSP
LP 5567	Exterior 9 and 13	Yes	UoRSP
LP 5647	Exterior 23	-	Corney and UoRSP
LP 5673	Exterior 23	Yes	-
LP 5800	Exterior 18 and 22	-	Corney and UoRSP
LP 5824	Shown on index sheet	-	UoRSP
LP 5859	Exterior 13	Yes	-
LP 6000	Exterior 11	-	UoRSP
LP 6200	Exterior 4, 5, 8 and 9	Yes	Corney
LP 6281	Exterior 10, 11 and 14	Yes	Corney
LP 6346	Exterior 14, 15, 18 and 19	Yes	Corney and UoRSP
LP 6356	Exterior 7	-	-
LP 6369	Exterior 2	-	UoRSP
LP 6530	Exterior 18 and 19	Yes	Corney and UoRSP
LP 6472	Exterior 9 and 13	Yes	-
LP 6666	Shown on index sheet	-	Corney
LP 6667	Exterior 9 and 13	Yes	-
LP 6805	Exterior 17, 20 and 21	Yes	Corney
LP 6991	Exterior 21	Yes	Corney
LP 7300	Exterior 3 and 7	Yes	-
LP 7468	Exterior 21 and 23	Yes	-
LP 7500	Exterior 19	-	Corney
LP 7667	Exterior 1b, 11, 14, and 15	Yes	UoRSP
LP 7749	Exterior 23	-	Corney and UoRSP
LP 8000	Exterior 11	-	UoRSP
LP 8024	Exterior 2 and 5	Yes	-
LP 8100	Exterior 5, 6 and 9	Yes	-
LP 8655	Shown on index sheet	-	Corney
LP 8770	Shown on index sheet	-	UoRSP
LP 8800	Exterior 5 and 9	Yes	-
LP 9169	Exterior 7 and 12	Yes	Corney
LP 9819	Exterior 19	-	Corney and UoRSP

by any excavations or watching-briefs outside the Town Walls. A narrative is then constructed itemising the key features of each area. Reference is made to aerial photographs, LiDAR data, excavations, fieldwalking, and other finds that have been reported. This section is intended to provide the data, so while there is a small amount of interpretation included, where it helps explain the evaluation of the evidence, most is left to the interpretative essays in Part 3. Where reference is made to Corney's ceramic scatters, it should be noted that more detail is available in the original report, and that in the way he quantified material he made no distinction between pre- and post-conquest Silchester ware, it was all attributed to Period 2 (post-conquest) which will lead to an under-estimation of pre-conquest distributions.

On the imagery the aerial photographic plots on the first sheet are adapted from the RCHME plot, although in some areas where the features clearly related to geophysical anomalies, their positioning was adjusted to correlate better (often only by a few metres, but on one occasion by 25 m, in a large field). The fieldwalking scatters represent Corney's, though his original publication has more detail showing gradations of density rather than one solid area.

The fluxgate gradiometry has been shown at ± 2 nT for both the interior and exterior, so it will be noticed that the interior appears a lot noisier than in the 'Interior' images which are shown at a ± 7 nT range.

The geophysics interpretative plot is shown against a background of the Environment Agency LiDAR data, which is in the main 1 m resolution, though for a small part 2 m, and in a large part of Exterior 12 is missing (see FIG. 3.14). Annotation numbers on these images relate to the numbers in square brackets and associated comments in the text.

EXTERIOR 1a (FIGS 6.2–4)

FIELDWALKING

None of these fields have been walked by Corney or UoRSP.

KEY FEATURES

In this peripheral area of the survey there is nothing of particular note except for a cropmark which may be a *c.* 30 m diameter ring-ditch. An old north–south field-boundary shows up in the LiDAR within the woodland [1].

EXTERIOR 1b (FIGS 6.2–4)

FIELDWALKING

LP 0259: Corney walked over 3–5 seasons, as did the UoRSP, with no significant finds from the part on this sheet.

KEY FEATURES

In this area a number of former field-boundaries have been ploughed out; the former subdivision of LP 0259 showing clearly on aerial photographs, earlier cartography and the geophysics [1]. The modern water main shows clearly passing through, but there was no watching-brief in this section [2].

There are traces in the geophysics of a line parallel to the division between LP 7667 and LP 0259, which makes a narrow former lane or droveway *c.* 10 m wide. This width is also seen as a slight ledge on the LiDAR data. However, no lane shows up on any early cartography [3].

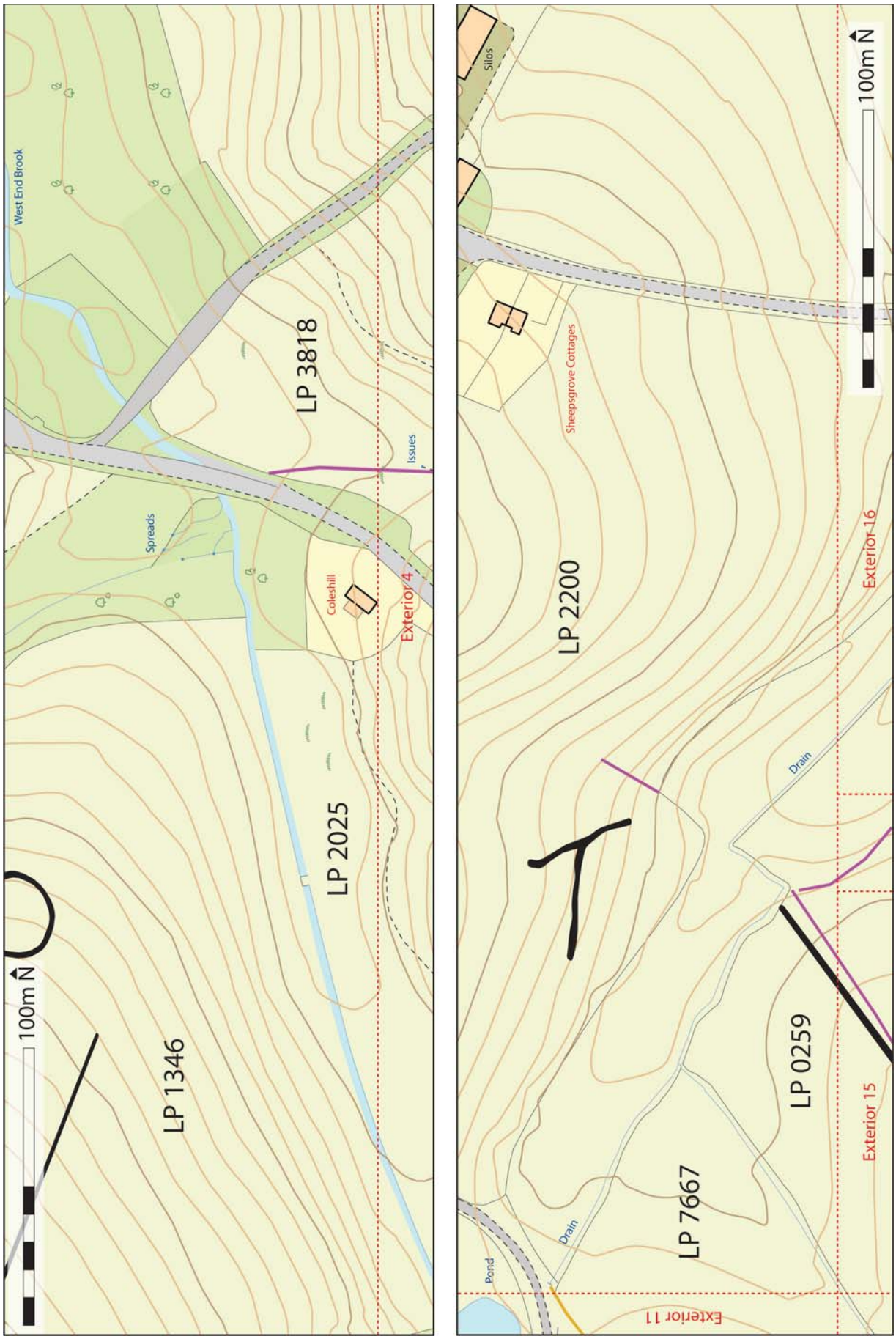

FIG. 6.2. Exterior 1a and 1b – excavations, aerial photography and fieldwalking.

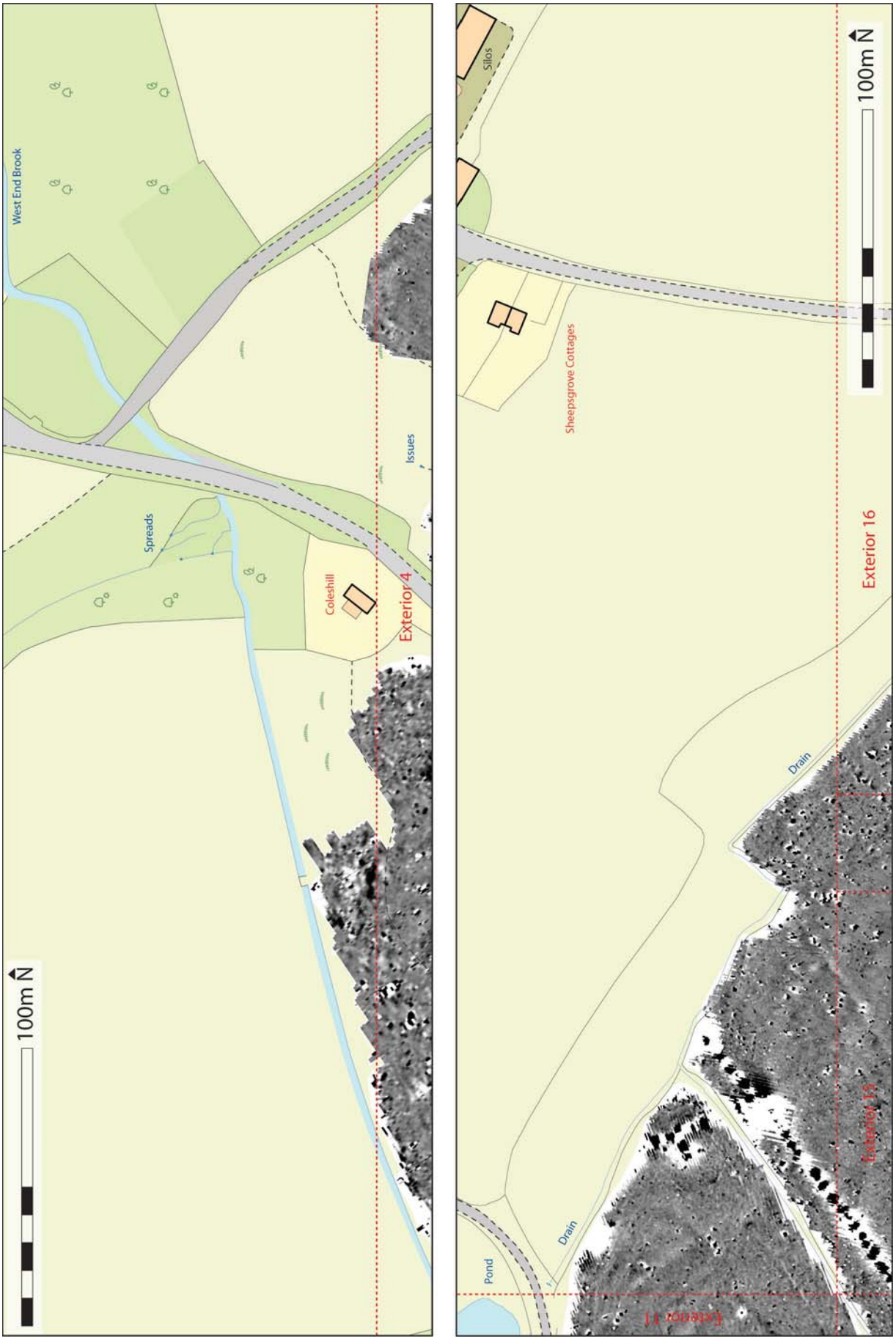

FIG. 6.3. Exterior 1a and 1b – fluxgate gradiometry (± 2 nT).

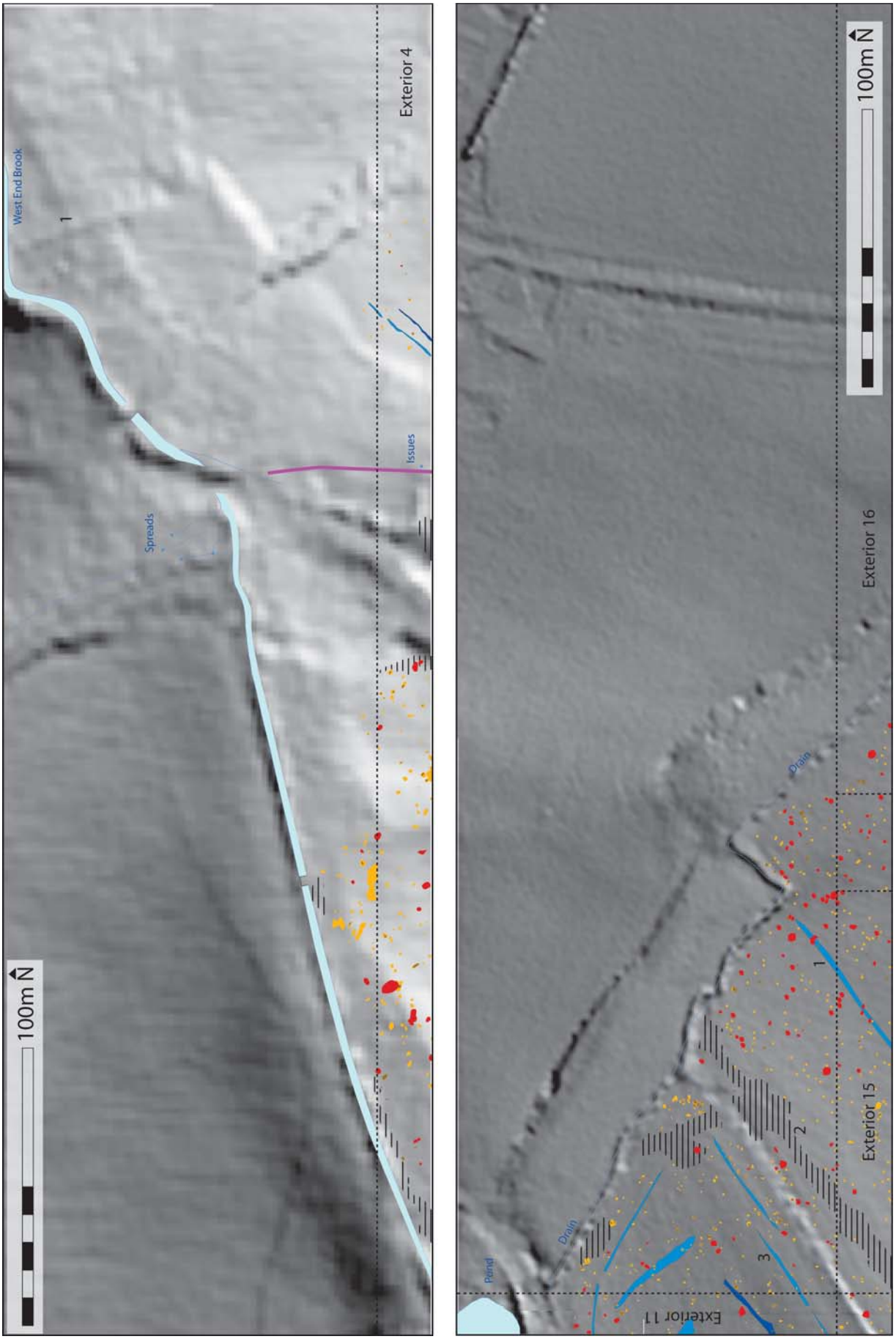

FIG. 6.4. Exterior 1a and 1b – geophysics interpretation on top of LiDAR data.

EXTERIOR 2 (FIGS 6.5–7)

FIELDWALKING

LP 0062 and 6369: UoRSP surveyed north of the brook; two medieval sherds came from 0062, and a few fragments of Roman or medieval tile.

KEY FEATURES

This sheet covers the area down the northern slope of the gravel terrace to West End Brook. Dominant within the field on the fluxgate gradiometry results is a large feature which was within living memory a gravel-pit backfilled with rubbish [1].

A number of field-boundaries have long since been removed, and the fluxgate gradiometry data clearly show that the lane running down the last bit of the slope, across West End Brook and then up to Lovegrove's Farm (formerly Hall's Farm), clearly once extended further south, shown faintly on the OS first series [2]. There are traces of probable field-drains running off this lane down towards the north-west [3].

Some of the strong field-system boundaries which showed in the aerial photographic coverage were ephemeral in the geophysics; this is possibly a function of the fluxgate gradiometry being less effective on the clay dominating the lower slopes.

The key antique feature here is the road north to Dorchester-on-Thames which does not show on the fluxgate gradiometry since compacted gravel overlying gravel of the same origin was never likely to appear. Side ditches are only likely to be revealed if anthropogenic rubbish had been incorporated, but this is only the case closer to the town. However, a section of resistivity was conducted just to the south of the gravel-pit/rubbish dump which dominated LP 8024, and this confirmed its presence on the east side of the OS line. The gravel-pit marked its western edge (the compacted gravel of the road presumably being too hard to dig through) [4]. There are no obvious traces of enclosures either side of the road as there are on the road west.

In the north-east corner of LP 0030, down the slope towards the brook, can be seen a slight mottle effect in the background fluxgate gradiometry [5]. While on this scale it is hard to tell, this is the kind of response that was seen to the south-west of the town below Rampier and Dicker's Copse. Here it was suggested this represented clay-pits (see Exterior Sheets 20 and 23), and the same clays start to appear here as well on the British Geological survey.

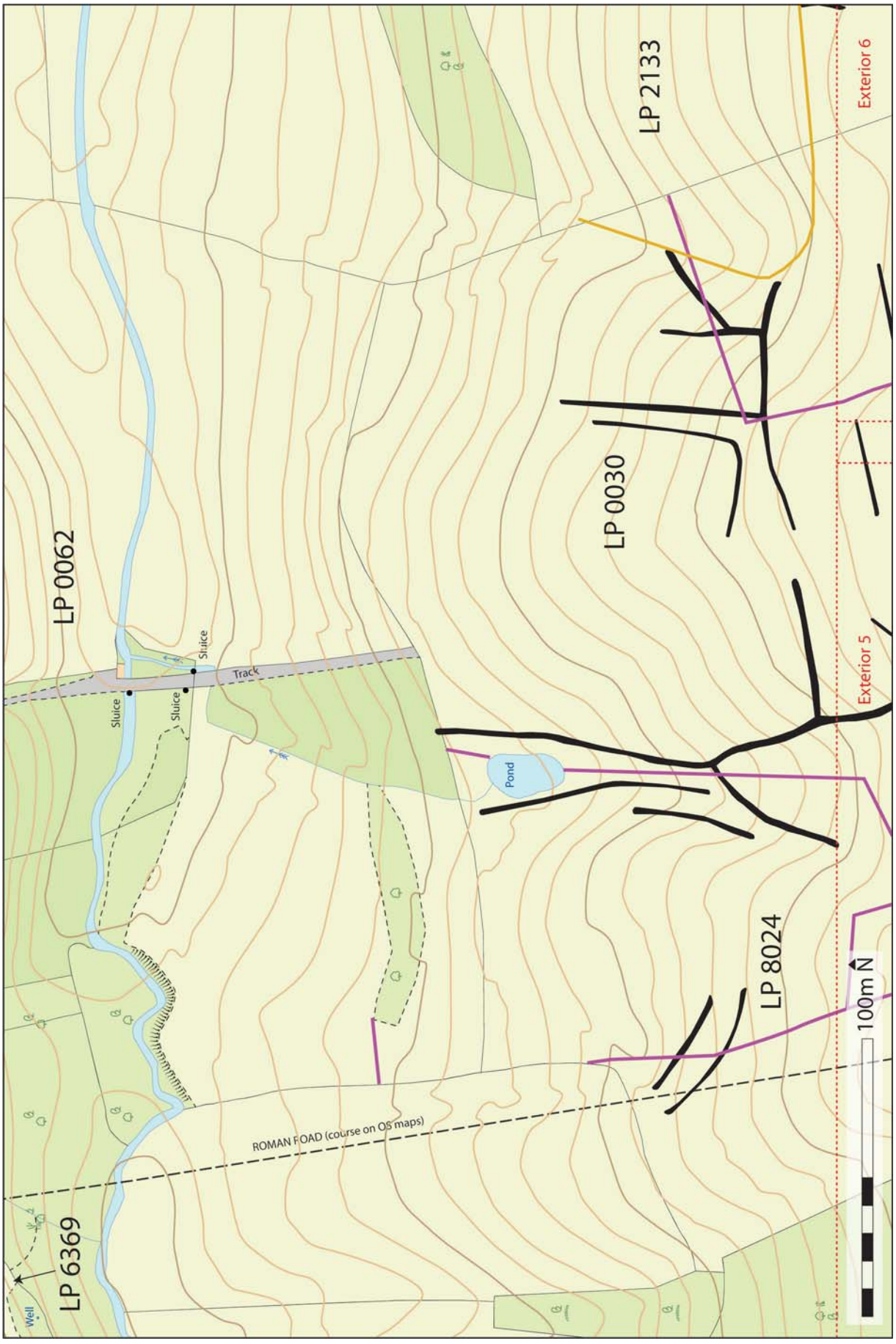

FIG. 6.5. Exterior 2 – excavations, aerial photography and fieldwalking.

FIG. 6.6. Exterior 2 – fluxgate gradiometry (± 2 nT).

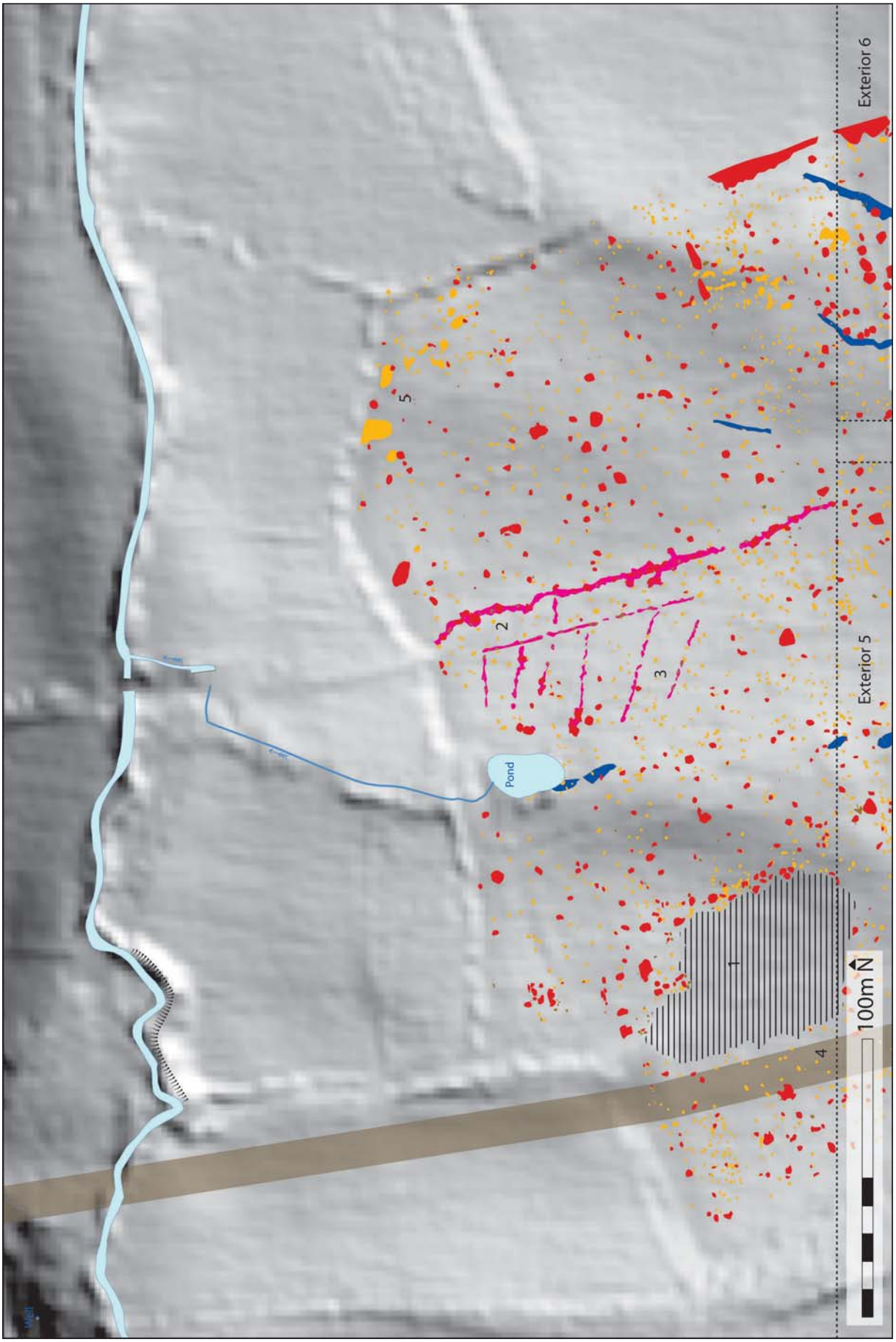

FIG. 6.7. Exterior 2 – geophysics interpretation on top of LiDAR data.

EXTERIOR 3 (FIGS 6.8–10)

FIELDWALKING

LP 0006: UoRSP survey; no finds reported, so nothing to date the cropmark.

KEY FEATURES

Situated on the edge of the gravel terrace, the Frith is the most obvious feature on this sheet. No excavation has been recorded here. The earthwork is univallate with one entrance on the west-south-west side [1], but the results are not quite clear enough to determine if there was one on the south-east side. No structural features can be identified within it from the geophysics; however, three aerial photographs from 1997 show a large 'blob' within the area under pasture half-way north–south and two-thirds to the east (NMR 15738/27-8 and 15711/06). The enclosure is essentially undated. In the scheduling description it is assumed to be Late Bronze Age or Early Iron Age, because of its simple univallate form (SAM 1008726).

Two field-drain systems have been put in down the slopes from the now largely ploughed out earthwork banks [2–3]. Down the slope parallel to the small stream there is the shadow of what is just possibly a defensive earthwork [4].

Within LP 0006, to the south-east of the sheet, is a rectangular enclosure which Corney noted from aerial photographs, 37 x 28 m; a probable entrance is visible in the centre of the southern side [5]. 'Although the subsoil geology has caused some obscuring of detail, it is possible that the eastern side of this enclosure is related to a linear feature visible for some 40 m from the south-eastern corner of the enclosure. Unfortunately it was not possible to walk this field during its brief period of use as arable, and it is now permanent pasture' (Corney 1984, 278, fig. 78, pl. XXXVII). Fluxgate gradiometry confirms many of the elements, and there is a slight hint of rectilinear structural remains just to the south (AHBR 18433).

A Gallo-Belgic E coin in Reading Museum was recalled by Boon as coming from near the track leading to Pond Farm. He thought it related to the cropmark enclosure in LP 0006 (Boon in Fulford and Timby 2000, 163).

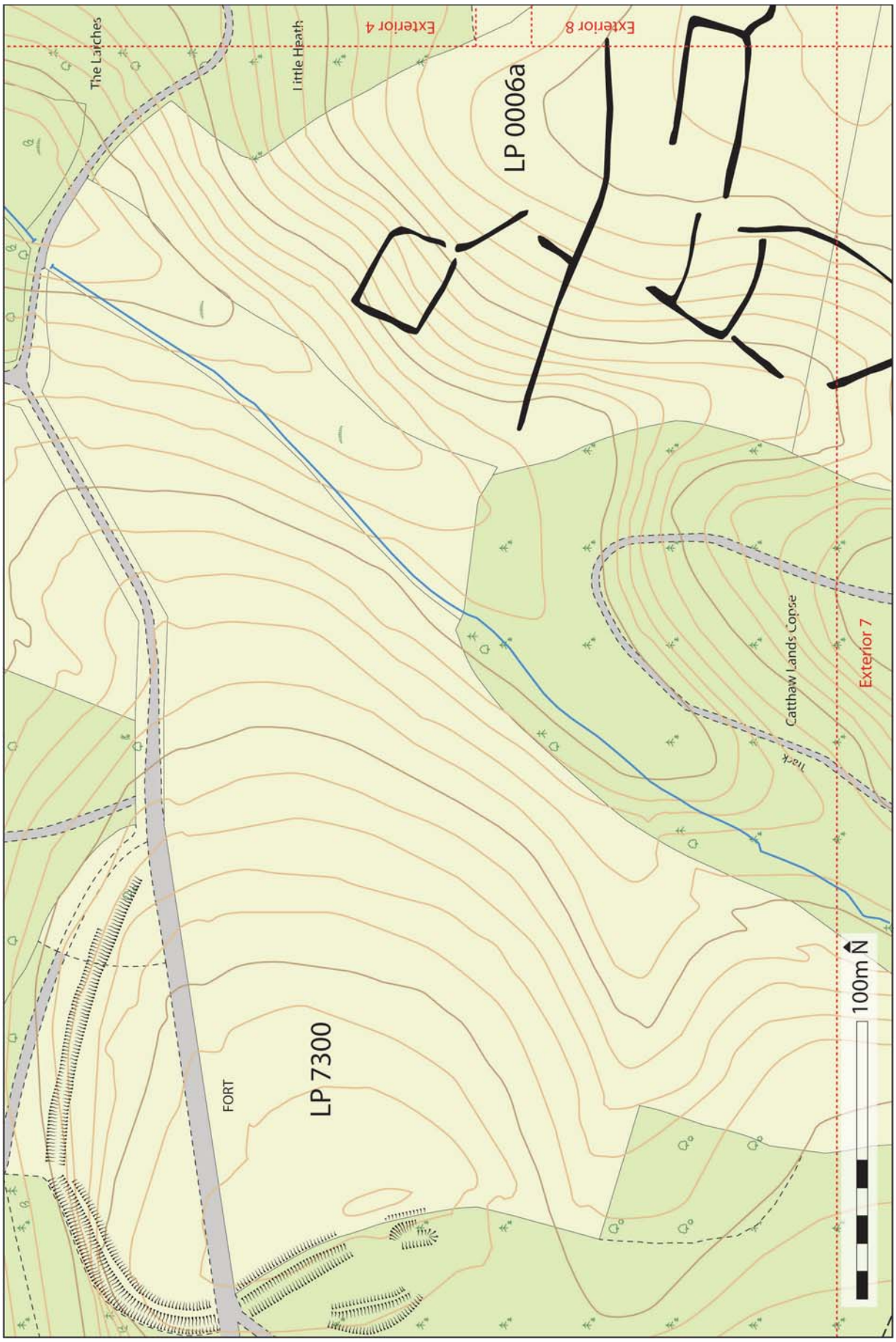

FIG. 6.8. Exterior 3 – excavations, aerial photography and fieldwalking.

FIG. 6.9. Exterior 3 – fluxgate gradiometry (± 2 nT).

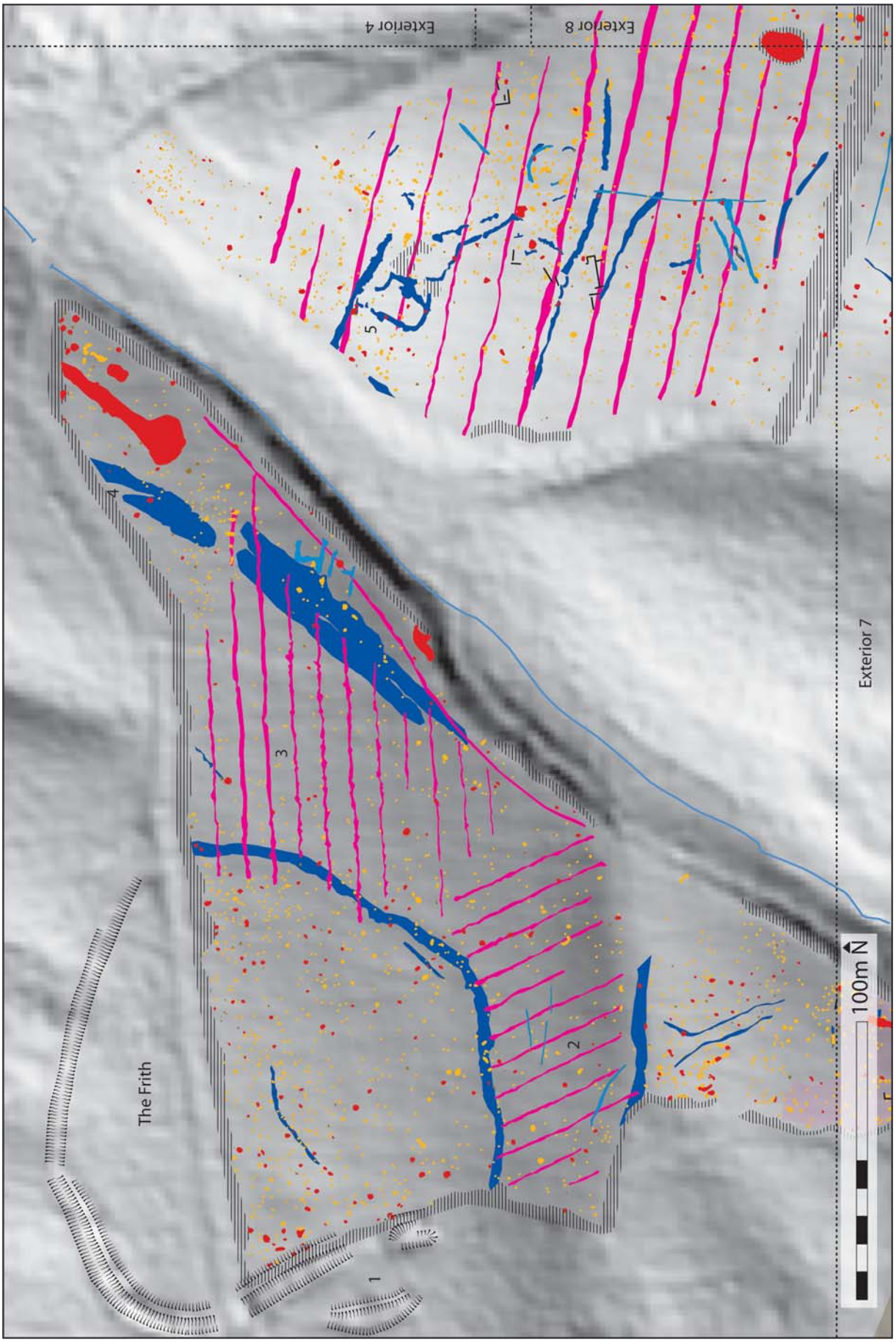

FIG. 6.10. Exterior 3 – geophysics interpretation on top of LiDAR data.

EXTERIOR 4 (FIGS 6.11–13)

FIELDWALKING

LP 1600 and 3700: Corney walked over 3–5 seasons, with no significant finds reported.
LP 6200: Corney walked over 1–2 seasons, with no significant finds reported.

KEY FEATURES

Various modern buildings have recently disappeared from the landscape. On the east side of the sheet was a house at Stony Hill [1]. This was shown on some early OS editions as having a formal planned garden. The area is now wooded. To the west of the main road there were two cottages in LP 1600, situated within a series of small enclosures [2]. The fluxgate gradiometry here is very noisy from all the metallic debris. There is a similar halo of metallic spikes in the southern part of LP 2025 close to the house at Little Heath [3].

The major linears include one within LP 3818 which is an old field-boundary [4]; this has another linear running parallel to it up-slope, suggesting it too was an earlier division [5].

Less obvious is a pair of parallel linears which run east-north-east to west-south-west, passing across existing field-boundaries (LP 3700, 3818, 6200) [6–7]. That the southern one is cut by the hollow-way down Stony Hill suggests they are earlier in date, so potentially Roman. Their interpretation is discussed on pp. 424–30.

Barely visible on the fluxgate gradiometry is a utility pipe which crosses LP 3700 north–south and runs into LP 3818 where it just becomes visible as it appears to turn north-north-east. This is at a depth of *c.* 1.5 m and was shown in some small-scale experimental GPR within the field [8].

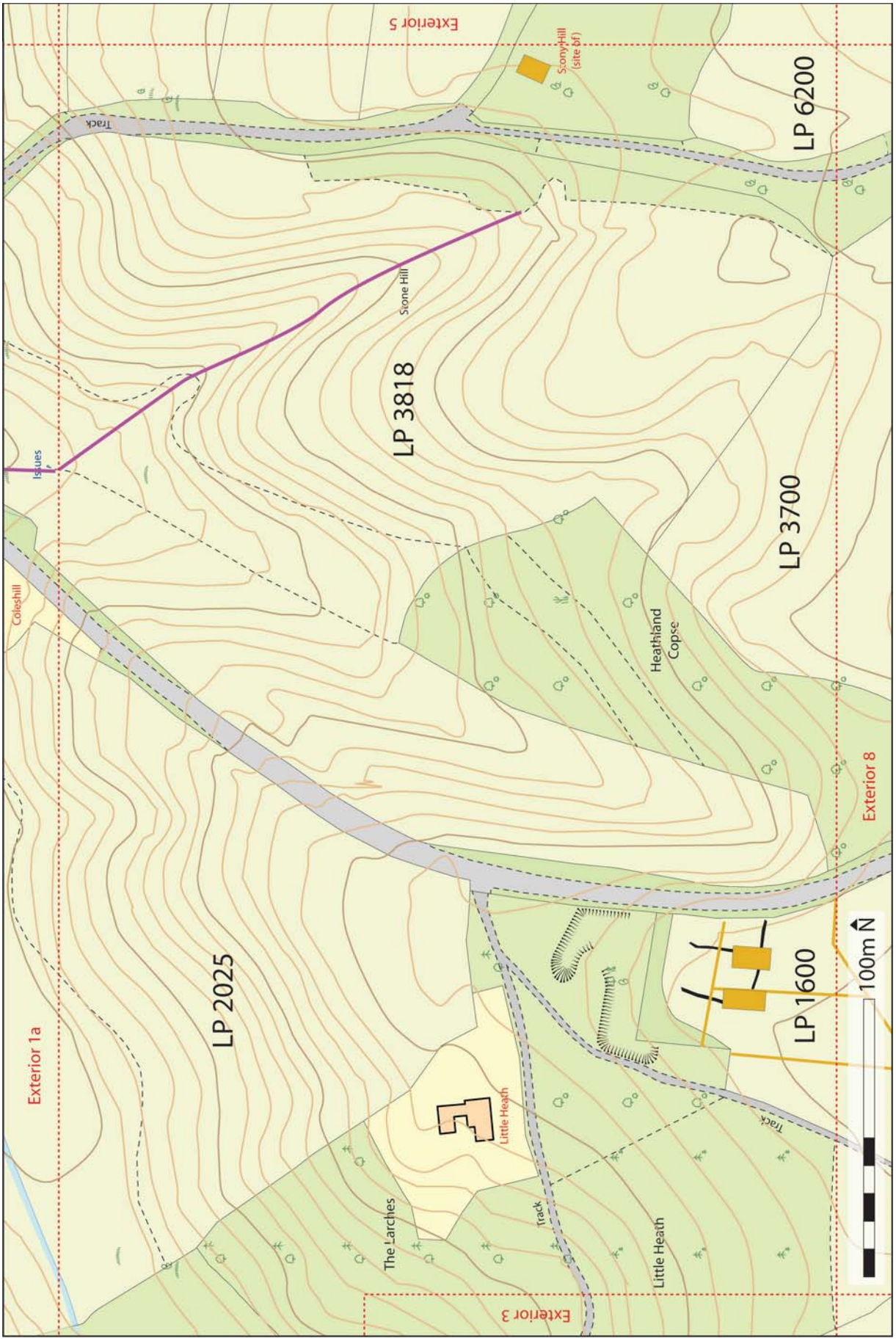

FIG. 6.11. Exterior 4 – excavations, aerial photography and fieldwalking.

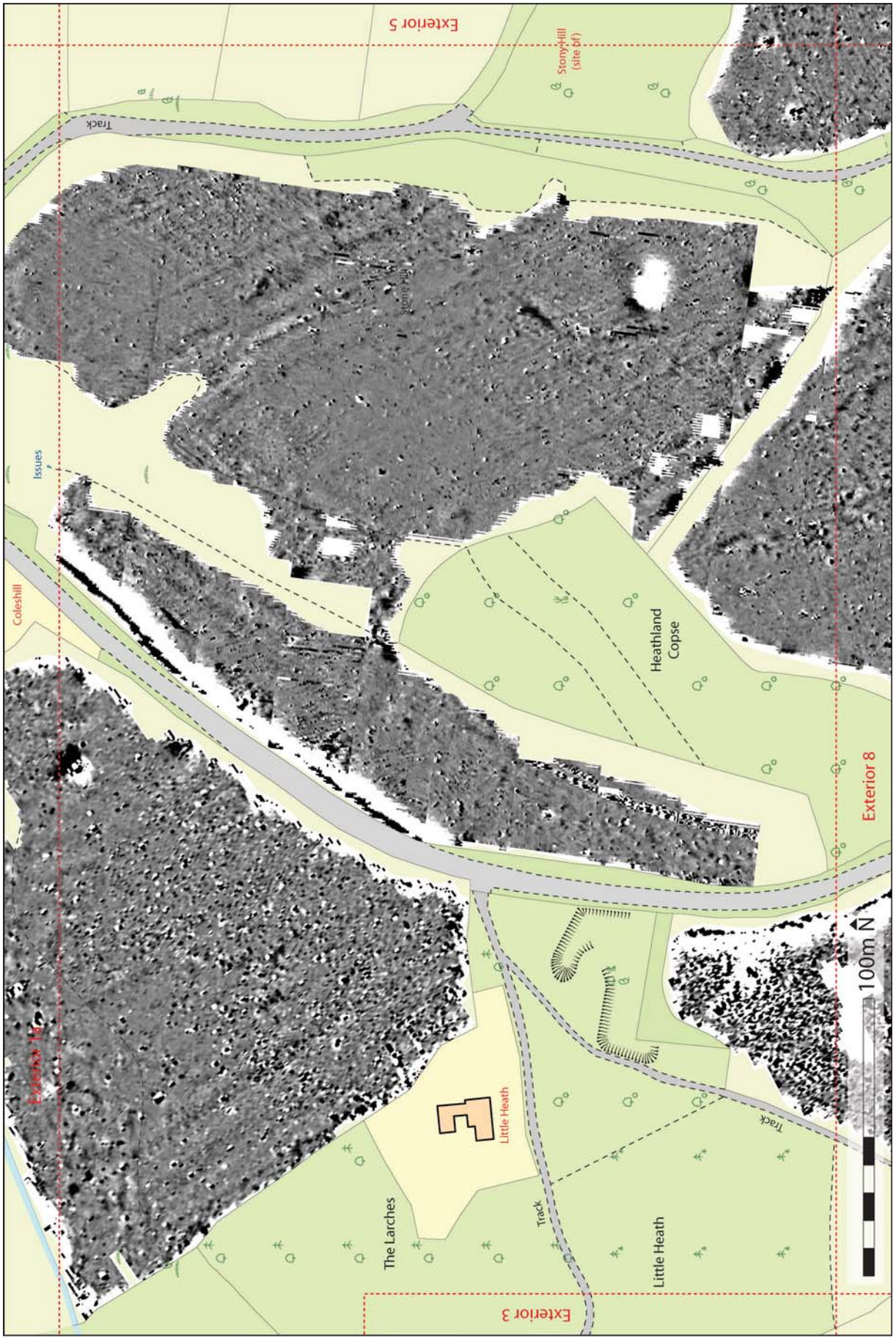

FIG. 6.12. Exterior 4 – fluxgate gradiometry (± 2 nT).

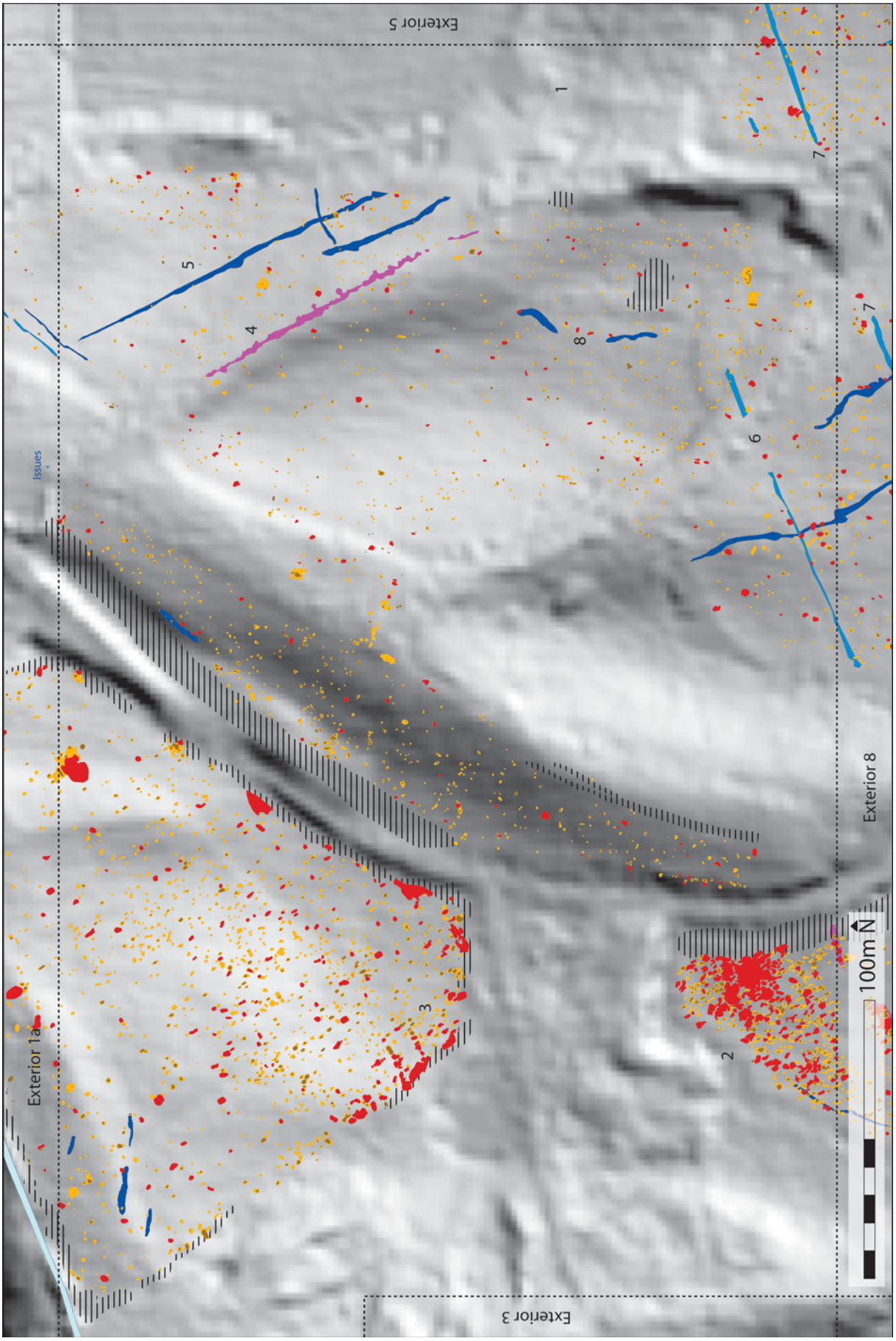

FIG. 6.13. Exterior 4 – geophysics interpretation on top of LiDAR data.

EXTERIOR 5 (FIGS 6.14–16)

FIELDWALKING

LP 6200: Corney walked over 1–2 seasons, with no significant finds reported.

OTHER INTERVENTIONS

1997 excavation of barn foundations by TVAS, Chitty Farm (see Exterior Sheet 9).

KEY FEATURES

In this area, in terms of the early modern landscape, there are many recently removed field-boundaries identifiable from earlier cartography. In particular, there is a long winding lane along the edge of the gravel terrace from east to west, which used to go by the name of 'Love Lane' [1]; on the edge of the sheet where the lane goes into the copse is where the formal garden of Stony Hill House was situated [2].

In terms of antiquity this sheet covers the area just to the north of the Outer Defences [3] through which the road to Dorchester-on-Thames passes [4]. The road does not show directly in the fluxgate gradiometry data, but in the southern half of the sheet there are side-ditches which show its path through LP 8100, confirming the ditches seen in aerial photography. This guides the road slightly to the east of the path shown on OS maps, and fortunately moves it so that it passes through what appears to be the entrance-way through the Outer Defences [5].

Just on the road's west side a Bath Stone sarcophagus was discovered in 1852, within a circular masonry tomb about 6 m across, buried with a third-century pottery sprinkler-bottle (Boon 1974, 186) [6]. The location on these sheets is taken from the OS first edition. It was in a particularly noisy area of geophysics so could not be confirmed.

To the west of the road in LP 6200 the long linears seen in Exterior 4 are seen continuing further east [7–8]. Otherwise, this area is curiously free of features in comparison to the area to the east of the road (see discussion on pp. 424–30).

To the east there is a rectilinear field-system between three main linears running from the west-north-west to east-south-east [9–11]. The most obvious kind of interpretation for these would be burial enclosures or paddocks and stock enclosures. The innermost tend to have larger pit-like anomalies within them, but these features do not have the clear centrality to suggest monumental burial enclosures. The outermost enclosures have possible ephemeral traces of buildings within them [12].

In this area there are also a number of circular enclosures which had been identified earlier on the aerial photographic coverage by both Corney and Bewley and Fulford. Certain elements of them feature on the geophysics, but not clearly. The largest was *c.* 28 m in diameter, though it does not show up on the geophysics [13]. Because of their circular nature they have been assumed to be pre-Roman, but there are other possibilities, such as a horse-training enclosure; the size of this feature is only slightly smaller than the supposed *gyrus* at the early fort at the Lunt, Warwickshire (Hobley and Charlesworth 1974).

The LiDAR shows features within Stonehill Copse which could include a quarry [14] and a clearly defined ditch/stream now shown on the OS maps [15].

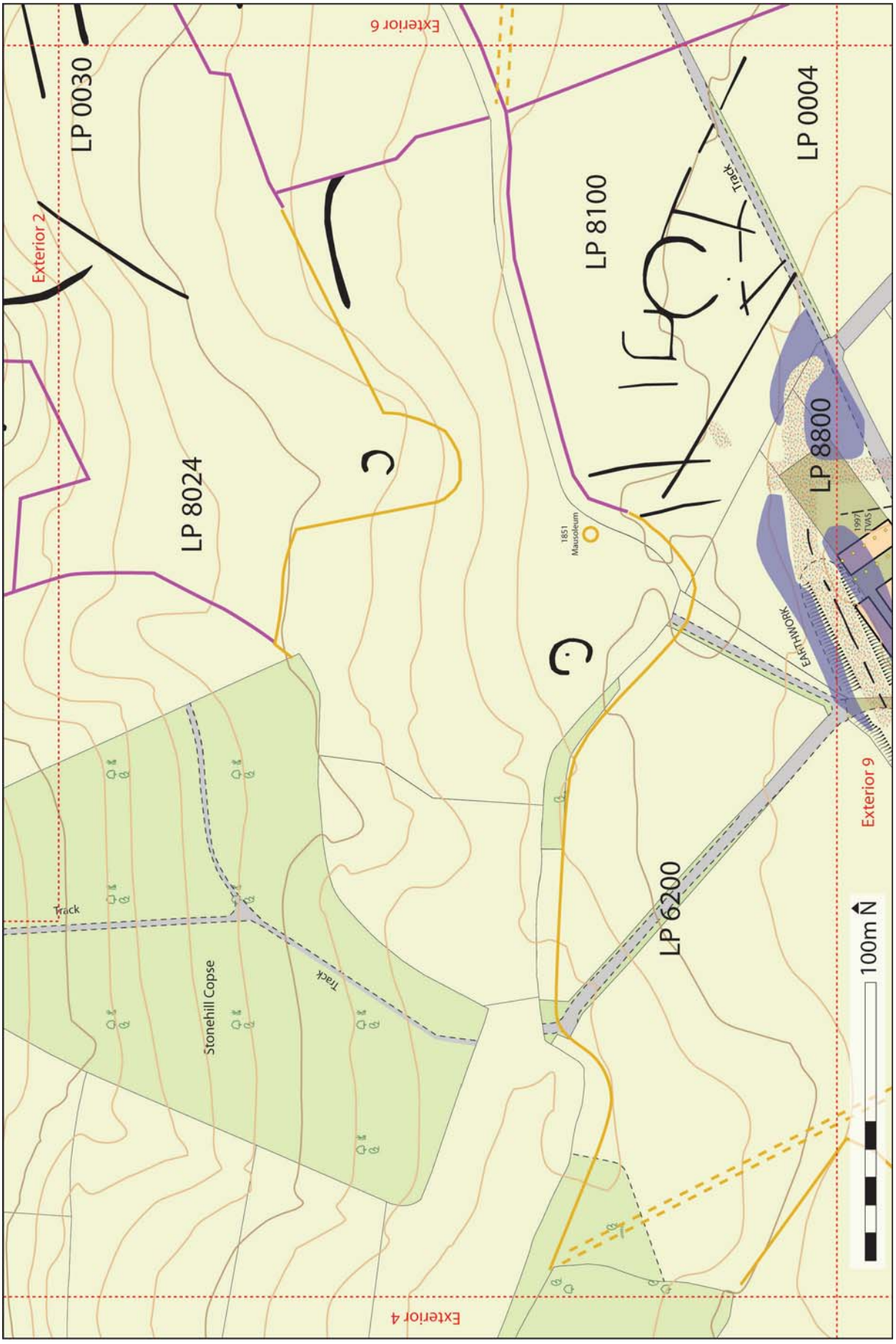

FIG. 6.14. Exterior 5 – excavations, aerial photography and fieldwalking.

FIG. 6.15. Exterior 5 – fluxgate gradiometry (± 2 nT).

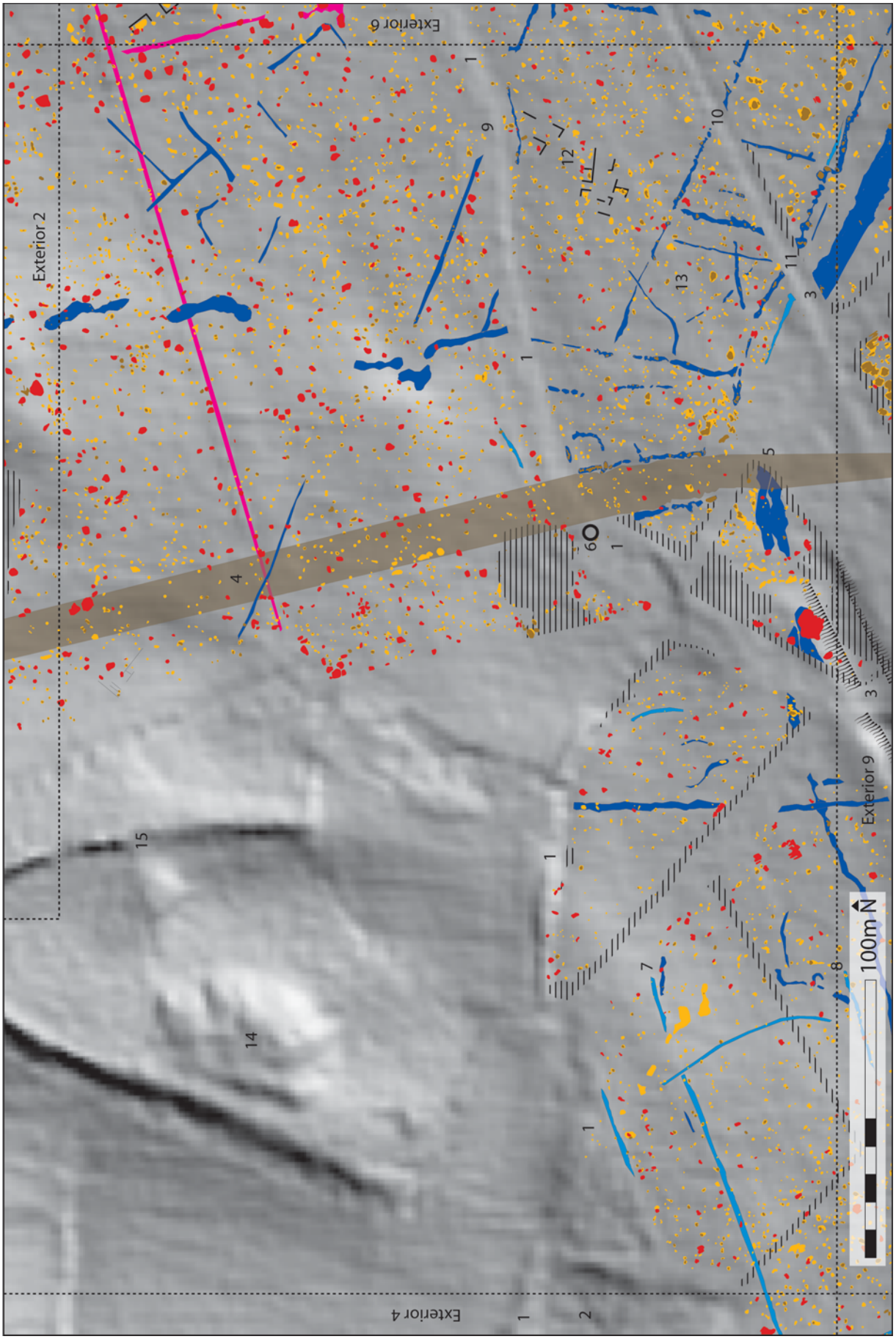

FIG. 6.16. Exterior 5 – geophysics interpretation on top of LiDAR data.

EXTERIOR 6 (FIGS 6.17–19)

FIELDWALKING

None of these fields have been walked by Corney or UoRSP.

KEY FEATURES

In terms of the early modern landscape, Love Lane has been lost in field-boundary removal [1]. The lane crossed eastwards to turn down into what is now Kiln Yard Copse, though some of the northern packets of it were open pasture on OS maps from the 1850s through to the 1960s, and were only planted up recently. A series of field-boundaries perpendicular to this lane are fairly easily distinguishable and can be separated from potentially earlier features. The LiDAR revealed a number of land divisions which are not shown on earlier maps, but are all parallel or perpendicular to others that survive [2–3].

In terms of the ancient landscape, a major country lane comes out from the north of the town and along this slight spur off the gravel terrace, heading to the north-east [4]. There are a clear series of rectilinear paddocks or enclosures on the northern side of the lane, which continue to have a few large geophysical anomalies within them, some in potentially central positions, though these neither have the look nor 'feel' of the burial enclosures to the north-west of the town. It is perhaps notable that the enclosures tend to run off this lane rather than running off the 'Roman' road to Dorchester-on-Thames, suggesting that this route, wherever it lead, had strong local significance.

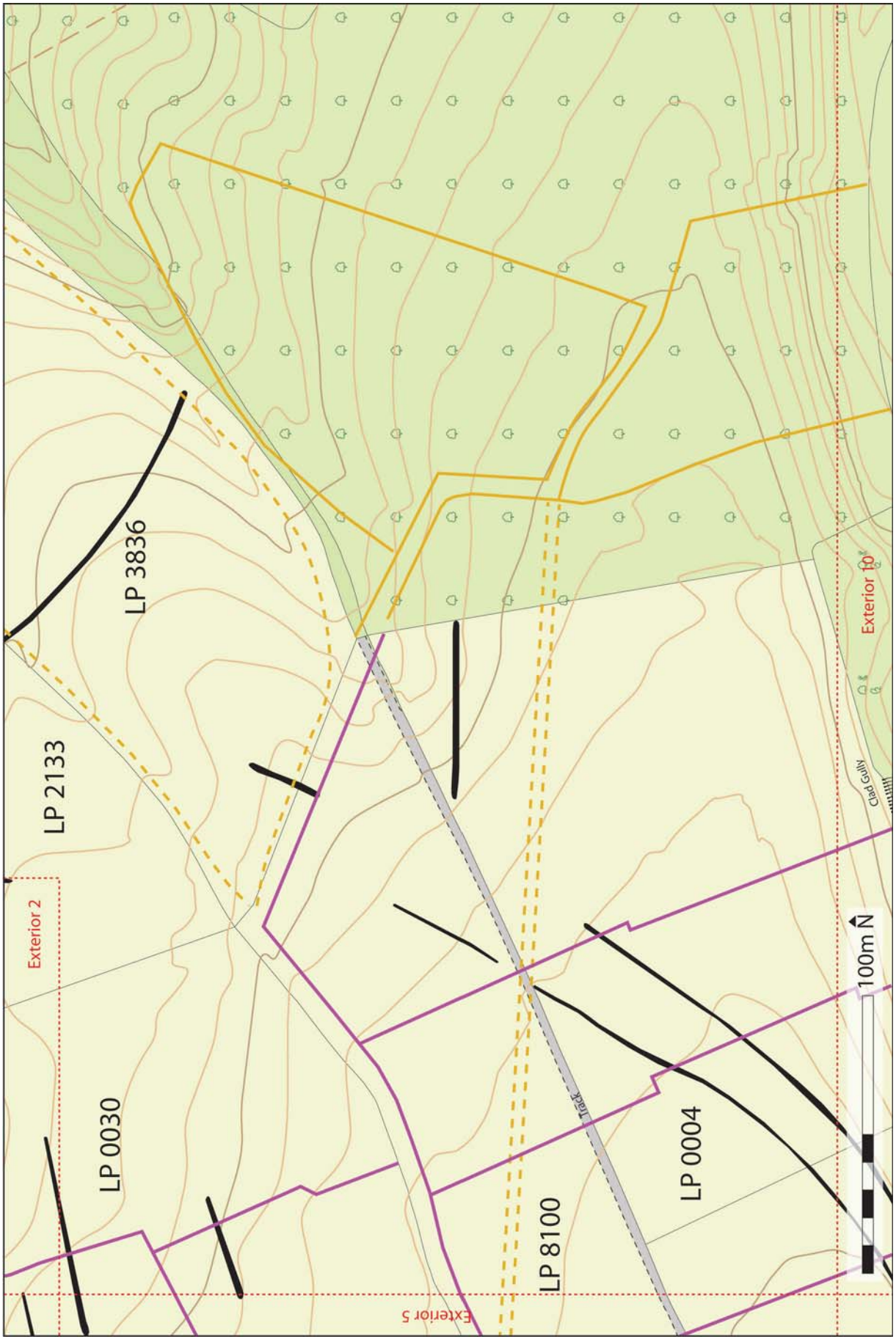

FIG. 6.17. Exterior 6 – excavations, aerial photography and fieldwalking.

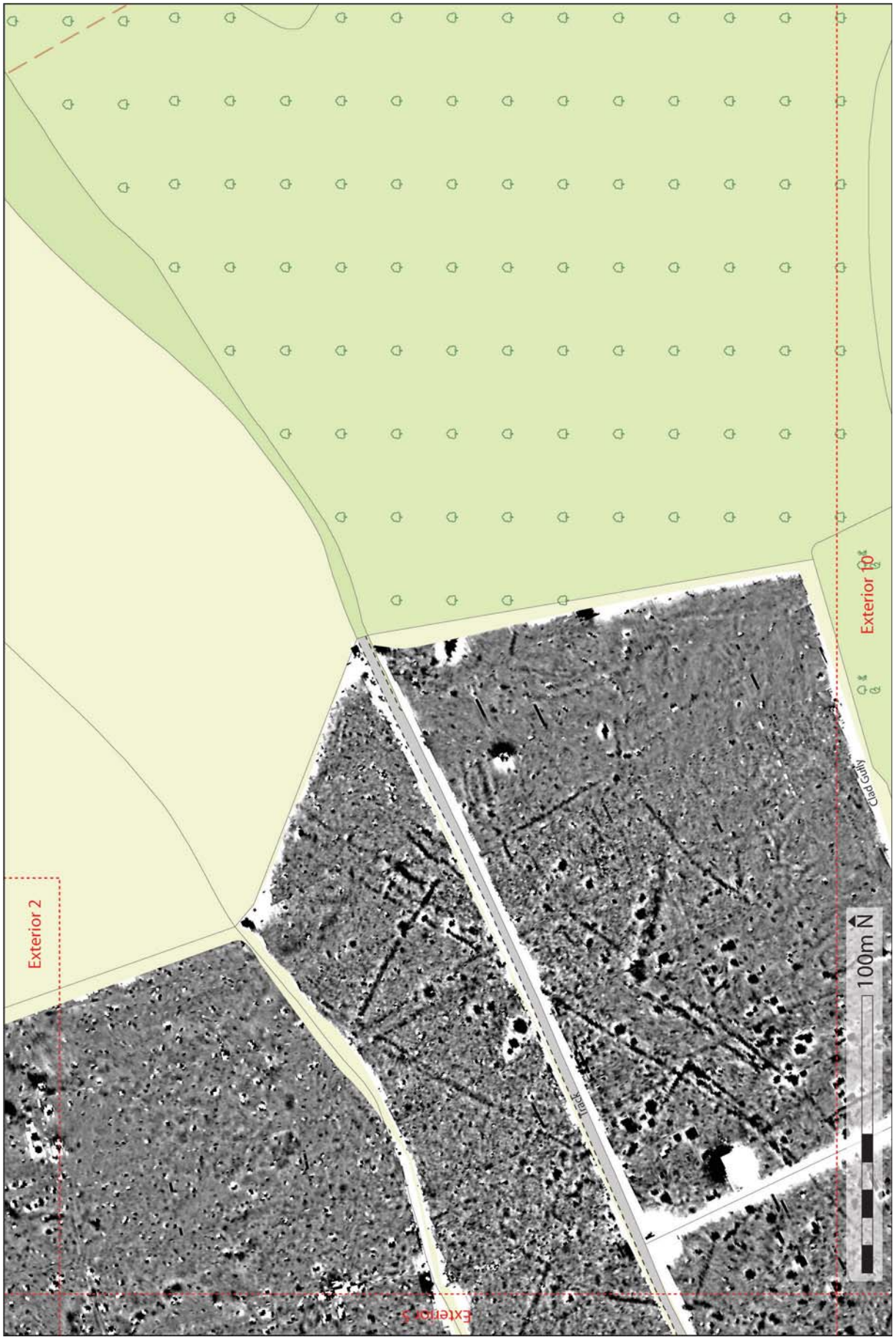

FIG. 6.18. Exterior 6 – fluxgate gradiometry (± 2 nT).

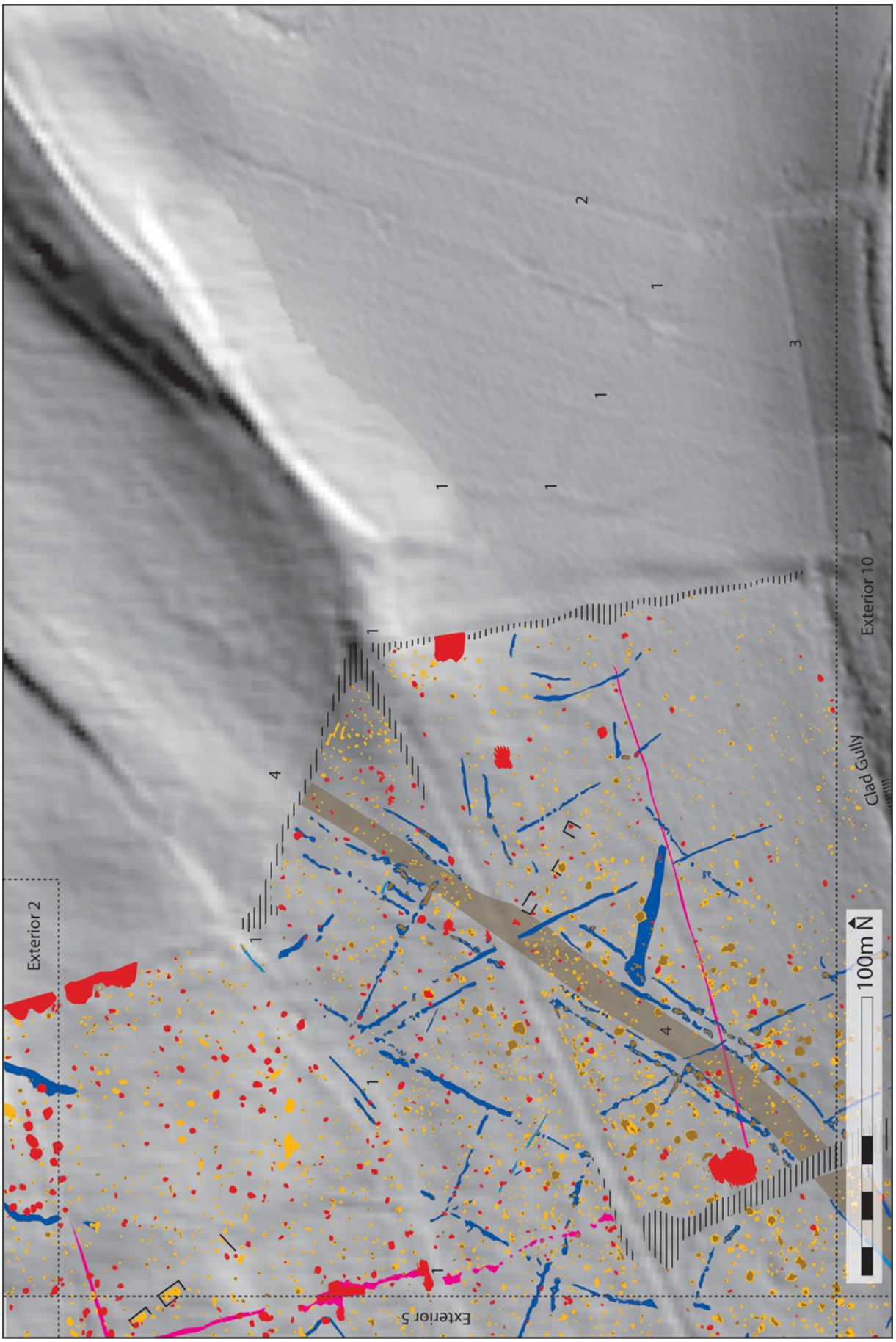

FIG. 6.19. Exterior 6 – geophysics interpretation on top of LiDAR data.

EXTERIOR 7 (FIGS 6.20–22)

FIELDWALKING

LP 9169: Corney walked over 1–2 seasons, with no significant finds reported.
LP 0006: UoRSP survey, no finds reported.

KEY FEATURES

The LiDAR data only cover the northern half of this area.

In terms of the more recent landscape, there is only one recent field-boundary that has been removed within LP 9169, and that barely leaves any trace within the geophysics. A curious penannular cropmark in the northern part of that parcel found no correlation with any geophysical results, and I wonder if it may not have been related to a more recent agricultural activity within the field.

In terms of the ancient landscape, the dominating feature is the Roman road running to the west-north-west [1]. Before it enters Cathaws Copse it can clearly be seen to have two parallel linears about 50 m either side, broken up into enclosures [23]. There is marginally more pitting within these enclosures, particularly on the northern side where it drops off further away from the road. At the southern side of one is a small area which has a similar pattern to the presumed inhumation cemetery off the London road (Exterior 18) [4]. With this nestled up towards the back of the enclosure, towards its front are the ephemeral remains of what may be some buildings [5].

Along the road, into the woodland, the southern part of LP 7300 also has a noisy area in the geophysics which may be indicative of buildings. This is also within 50 m of the road-line, but there is no corroborative evidence it is ancient [6].

There are two faint east–west linears within the southern part of LP 9169, one positive and one negative [7–8]. These do not clearly relate to any other features ancient or modern.

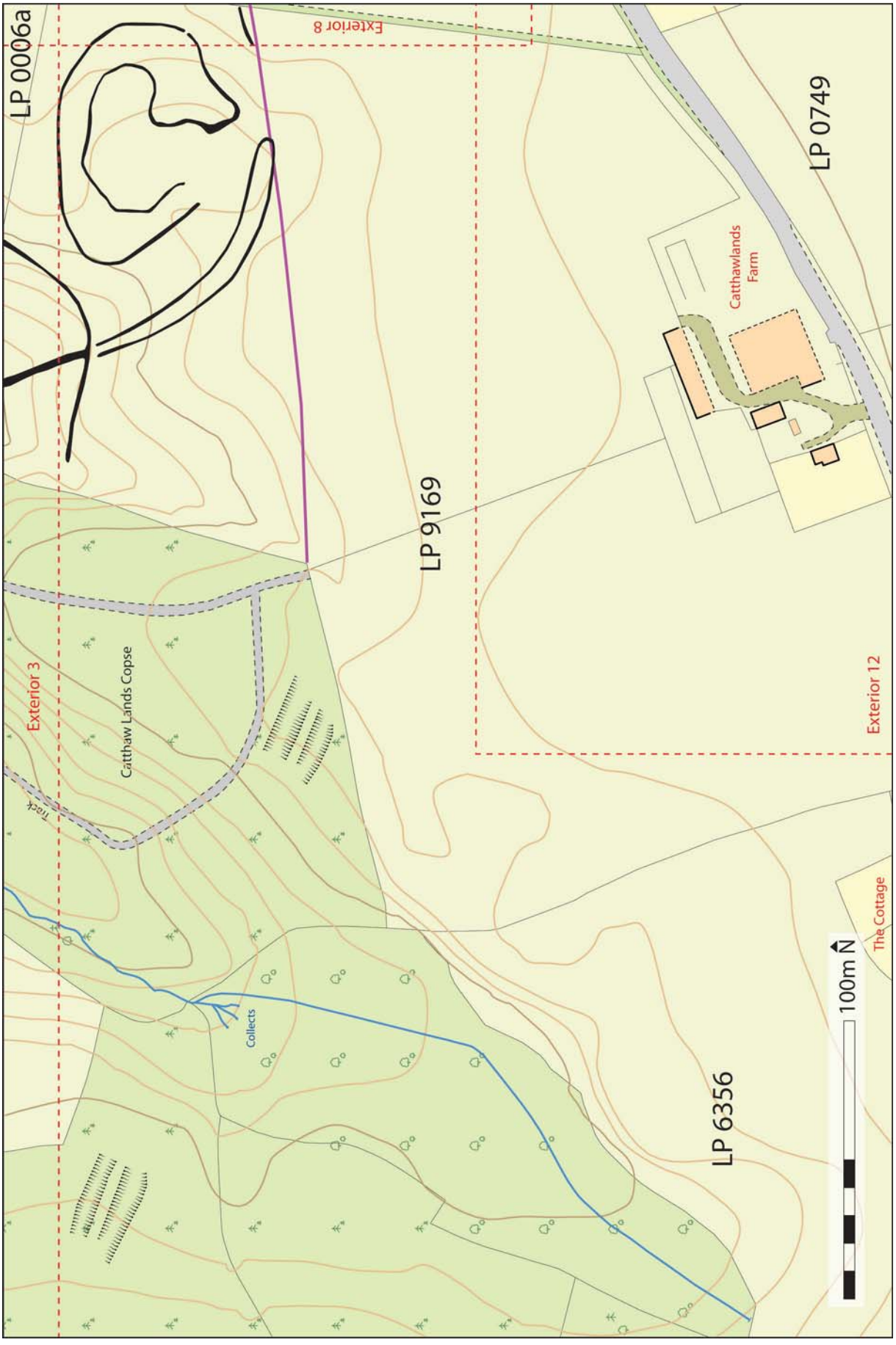

FIG. 6.20. Exterior 7 – excavations, aerial photography and fieldwalking.

FIG. 6.21. Exterior 7 – fluxgate gradiometry (± 2 nT).

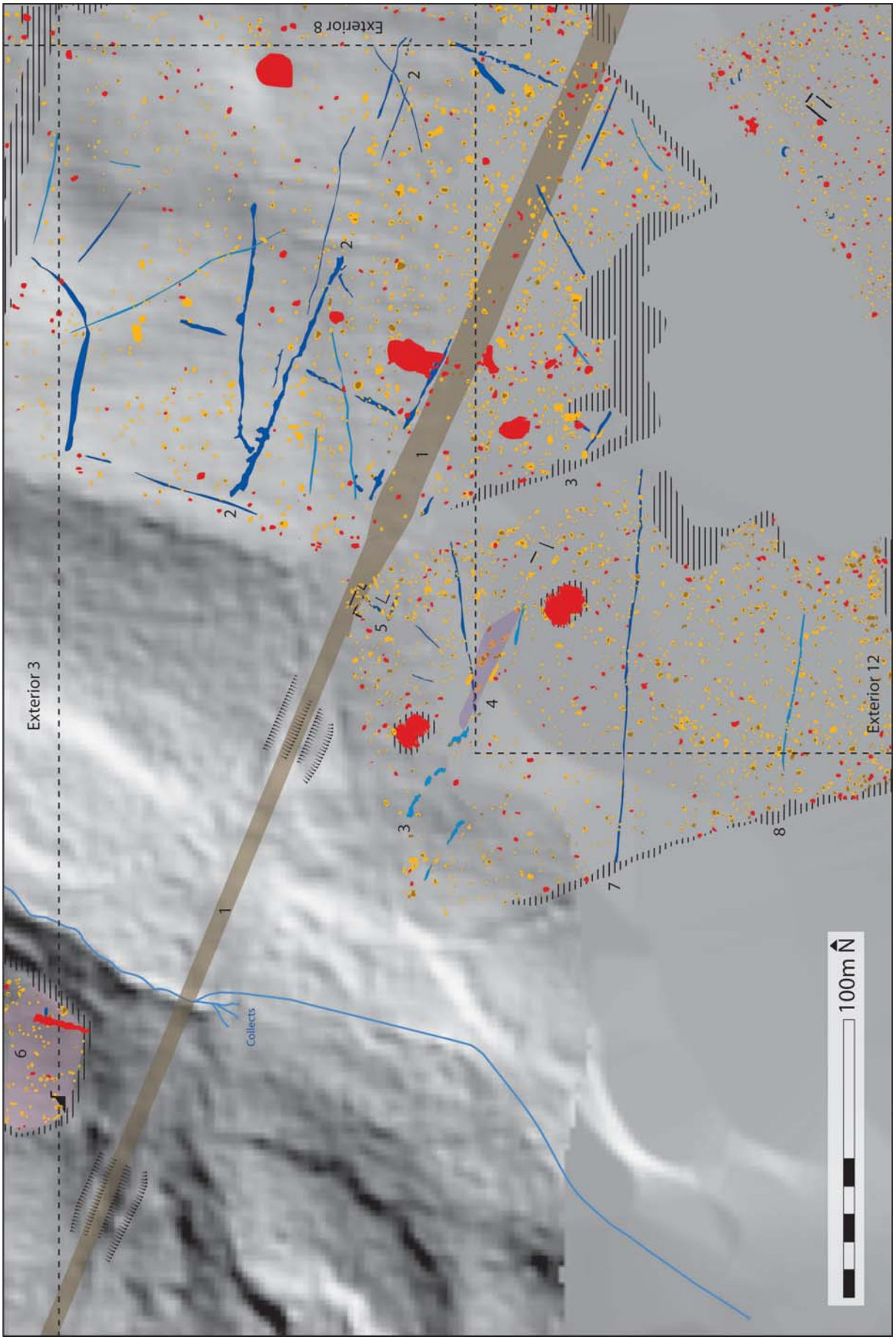

FIG. 6.22. Exterior 7 – geophysics interpretation on top of LiDAR data.

EXTERIOR 8 (FIGS 6.23–25)

FIELDWALKING

LP 1600, 2100, 3700 and 4172: Corney walked these over 3–5 seasons, with no significant finds within this map area. Within LP 2100 and 4172, UoRSP found a few fragments of tile and brick, more in 4172, but no concentrations of pottery or flint within this map area.
LP 6200: Corney walked over 1–2 seasons, with no significant finds reported.
LP 0006: UoRSP found nothing.

OTHER INTERVENTIONS

LP 4172 1956, Boon, Trench D (Boon 1958a, 17–20; 1969).

KEY FEATURES

In terms of modern features, a droveway used to cross the field where there is a current rarely used footpath running across [1]. There have also been some changes to the land division within LP 2100, 0006 and 1600.

In terms of the ancient landscape, the North-West Annex passes through this sheet, for which see the discussion in the Defences section (p. 315). The cluster of pit-like features behind the defences is notable, and may relate to the practice observed elsewhere of inserting burials into the rear of the bank [2]. A perpendicular spur to this towards the east of the sheet came from the interpretation of the aerial photography, but receives no support from the geophysics [3].

Droveways

A droveway exists in the south-west quarter of the sheet, almost but not quite parallel to the Roman road just to the south (Margary 41a) [4]. Corney's AP interpretation is more extensive than that of Bewley/Fulford or the NMP, suggesting evidence showing the track continued to the modern road (and presumably into LP 4172 on the other side) (Corney 1984, fig. 78). Hints of a second road parallel to Margary 41a, set just behind the parallel enclosures, also exist [5]. A third droveway can be seen in the north-west quadrant. This is very close to demolished modern buildings within LP 1600; yet it does not appear as a lane on any early OS maps of the area, and it is possible it may therefore be a more antique feature.

Linears

Two major linears can be seen within LP 3700 parallel with the road, though showing as negative fluxgate gradiometry readings, not positive [6–7]. Most of the known ditches show as positive readings, so these features are curious. Buildings within the interior of the town provide a negative response, so these could be structural features. These linears continue to the east across into the next field, suggesting they pre-date the hollow-way track dividing the two. They run along the contour so have no obvious drainage function. Both of these show slightly in the LiDAR, along with a third parallel linear which can be seen in the LiDAR close to the line of the water main, so masked in the geophysics in LP 3700, though it continues as a geophysical anomaly to the east in LP 6200 [8]. Their interpretation is discussed on pp. 424–30.

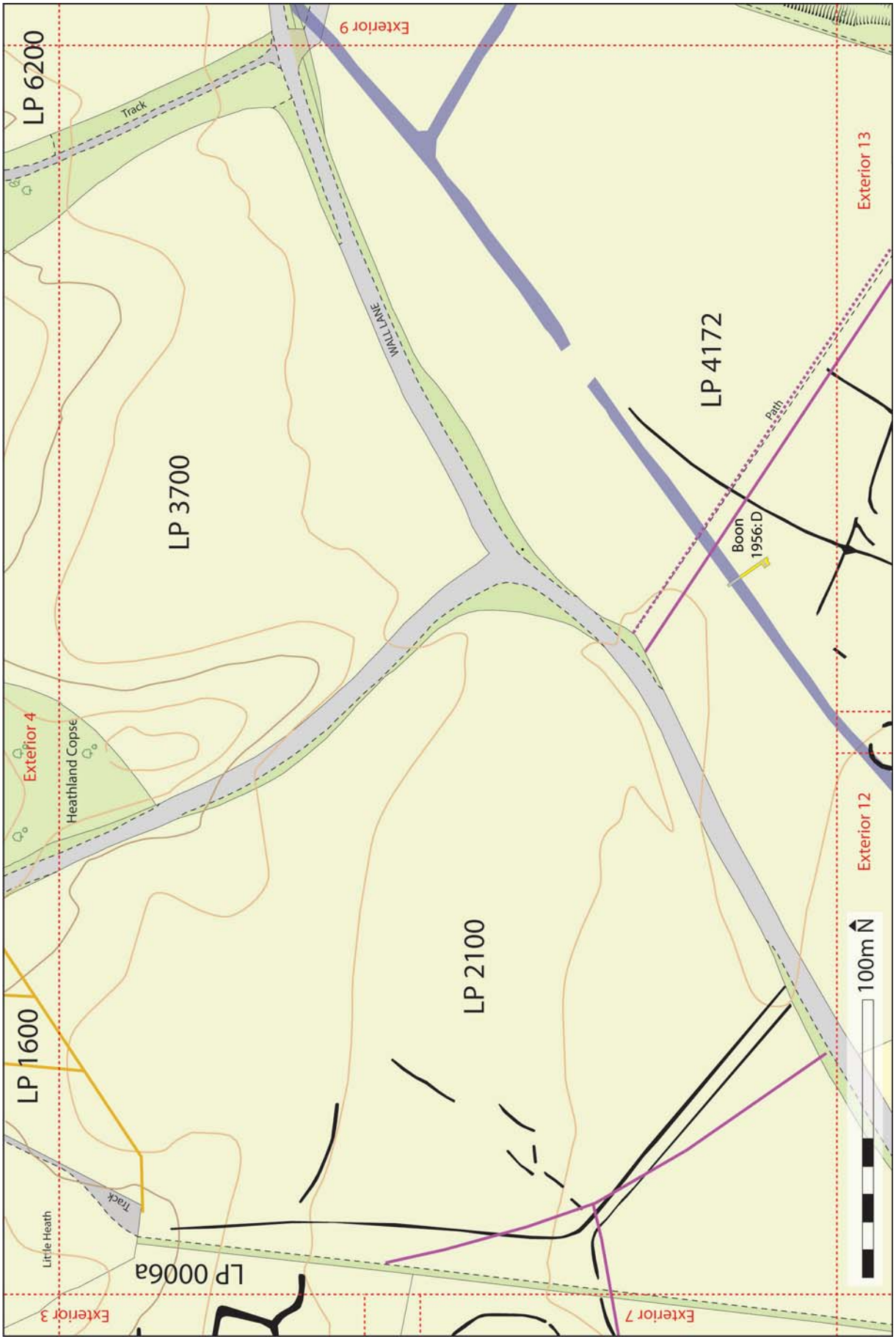

FIG. 6.23. Exterior 8 – excavations, aerial photography and fieldwalking.

FIG. 6.24. Exterior 8 – fluxgate gradiometry (± 2 nT).

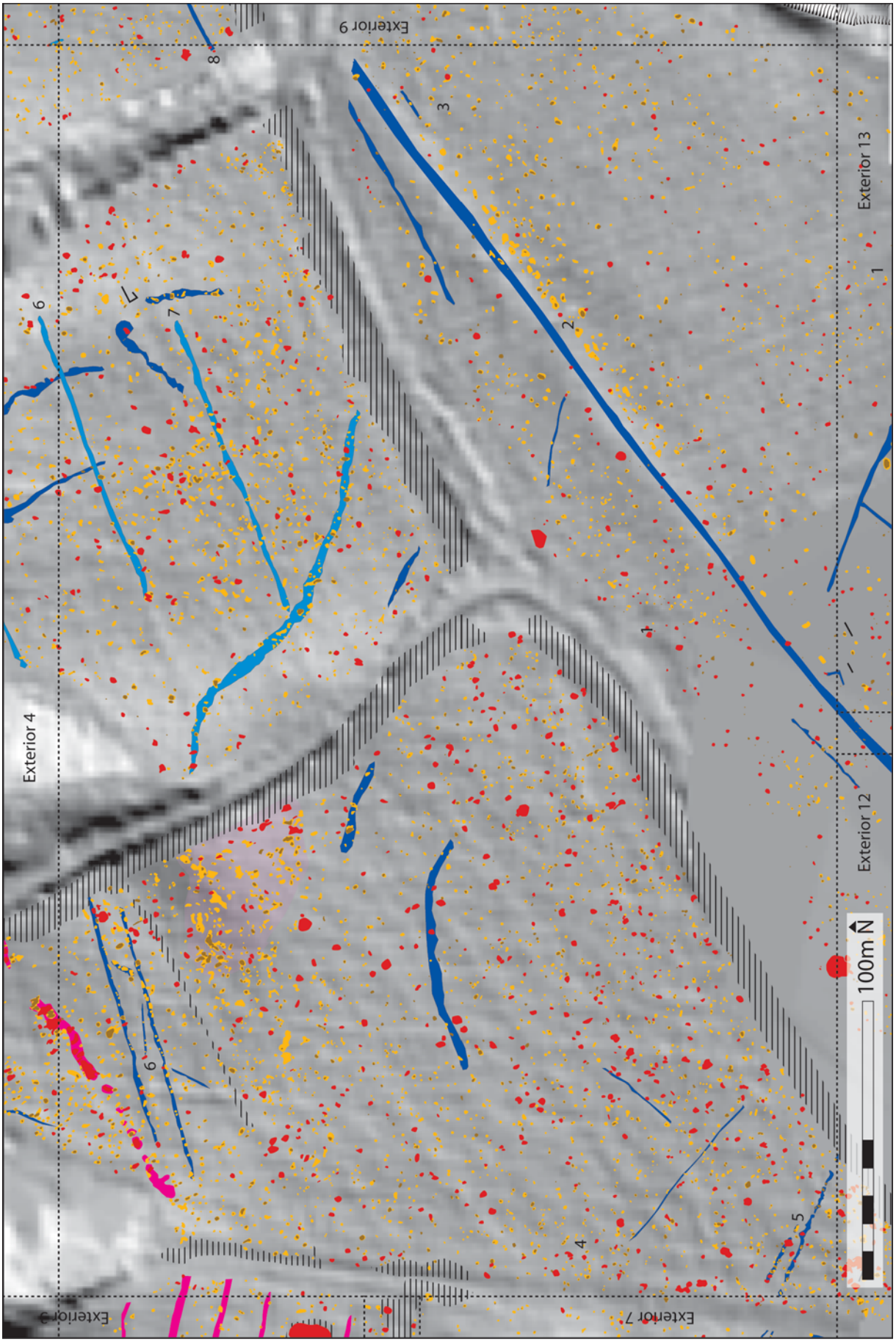

FIG. 6.25. Exterior 8 – geophysics interpretation on top of LiDAR data.

EXTERIOR 9 (FIGS 6.26–28)

FIELDWALKING

LP 4172: Corney walked over 3–5 seasons, with no significant finds in this part reported.
LP 4172 and 5567: UoRSP found a light scatter of brick and tile, but no pottery or flint.
LP 6200: Corney walked over 1–2 seasons, with no significant finds reported.

OTHER INTERVENTIONS

North Gate	1870s, Joyce (not published at the time).
North Gate	1890, Antiquaries (Fox and St John Hope 1890, 750–2).
North Gate	1909, Antiquaries (St John Hope and Stephenson 1910, 319).
Outer Earthwork	1909, Antiquaries, 3 sections (St John Hope and Stephenson 1910).
Town Wall	1909, Antiquaries, 3 sections (St John Hope and Stephenson 1910).
LP 6667	1939, Cotton, multiple trenches (Cotton 1947, 135).
LP 5567	1939, Cotton, Sites H, J and K (Cotton 1947, 135).
LP 3540	1956, Boon, Trench E, unlocated, west of North Gate (Boon 1969, 21).
Rye Cottage	1988, TVAS, Rye Cottage (Fulford *et al.* 1997, 145–54).
LP 8800	1988, Fulford, water main (Fulford *et al.* 1997, 154–66).
North Gate	1991, Fulford (Fulford *et al.* 1997, 88–142).
LP 8100	1997, TVAS, barn footings (A. Ford 1997; S. Ford 1997).
Drake Cottage	1997, BAS, conservatory footings (Entwhistle 1998).
LP 0004	1997, Fulford, Trench 1 (Fulford 1984, 26, 81).
LP 4172	1999, BAS, car park (Berkshire Archaeological Services 2000).
Drake Cottage	1999, BAS, garage footings (Entwhistle 2000, 8).
LP 8100	2006, TVAS, barn footings (Hammond 2006).
Chitty's Farm	2008, TVAS, evaluation, farmhouse extension (Mundin 2008).
Rye Cottage	2013, TVAS, watching-brief (Mundin 2013).

KEY FEATURES

The area between the Town Wall and the Outer Earthworks (both discussed in their own sections) is one of the densest areas in terms of modern activity and early evidence.

The extension of the street-grid into Rye House meadow

In 1938 Cotton had established that the street-grid pre-dated the Town Wall; the following year she excavated in Rye House meadows to see if the streets extended all the way to the outer earthwork. This appeared to be the case with the roads traced and an intersection of east–west and north–south roads excavated [1].

> The cross-roads and the streets where uncovered, were [4.9–5.0 m] wide with a good camber. They were laid on clay and natural gravel, were poorly metalled, and showed very little sign of use, and no repair. The thickness of gravel did not compare with that of the streets inside the town, and it may well be that the whole plan was too ambitious and that the suburbs did not grow up around the streets provided. This view was supported by the lack of the usual ditches which flank the streets, and by there being no trace of occupation found anywhere in the whole area with one small exception. (Cotton 1947, 135)

Curiously, however, the road to the west from this junction did not continue on a precise line but deviated to the south [2]. The road to the north from the junction headed, if projected, towards the modern gap where Wall Lane passes through the Sandy's Lands Outer Earthwork [3].

The extension of the street-grid to the north

Boon, in his grandest vision of the extent of the street-grid, imagined it continued to the north

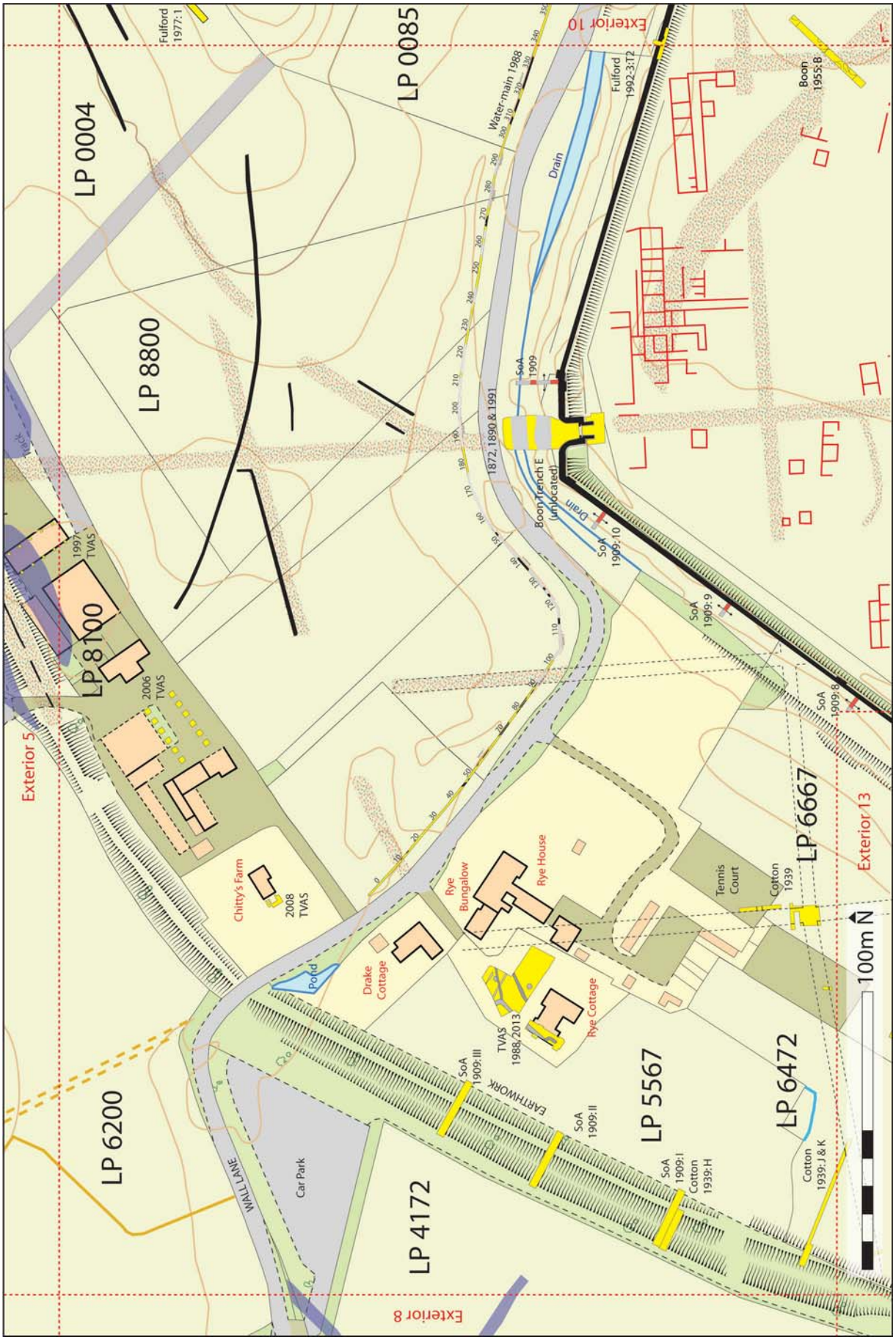

FIG. 6.26. Exterior 9 – excavations, aerial photography and fieldwalking.

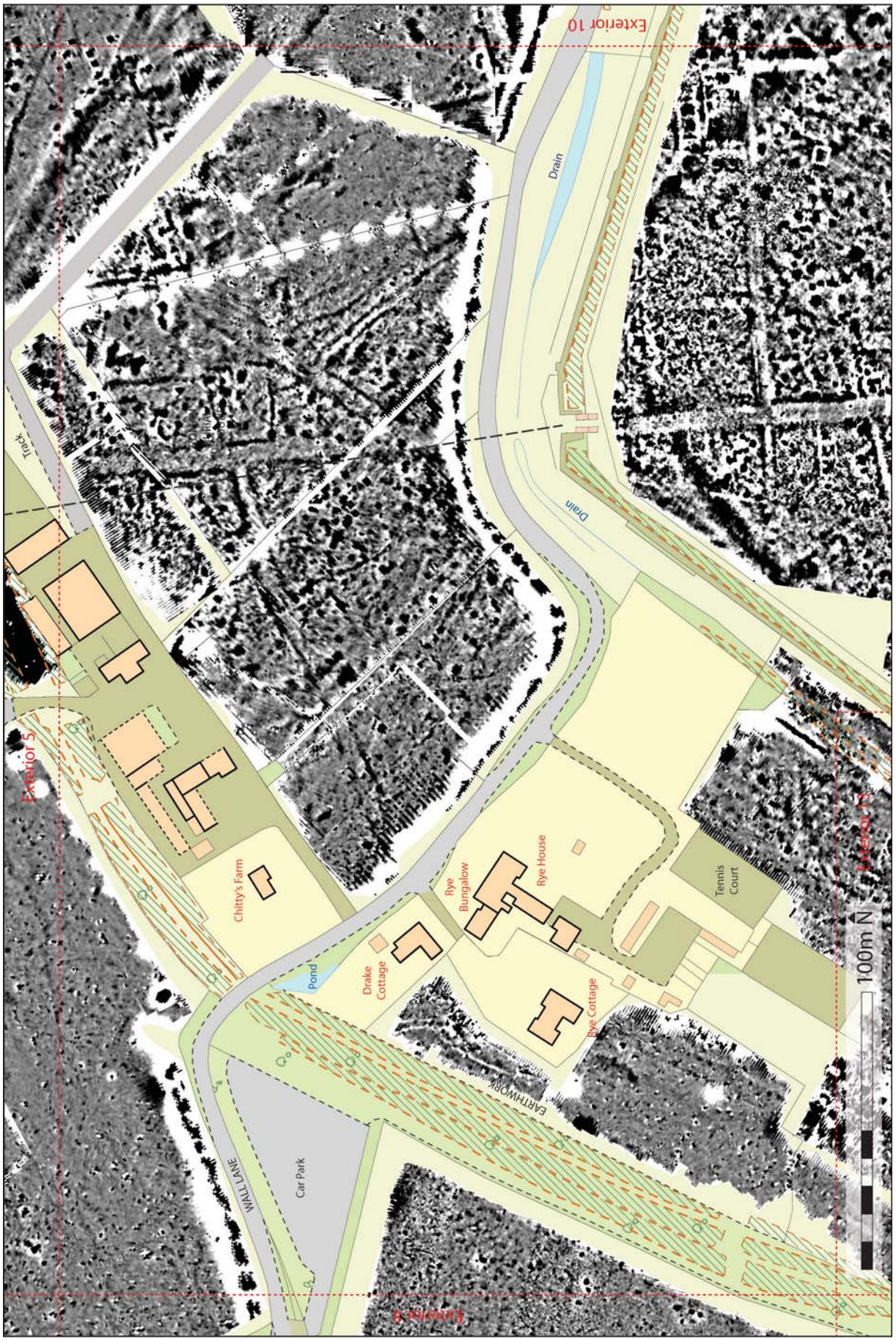

FIG. 6.27. Exterior 9 – fluxgate gradiometry (± 2 nT).

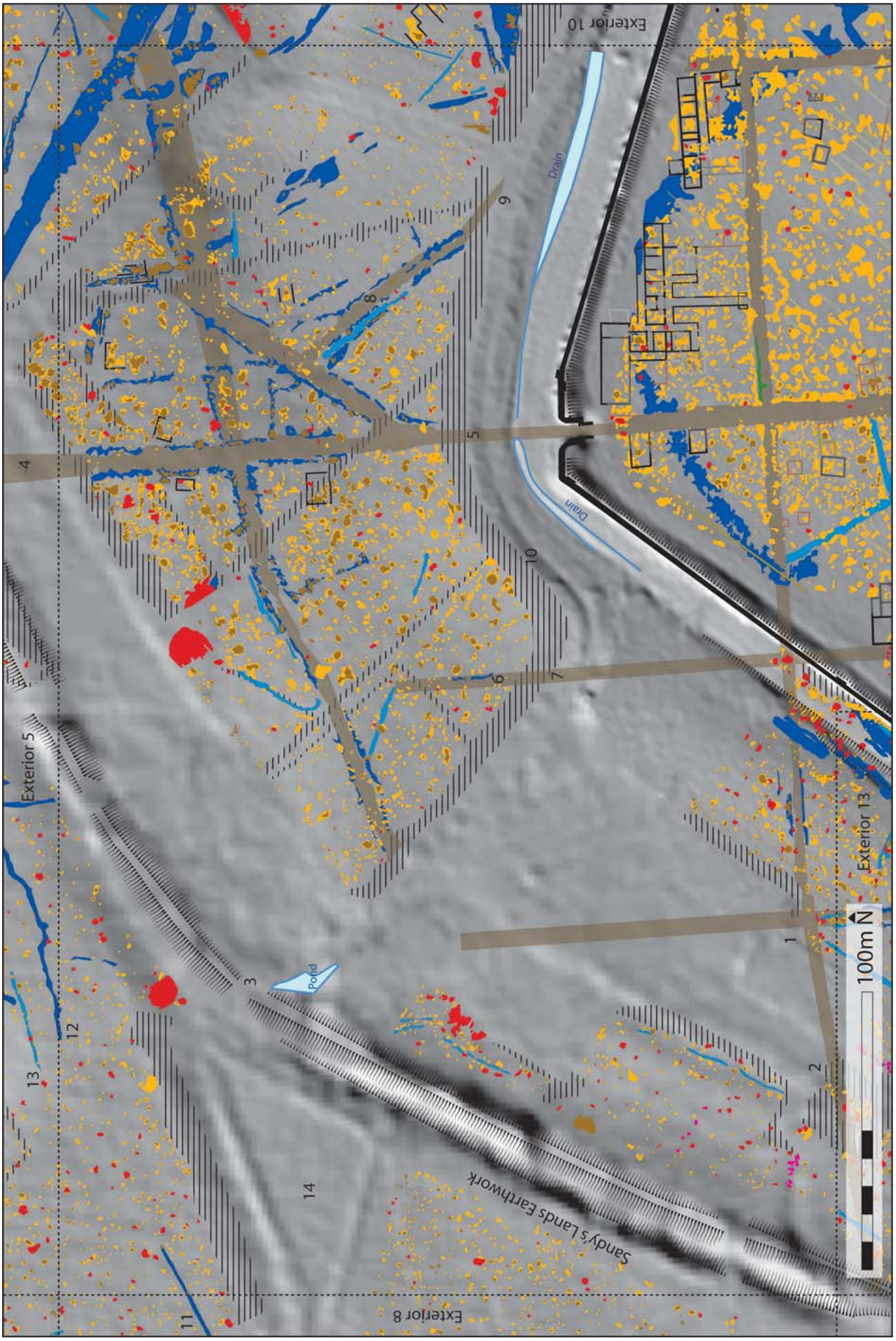

FIG. 6.28. Exterior 9 – geophysics interpretation on top of LiDAR data.

of the Town Walls (Boon 1974, plan). This is not the case. The main north–south road through the town continues north from the North Gate to become the road to Dorchester-on-Thames; however, this deviates fractionally to the east of the OS map line [4]. Where it was cut through by the water main (190–6 m along the line) there was a 0.65 m depth of metalling [5]. The road sealed 'buried soil and other contexts … including a *terra nigra* platter, and other ceramics dating to the first half and middle of the first century A.D.' (Fulford *et al.* 1997, 158).

A parallel north–south street existed to the west of this as part of the original grid layout. This is evidenced by a gulley in the geophysical results [6], a marking on an aerial photograph (Fulford *et al.* 1997, fig. 1), and from the water main section where an early discontinuous lens of gravel 0.1 m thick was sealed by a thicker layer of metalling 0.25 m thick, with early flanking ditches *c.* 1.2 m wide [7]. Sherds of early second-century BB1 from its surface give the road a *terminus ante quem* (Fulford *et al.* 1997, 156). This road cannot quite be seen continuing to the main cross road which traverses west to east at a slight angle. This transverse road continued to the east-north-east and appears to have been a major route out of town, as we have seen that it is this road, rather than the one to Dorchester-on-Thames, that has the small enclosures on either side (see Exterior 6).

Another new road is one which runs in a north-west to south-east direction and looks as though once it might have continued south under the Wall to run parallel to the Inner Earthwork [8]. A gravel spread was noted where the line passed through the water main, *c.* 280 m along the line [9].

The occupation between the Town Wall and the Sandy's Lands Outer Earthwork

Despite the streets here being cut off from the centre once the Town Walls were constructed, Cotton's excavations found some fourth-century occupation by the roadside. A more extensive area of 350 m^2 was excavated in 1988 within the boundary of Rye Cottage. There was neither Late Iron Age material culture nor clear evidence for later buildings, but there was a consistent background of other debris from the later first through to the early to mid-fourth century. The angles of the gullies tended to respect the alignment of the Wall rather than the street-grid. Given that cemeteries may have been expected outside the town, it is worth noting that there was an absence of human bone even from sieved samples.

Phase 1 (late first to second century): WNW–ESE gully.
Phase 2 (late second to mid-third century): NE–SW ditch, turning at north end and a pit.
Phase 3 (mid-third to fourth century): pair of near-parallel ENE–WSW gullies, ditch, pit and post-holes.
Phase 4 (later): single post-hole.

(Sources: Ford, Fulford and Reid in Fulford *et al.* 1997, 145–54, interim notes in Frere *et al.* 1989, 316; Fulford 1989b.)

There was also a watching-brief while both the conservatory and new garage were added to Drake Cottage; nothing was observed during the works (Entwhistle 1998).

The occupation under Chitty Farm

Over the late twentieth century the farmyard complex of Chitty Farm has grown extensively, nestled against the Outer Earthwork. Three main interventions have sampled this area. The first, in the south-west under an extension to the farmhouse itself, uncovered 25 m^2; no earlier features were observed, though one fragment of East Gaulish samian (late second to early third century) was recovered from the topsoil (Mundin 2008). Secondly, a new steel-frame barn in 2006 saw the excavation of 12 foundation pads, though no finds or features were observed during this process (Hammond 2006). Thirdly, further to the north-east, a new lambing-shed required 10 concrete footings to be excavated. One in the south-east corner produced some first- to second-century material (Silchester ware and samian), while the rest included 64 sherds of mainly second- to fourth-century material, 3 kg of ceramic building material, an iron fibula and a cattle tooth (A. Ford 1997; S. Ford 1997; 1998).

Other occupation material was revealed by the water main. Apart from the sections through the roads mentioned above, other features showed, including gravel deposits that were potential counter-scarps from the excavation of the town ditch, gravel spreads thought to be yards, and pits. The line also sectioned what was thought to be a major ditch on a north-west to south-east alignment just to the west of the main Dorchester-on-Thames road. However, no trace of it could be seen in the geophysics, and it could have been a large localised feature, *c.* 135–140 m along the line [10].

Overall, extensive signs of activity throughout the Roman period have been observed, though as yet, no specific evidence for cremations or inhumations in this area.

Outside the Outer Defences

Beyond the Outer Defences there is a significant tail-off in activity. Several major linears can be seen in LP 6200 running on a similar alignment to that which the modern Wall Lane takes once exiting through the gap in the defences (discussed pp. 424–30) [11–13].

There was a watching-brief in the area converted into a car park. The work took place without any prior evaluations (all other geophysical evaluations in different locations having found remains); the watching-brief apparently found 'no finds or features of archaeological significance', which is remarkable to say the least (Berkshire Archaeological Services 2000) [14].

EXTERIOR 10 (FIGS 6.29–31)

FIELDWALKING

LP 6281: Corney walked over 3–5 seasons, with no significant finds.

OTHER INTERVENTIONS

Unlocated	1906, Antiquaries, kilns (St John Hope and Stephenson 1910, 327–9).
LP 0004	1978, Fulford, Trench 1 (Fulford 1984, 26, 81).
LP 0085	1978, Fulford, Trench 2 (Fulford 1984, 26, 81).
LP 0085, 2672	1988, Fulford, water main (Fulford *et al.* 1997, 154–66).

KEY FEATURES

This area neatly divides into two: the top of the gravel terrace, which has been pasture for some time (LP 0085 and 2672), and the wooded edge of Kiln Yard and Collin's Copse. The edge of the two is the long-standing suspected line of the Outer Earthwork.

Outside the Outer Earthwork

There are two slight areas on either side of the Outer Earthwork close to Fulford's Trench 2 which show areas of mottling which looks similar in appearance to the presumed cemetery off the London road (Exterior 18). There may be a small inhumation cemetery here, though the scale of the response is too small to be sure. There is no other direct evidence. Its location is on a very slight spur on the edge of the gravel terrace, giving the situation prominence [1–2].

In November 1906 the tenant farmer north-east of the town dug a gravel hole and struck Roman remains. Two small pottery kilns were dug by the Antiquaries in 1906 on the Englefield

Estate (with the tenant's permission, but not the estate's). Unfortunately, although the kilns are published, no detailed locational information exists for them (St John Hope and Stephenson 1910, 327–9); other literature includes a contemporary note (Anon. 1910). Various locations have been suggested: Boon asserted they were a short distance beyond the North Gate, perhaps based on May's statement when writing up the pottery that the kilns were 'outside the north gate' (May 1916b, 192); but this flatly contradicts the 'north-east' locational description given in the Antiquaries' report (Boon 1974, 280), while Hampshire's Archaeology and Historic Building Record has the centre of LP 2672 as a possible location (AHBR 54831). These are just suggestions with no solid basis. The photographs of the kilns are close-up, but they do not show lots of tree roots, suggesting the site was not in the middle of a wood. However, Kiln Yard Copse has not always been totally wooded as the areas planted have varied over the sequence of OS edition maps. Within the copse there is certainly an area of disturbed ground that can be seen in the LiDAR data which could be the location of the gravel extraction that led to their discovery [3]. These features have not been inspected on the ground, and they could have a totally different explanation. The kilns were put into their national context by Corder (1957, 14, 25–6).

Inside the Outer Earthwork and North-East Annex: the tile clamp

Boon's vision of the greater street-grid reaching out to the Outer Earthwork in all directions receives no support from the accumulated evidence (Boon 1974, plan). New major earthworks have been found in this area, and these are discussed in the section on 'Mapping the Earthworks'.

The number of other features varies significantly in this area. There is a relatively quiet area in the middle [4], though this could be more apparent than real. One of the observations from the water main excavation was the depth of soil above the natural subsoil in places. Sometimes early Roman strata were sealed by significant layers of gravelly soil which has been interpreted as deriving from the excavation of the town's defensive ditches from the late second century onwards (Fulford *et al.* 1997, 158).

To the east of this the number of features suddenly increases past two linear features which were interpreted as a possible lane or street from the geophysics [5]. Reasonably close to this in the water main section are traces of a possible road with two side ditches very early in the sequence (556–65 m along the line). This appears to be about 10–15 m too far to the west to perfectly match with the geophysical road [6], but then in this stretch the field-boundary dividing LP 0085 and 2672 (500–8 m along the line) also appears to be about 10–15 m too far east in the section [7], so there may be a systematic error in the location of the sections in this part of the water main. This lane does, however, align with the projected course of the Iron Age street excavated under the Basilica, so this could be a very early feature, though it would be projecting that lane quite a distance.

Beyond where this road lies activity picks up. The 301 sherds from the water main in LP 2672 included nothing that was later than the mid-third century. There is a dense cluster of pits and ditches (590–606 m along the line), and then there is a probable tile clamp (610–15 m along the line). There was 'a conspicuous mass of poorly-fired tiles lying above a charcoal-rich layer and sealed by a layer of yellow clay … This feature is interpreted as the waste from a tile clamp, the first to be identified adjacent to the walled area of Silchester' (Fulford *et al.* 1997, 161) [8]. The geophysics gives a bit more form to these observations, showing a series of boundary ditches dividing the area up into rectilinear blocks. There are ephemeral traces which may be buildings in the vicinity, though the identification of these is very problematic.

The lane is certainly early in the sequence, and lies on the projected line of the Iron Age Street under the Basilica. If it is early, then these tile clamps may also date to an early phase of the town's existence and the start of use of ceramic building material in construction.

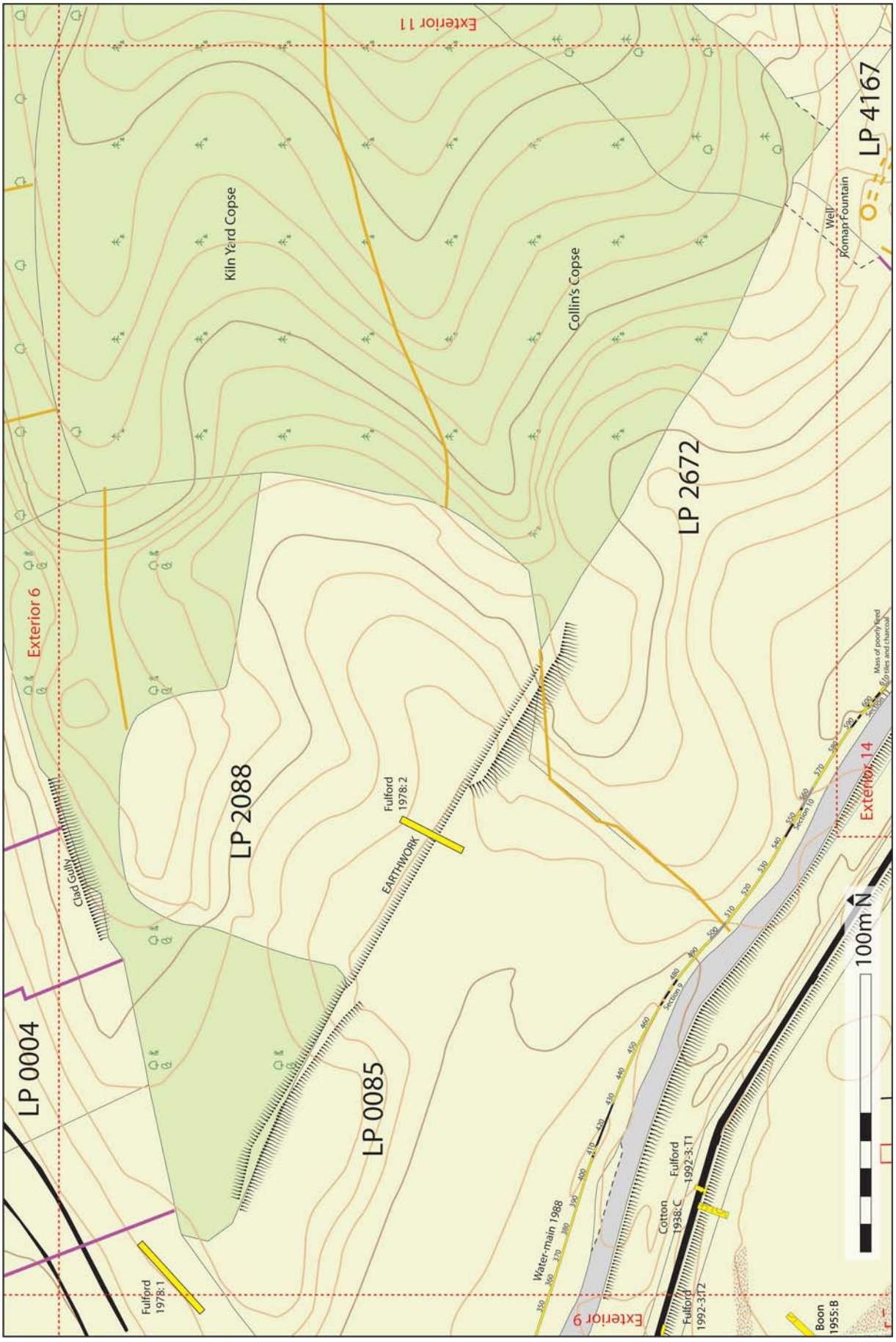

FIG. 6.29. Exterior 10 – excavations, aerial photography and fieldwalking.

FIG. 6.30. Exterior 10 – fluxgate gradiometry (± 2 nT).

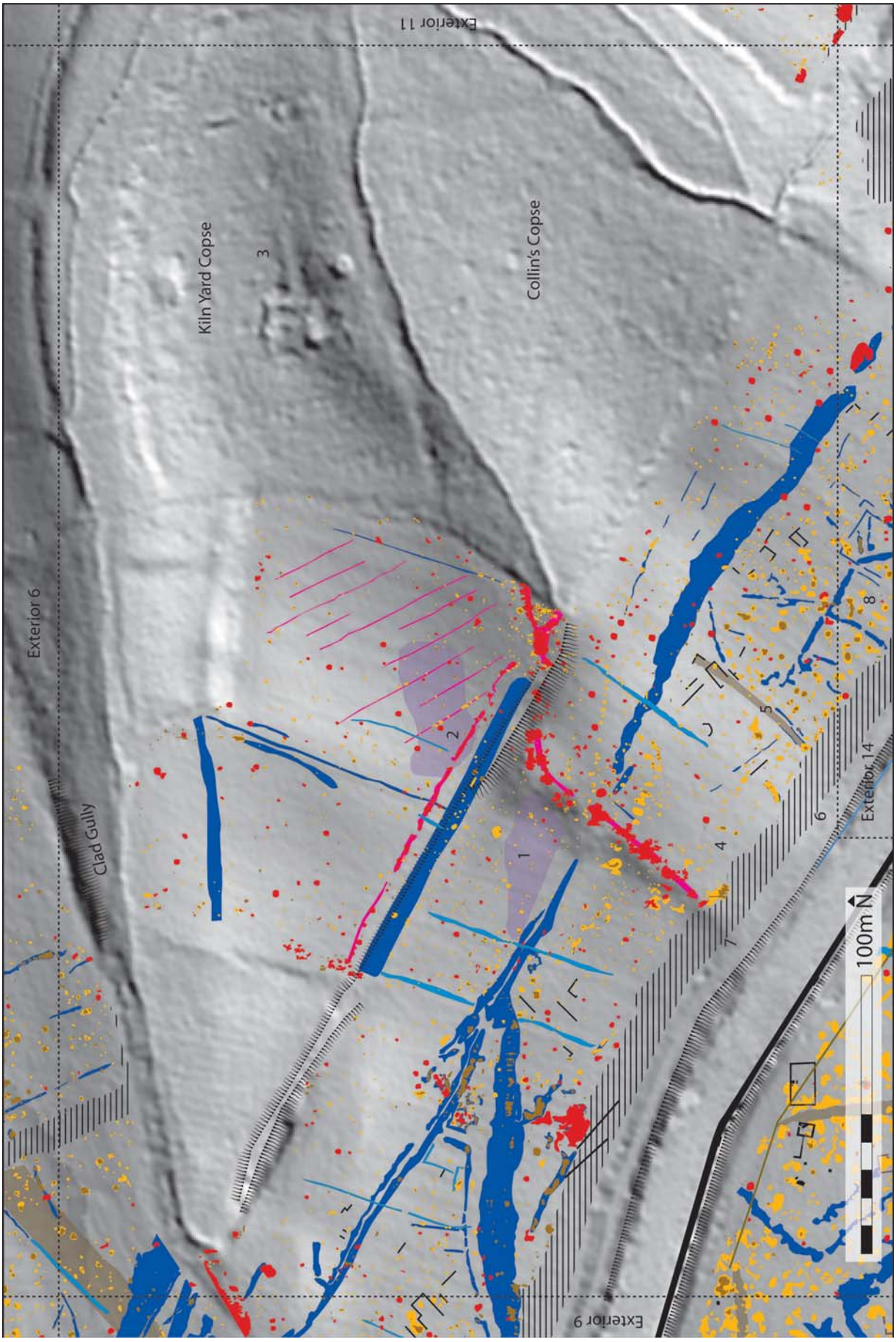

FIG. 6.31. Exterior 10 – geophysics interpretation on top of LiDAR data.

EXTERIOR 11 (FIGS 6.32–34)

FIELDWALKING

LP 0006: UoRSP found 3 flakes and 1 Roman sherd and a few fragments of Roman/medieval tile to the north-east of this sheet.
LP 6000: UoRSP found 3 flakes, 1 Iron Age sherd and 5 Roman sherds in a slight cluster in the middle of the field.
LP 6281: Corney walked over 3–5 seasons, with no significant finds reported.
LP 7667: UoRSP found 1 flake and 2 Roman sherds.

OTHER INTERVENTIONS

Unlocated 1906, Antiquaries, kilns (St John Hope and Stephenson 1910, 327–9).

KEY FEATURES

The fluxgate gradiometry of much of the area is disturbed by the overhead power cables.

The area sloping to the north-north-west away from the Amphitheatre down to the brook has within it a series of linear features. A series of parallel anomalies along the contour of the slope may be natural geological features [1], but the way one on the western side of LP 6281 is so much more distinct opens up the possibility that this represents another defensive line [2]. Perpendicular to these are two parallel linears which are again fairly indistinct [3]. However, they do point up the slope towards the northern entrance of the Amphitheatre, so may represent a road. Various slighter rectilinear anomalies exist on the eastern side in LP 7667 on a similar alignment, suggestive of field patterns [4–5].

Within the woods the LiDAR data reveal a number of drainage ditches [6], and within LP 6000 what looks like another ploughed out land boundary [7].

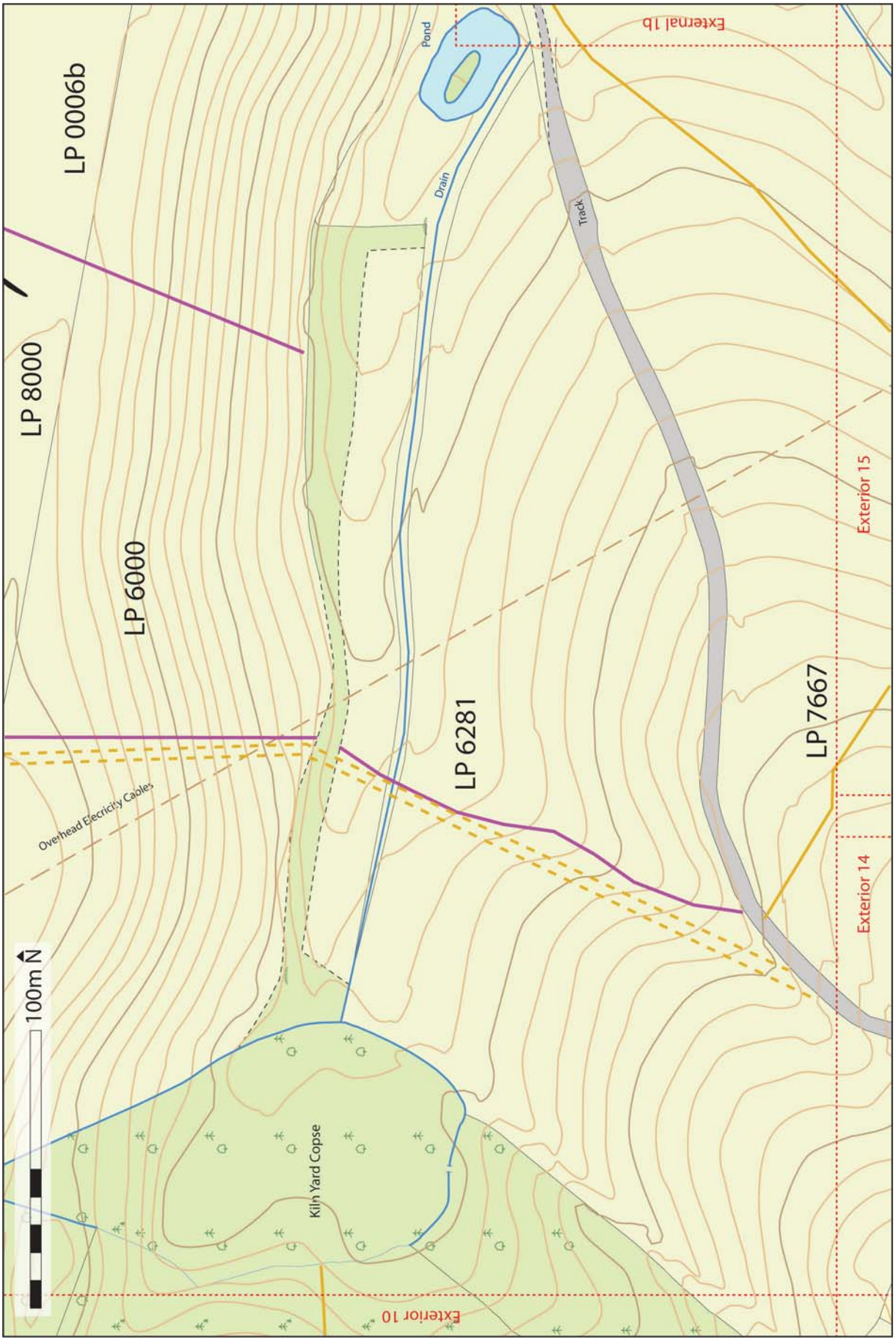

FIG. 6.32. Exterior 11 – excavations, aerial photography and fieldwalking.

FIG. 6.33. Exterior 11 – fluxgate gradiometry (± 2 nT).

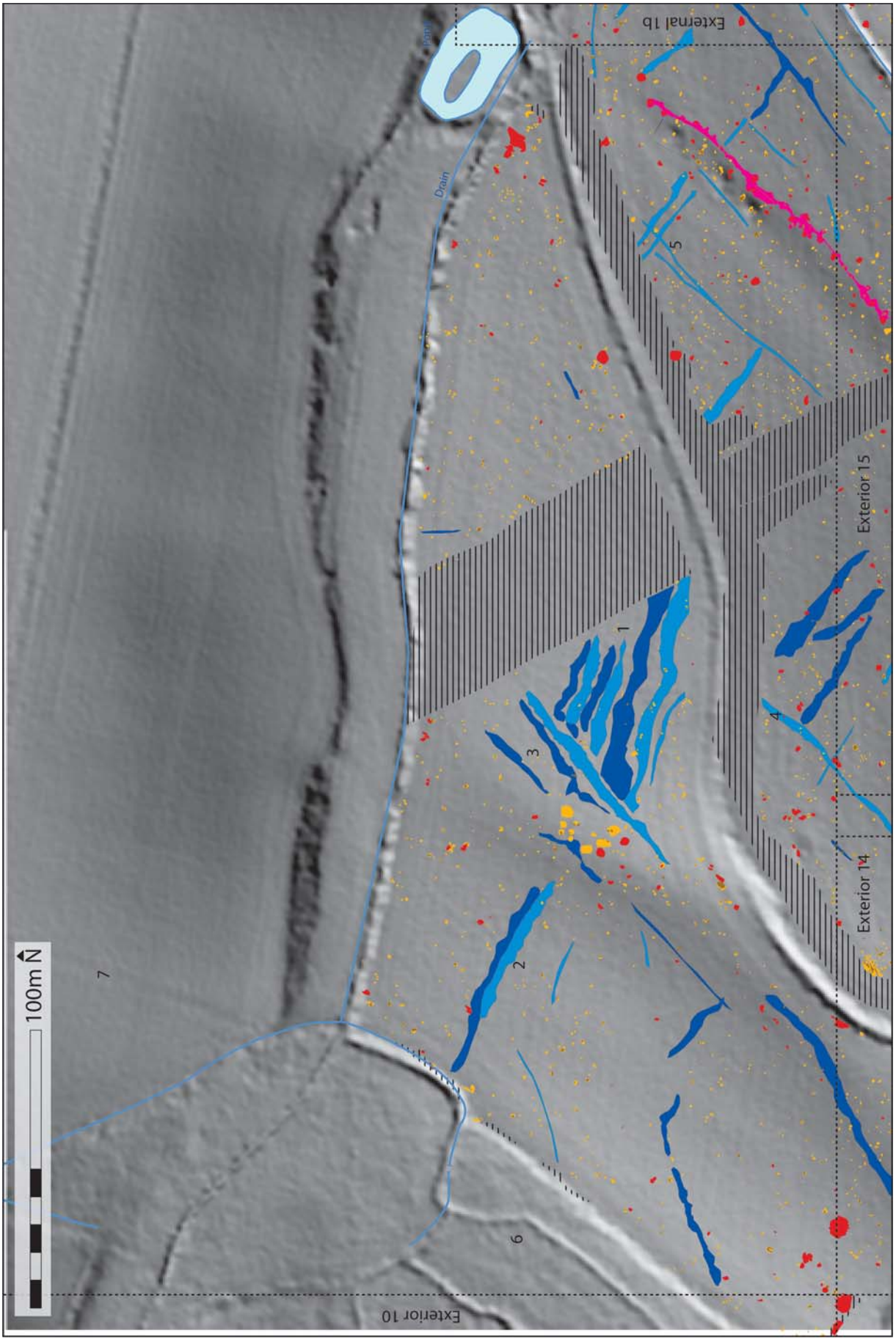

FIG. 6.34. Exterior 11 – geophysics interpretation on top of LiDAR data.

EXTERIOR 12 (FIGS 6.35–37)

FIELDWALKING

LP 2100, 3950 and 4172: Corney walked over 3–5 seasons, 1 ceramic group identified.
LP 2100: UoRSP found nothing in this corner of the field around the road-line.
LP 4172: UoRSP found Roman pottery and CBM following Corney's distribution along the Roman road-line, with a light scattering elsewhere. Flints also came from the field.
LP 9169: Corney walked over 1–2 seasons, with no significant finds reported.

OTHER INTERVENTIONS

LP 4172	1956, Boon, Trench G (Boon 1958a, 17–20; 1969).
LP 3950	1956, Boon, Trenches C and C1–C4 (Boon 1958a, 17–20; 1969).

KEY FEATURES

The North-West Annex just clips this sheet and is discussed along with Boon's sections in the section on the Outer Earthworks. Otherwise, this area is dominated by the road leading to Cirencester (Margary 41a).

The road to Cirencester and its parallel enclosures

The road-line as marked on OS maps is reasonably accurate. The road seems to pass through a gap in the North-West Annex defensive work [1], though it could easily have been backfilled with gravel to produce the same result, so need not imply the defence is later.

There is a rectilinear arrangement of enclosures on either side of it, revealed by both the aerial photography and geophysics [2–3]. They seem to take no account of the North-West Annex, suggesting they are later. Within these enclosures there are higher densities of pit-like features, and, occasionally to the east of the sheet, the ephemeral traces of possible buildings which generally correlate with the suggested ceramic building material scatters found by Corney. Most of the pottery collected was later Roman:

- LR:87, mid-third to late fourth century: 6700 m^2, 4.60 kg (coins incl. 1 Constantinian, 2 Valentinianic or Theodosian) (incl. bronze slag).

A droveway to the west

Maclauchlan and others had long suspected a direct route to the west should exist, and Boon indicated his suggested line on the plan at the back of his monograph (Boon 1974, plan). In his version, the road out of the West Gate bifurcated within the North-West Annex to form two roads, one to Cirencester and another to Bath.

It is possible that this road exists. There is a series of major linears here on both the aerial photography and the geophysics [4]; so while the road does not show up as a hardened gravel surface on the aerial photography in these fields, there may have been a softer droveway or lane on this alignment [5].

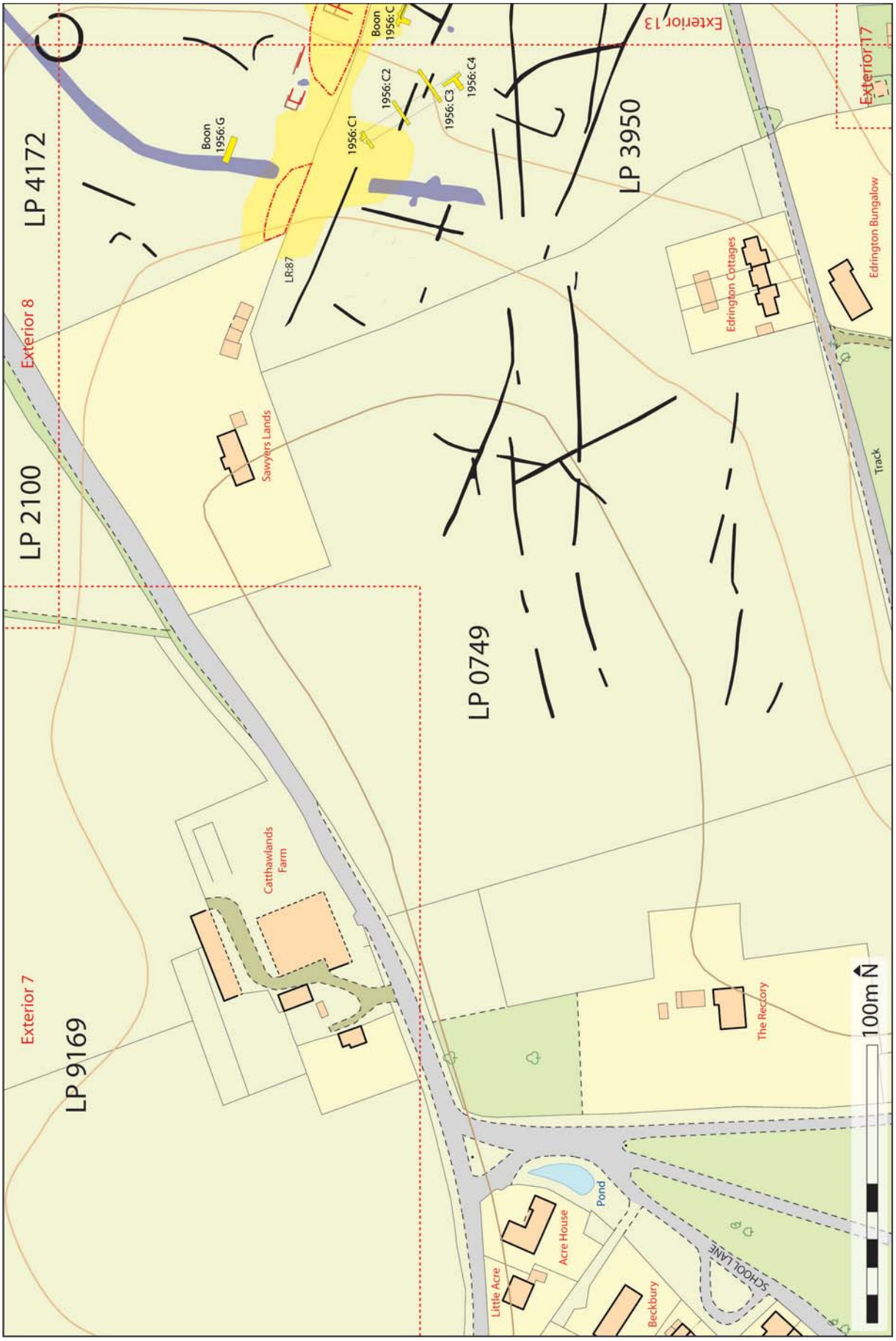

FIG. 6.35. Exterior 12 – excavations, aerial photography and fieldwalking.

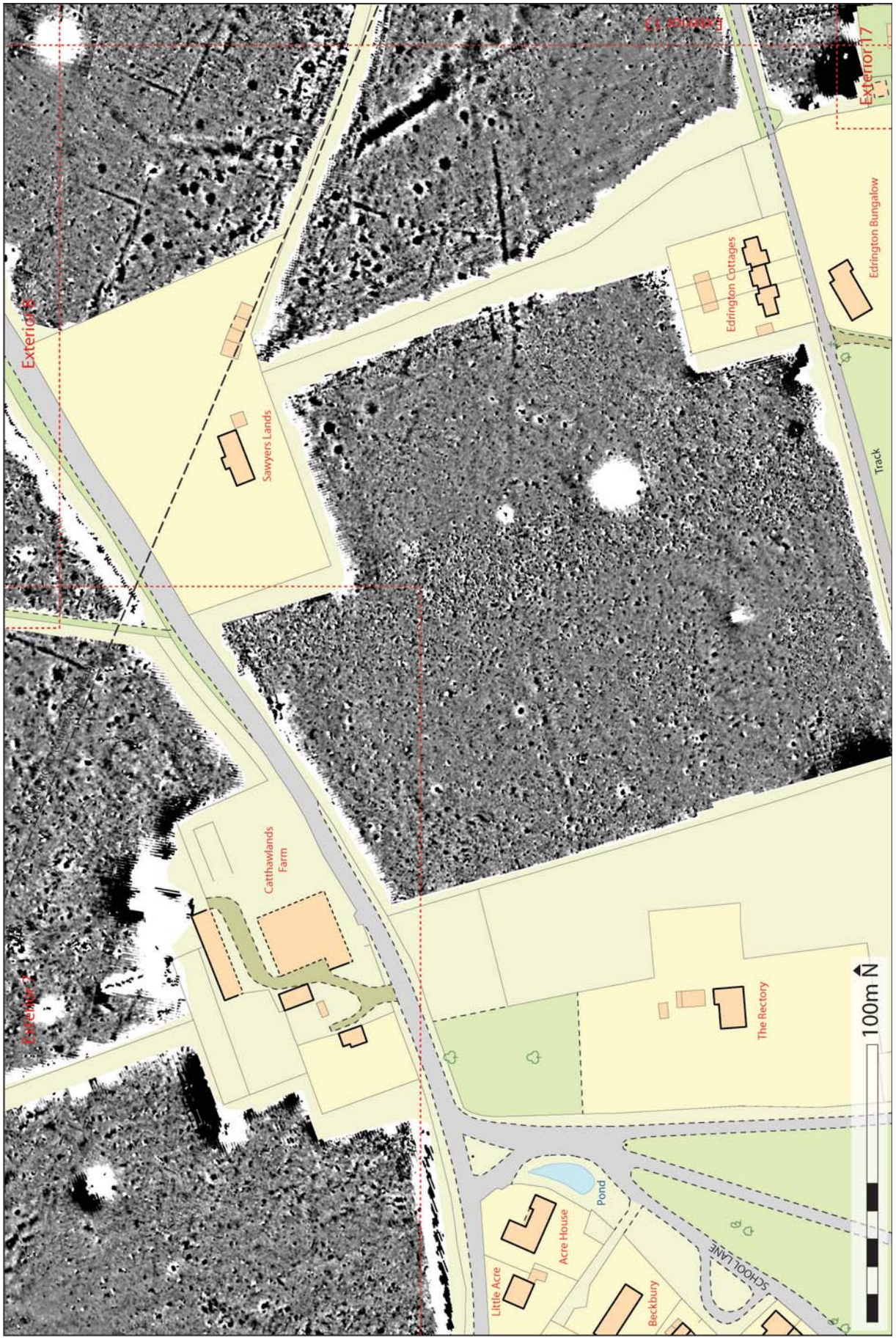

FIG. 6.36. Exterior 12 – fluxgate gradiometry (± 2 nT).

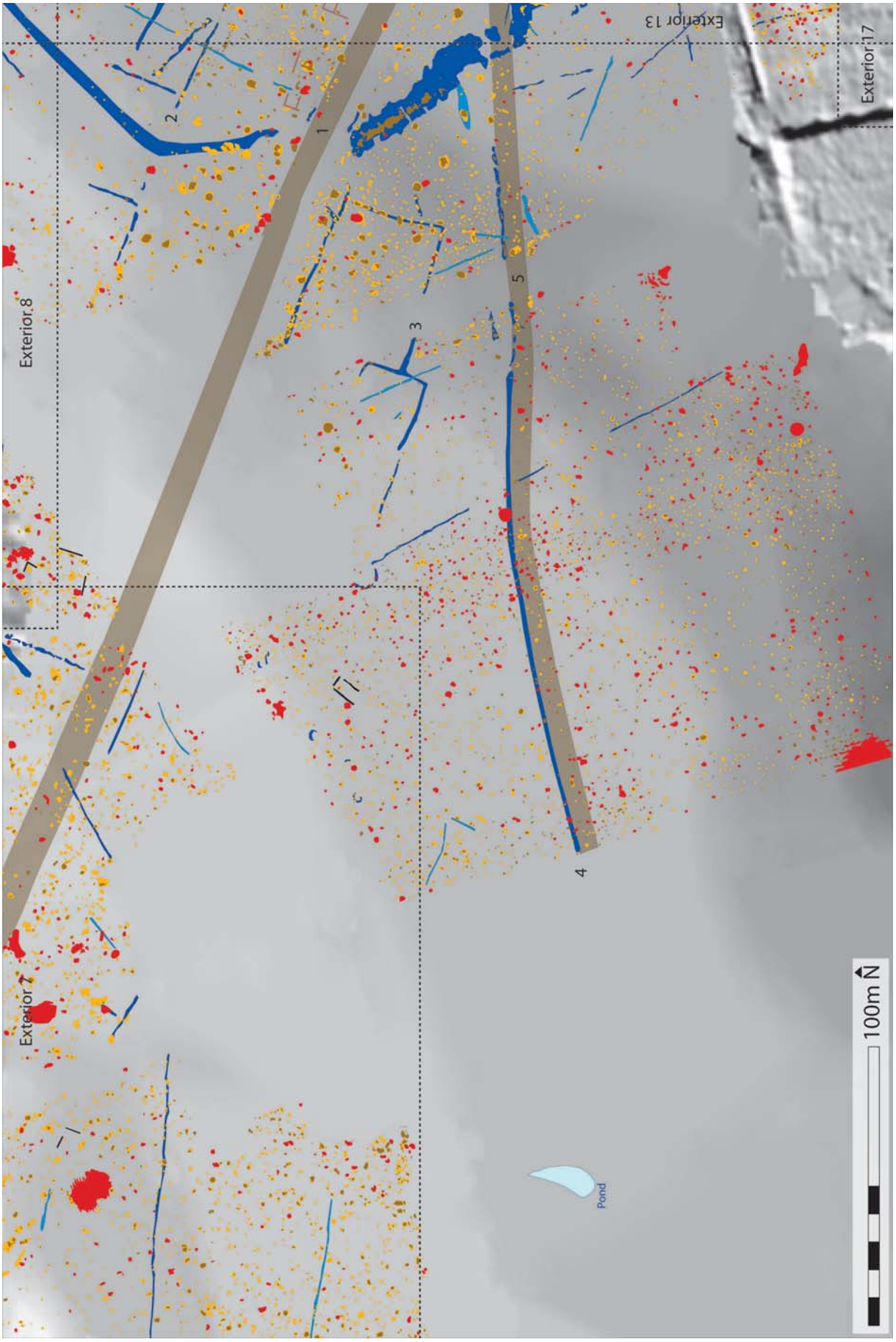

FIG. 6.37. Exterior 12 – geophysics interpretation on top of LiDAR data.

EXTERIOR 13 (FIGS 6.38–40)

FIELDWALKING

LP 3950 and 4172: Corney walked over 3–5 seasons, 16 ceramic groups identified.
LP 4172: UoRSP found Roman pottery and CBM following Corney's distribution along the Roman road-line, with a light scattering elsewhere. Flints also came from the field, particularly clustered in the area of the potential cremation cemetery.
LP 5333: Corney walked over 6–10+ seasons, 8 ceramic groups identified. UoRSP found Roman pottery and CBM conforming to Corney's distribution, and some flints. No Iron Age pottery was identified.
LP 5567: UoRSP found some unidentified brick, but no pottery or flint.

OTHER INTERVENTIONS

Town Wall	1909, Antiquaries, various (St John Hope and Stephenson 1910).
LP 5333	1909, Antiquaries, West Gate (St John Hope and Stephenson 1910).
LP 6667	1939, Cotton, multiple trenches (Cotton 1947, 135).
LP 5567	1939, Cotton, Sites J and K (Cotton 1947, 135).
LP 5859	1954, Boon, Trench A (Boon 1958a, 13; 1969, 5–6).
LP 3950	1956, Boon, Trenches C, and C1–C4 (Boon 1958a, 17–20; 1969).
LP 3540	1956, Boon, Trenches Fa and Fb (Boon 1958a, 17–20; 1969).
LP 4172	1978, Fulford, Trench 10 (Fulford 1984, 26).
LP 4172	1979, Corney, Trenches A and B (Corney 1984, 293–7).
Town Wall	1992–3, Fulford, Trench 3 (Fulford *et al.* 1997, 142–5).

KEY FEATURES

This area has perhaps the densest palimpsest of features around Silchester. The Town Wall, the Inner Earthwork, the Outer Defences (Sandy's Lands) and the North-West Annex all pass through this area, and all are discussed in the defences section.

Part of the area within LP 5567 is very disturbed; there were once long narrow sheds erected here which can be seen on some OS plans and NMR photographs in the 1960s, but they had gone by the early 1980s [1].

Burial enclosures and earliest material

The majority of the pre-Claudian and Claudio-Neronian pottery was found contained by the Inner Earthwork defences [2]. Much of it may have been cast up or disturbed as the Town Ditches [3] were dug at a later date.

- PC:9, Augustan to mid-first century A.D.: 1400 m^2, 1.80 kg.
- PC:12, Augustan to mid-first century A.D.: 150 m^2, 0.30 kg.
- PC:13, Augustan to mid-first century A.D.: 250 m^2, 0.20 kg.
- CN:21, Claudio-Neronian: 2700 m^2, 5.55 kg.
- CN:25, Claudio-Neronian: 800 m^2, 1.40 kg.
- CN:26, Claudio-Neronian: 700 m^2, 0.70 kg.
- CN:27, Claudio-Neronian: 100 m^2, 0.20 kg.

Outside and adjacent to the Inner Earthwork ditch was a series of at least three large rectangular enclosures [4–6], with one or more significant large anomalies in roughly central positions suggestive of Later Iron Age or Early Roman high-status burial enclosures.

Early features on a different alignment: another road and cremations

There is a series of later first- and early second-century features that appear to be on a somewhat

FIG. 6.38. Exterior 13 – excavations, aerial photography and fieldwalking.

FIG. 6.39. Exterior 13 – fluxgate gradiometry (± 2 nT).

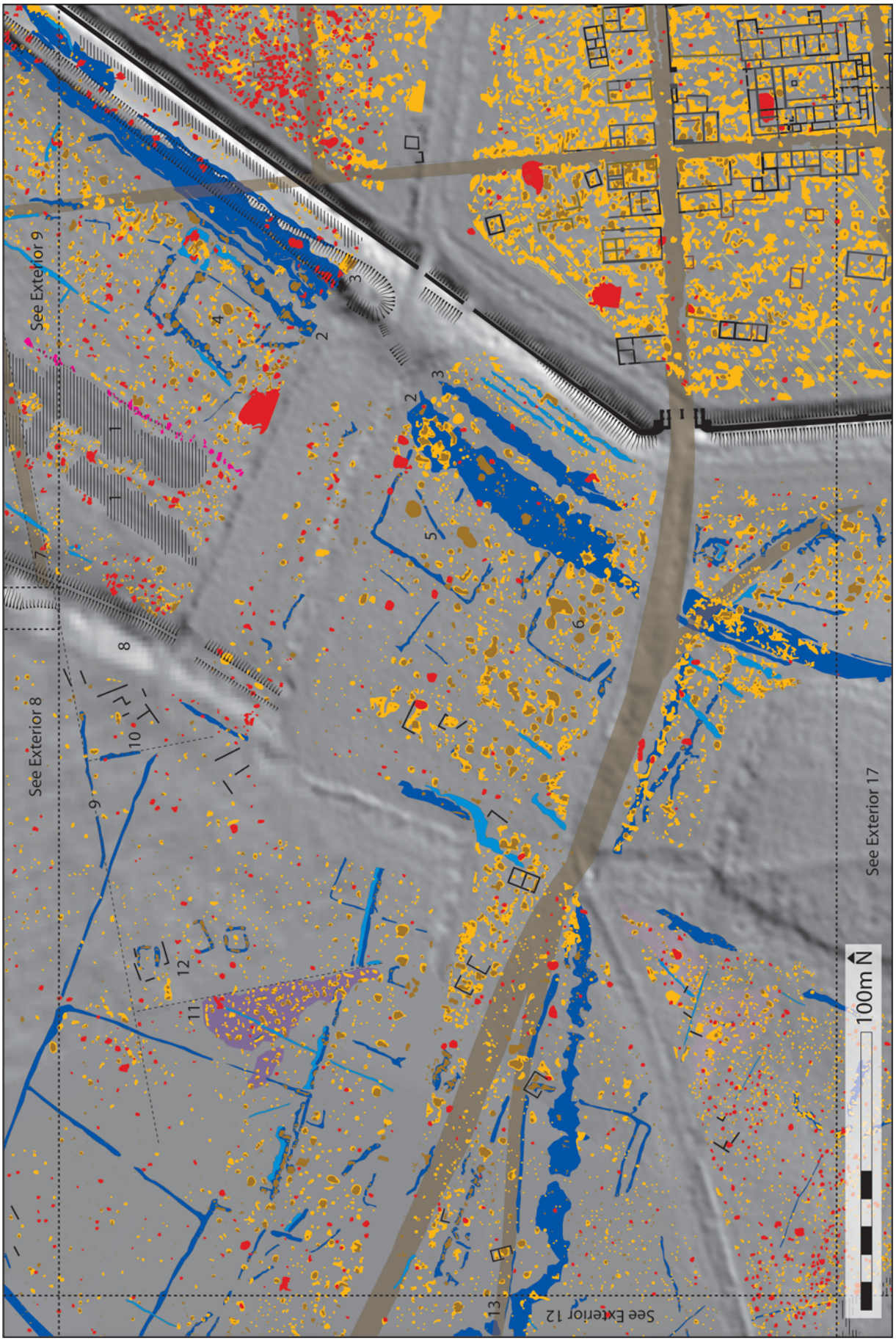

FIG. 6.40. Exterior 13 – geophysics interpretation on top of LiDAR data.

different alignment to the later road and associated enclosures. Cotton chased one of the streets in her Sites J and K [7] showing it went right up to the Sandy's Lands Outer Earthwork [8]. It was curious that it ran right up to it instead of terminating at its base, almost suggesting that it continued underneath. On the other side of the earthwork a linear can be seen continuing on the alignment [9], as well as a short distance away a perpendicular field division [10]. These linears are slight, but they are also continued in the pattern of the late first- to early second-century cremation cemetery sampled by Corney in 1979 [11]. A one-day excavation sampled two small areas. Area A contained six burials, of which three were excavated (2, 3, 4) and three left *in situ* (5, 6, 7). Area B contained one burial. 'The close spacing of the burials in Area A suggests that this cemetery was intensively used for some time.' The date range was A.D. 80–130 (Corney 1984, 293–7; Grew *et al.* 1980, 394–5). There is a distinctive geophysical signal which means we can trace the extent of the cemetery; this reveals it had a clear straight eastern boundary which also happens to be perpendicular to the projected road. On the other side of the boundary were three small square features which may have been related to the cremation rite or may be small individual cremation burial enclosures [12]. This area also had later first to early second-century pottery associated with it:

- FH:86, Flavian-Hadrianic: 2150 m^2, 3.85 kg (new scatter).

This collection of rectilinear features continuing out from a road off the street-grid under the Sandy's Lands earthwork strongly suggests that contrary to conventional wisdom the earthwork is later in date and possibly mid-second century or later; and the whole area appears to be reconfigured once the Town Earthwork and Wall were constructed with the third- and fourth-century enclosures constructed parallel to the road to Dorchester-on-Thames. Contextualising the cremation cemetery, Corney wondered if the Sandy's Lands earthwork represented the boundary of the town at the time, so the burials would have been outside (Corney 1984, 257–9); on the contrary, it would now appear a large new irregular insula on the western edge of town was enclosing the Late Iron Age/Early Roman enclosures and the potentially slightly later cremation cemetery, though both lay beyond the line of the old Inner Earthwork.

From somewhere in LP 4172 came two isolated bronze coins of Domitian (Corney 1984, 260).

Other occupation between the Outer Defences and the Town Wall

While the Inner Earthwork line may have demarked the early general spread of material, Flavian and later spreads of pottery splayed out along the road to the west, and in particular down to the south, though here still respecting the Inner Earthwork line. LP 5333 particularly attracted metal-detector users (Corney 1984, 245).

To the north of the Roman road:

- FH:40, Flavian-Hadrianic: 600 m^2, 1.20 kg.
- AE3:57, Antonine to early third century: 1050 m^2, 1.20 kg.
- AE3:58, Antonine to early third century: 150 m^2, 0.40 kg.
- LR:76, mid-third to late fourth century: 700 m^2, 0.40 kg.
- LR:77, mid-third to late fourth century: 1600 m^2, 1.30 kg.

To the south of the Roman road:

- FH:35, Flavian-Hadrianic: 2300 m^2, 4.55 kg (incl. 1 bronze coin of Trajan).
- FH:36, Flavian-Hadrianic: 650 m^2, 0.50 kg (incl. 1 bronze coin of Hadrian) .
- AE3:50, Antonine to early third century: 3900 m^2, 7.90 kg (incl. 2 bronze coins of Antoninus Pius, and several illegible *aes*).
- AE3:51, Antonine to early third century: 1900 m^2, 1.25 kg (incl. one plated denarius of Severus Alexander).
- LR:70, mid-third to late fourth century: 4500 m^2, 11.65 kg (incl. 3 Gallic Empire, 2 Constantinian, 1 Valentinianic) (incl. bronze slag and crucible fragments).
- LR:71, mid-third to late fourth century: 2300 m^2, 1.15 kg (incl. bronze slag).

The road to Cirencester and associated enclosures

From beyond the Sandy's Lands Outer Earthwork [8], enclosures to the north of the road become visible with a number of buildings showing as cropmarks, ephemeral traces in the geophysics and ceramic building material scatters. Nearly all the material on this alignment is Antonine or later. Corney considered the visible buildings on the aerial photographs were probably mid-third to fourth century as this was the date of the majority of the surface scatter. He saw them as a series of rectangular enclosures with 'their short axis facing the road … Each of the buildings visible from the air appears to take up the forward position of one of these enclosures. This is suggestive of a workshop-cum-dwelling unit, with space to the rear for further activity or cultivation. Pits are visible within some of these plots …' (Corney 1984, 268). He also interpreted the sequence of these enclosures as (1) the construction of the North-West Annex; (2) the layout of the rectilinear field-system parallel to the Cirencester road; and (3) the cutting through it of the road to the west. ApSimon had excavated for Boon where this road and earthwork met which showed it crossed by a gravel causeway (Boon 1969, 20) [13]. 'The causeway itself contained no dateable material, although a section through the earthwork close by showed that the ditch was still filling in the later third and fourth centuries. This would suggest that the fields west of the town are probably all late Roman in date' (Corney 1984, 269).

- AE3:56, Antonine to early third century: 450 m^2, 0.80 kg.
- LR:75, mid-third to late fourth century: 500 m^2, 0.85 kg.
- LR:87, mid-third to late fourth century: 6700 m^2, 4.60 kg (incl. 1 Constantinian, 2 Valentinianic or Theodosian) (incl. bronze slag).
- LR:88, mid-third to late fourth century: 450 m^2, 0.30 kg.
- LR:89, mid-third to late fourth century: 600 m^2, 0.95 kg.

EXTERIOR 14 (FIGS 6.41–43)

FIELDWALKING

LP 3862, 4761, 4960, 6281 and 6346: Corney walked over 3–5 seasons, 7 groups identified.
LP 6346: UoRSP found within the area on this sheet a scatter of Roman pottery, CBM, a few flakes, and some medieval pottery, the latter mainly to the south side of the field between the Roman and modern roads.
LP 7667: UoRSP found a very light scatter of Roman sherds and flint and no CBM, which is perhaps surprising considering there is a demolished early modern building in the south-west corner of the field.

OTHER INTERVENTIONS

Town Wall	1865, Joyce, North-East Gate (*Journal* 18 May 1865).
Town Wall	1893, Antiquaries, North-East Gate (Fox and St John Hope 1894, 237).
Town Wall	1938, Cotton, Sites A, B and F (Cotton 1947, 123–32).
Town Wall	1939, Cotton, Site G (Cotton 1947, 133–4).
LP 6346	1976, Fulford, Trench 3 (Fulford 1984, 26, 82).
Town Wall	1981, Fulford, North-East Gate (Fulford 1984, 71–2).
LP 4761	1979–85, Fulford, excavation of the Amphitheatre (Fulford 1989c).
LP 8800	1988, water main watching-brief (Fulford *et al.* 1997, 154–66).
St Mary's Lee	2012, TVAS archaeological evaluation and watching-brief (Porter 2012; 2013).

KEY FEATURES

Modern features

There was a demolished cottage within LP 7667. This is still shown intact with an enclosure and garden, with the building at the north end, on the County first OS edition 1874 through to the 1910 editions [1]. Behind the Amphitheatre, The Mount is an early cruck-built farmhouse dating from *c.* 1405 (Bullen *et al.* 2010, 483). There is a suggestion that a charity school was based here in the later eighteenth century (Y. and Warner 1795, 168). Other buildings in the vicinity may have existed [2]. In front of the Amphitheatre late seventeenth- to early eighteenth-century pottery, glass and building material were found, as if a building was once here, though none was recorded on Stukeley's 1722 plan or illustration when the area was an orchard, or on any subsequent cartography [3]. This area is noisy on the geophysics and was used for dumping material and levelling up when the Amphitheatre was excavated. In several locations various temporary agricultural buildings used to exist, chicken coops within LP 3862 and a series of long sheds probably for poultry in LP 3457 within the Town Walls [4–5].

The 'fountain'

A fountain or *nymphaeum* is shown on several maps within LP 4167 [6]: 'the inhabitants of the little farm at the Amphitheatre state that after hot summers a road may be traced under the herbage passing onward to a beautiful spring of perennial water, where was probably a *nymphaeum*, large pieces of wrought stone having been found there' (Joyce 1881b, 346). From this description Boon imagined parallels with the structures around Coventina's Well (Northumberland) or at Chedworth (Gloucestershire): 'But at present there is no certainty that the stones were not carried there in later times to act as stepping stones'; he also wondered if these large coping-stones had not come from the entrance or outer wall of the adjacent Amphitheatre (Boon 1974, 148, 159–60).

The Amphitheatre

The Amphitheatre was put on the map by Stukeley's visit whereupon it then entered the broader

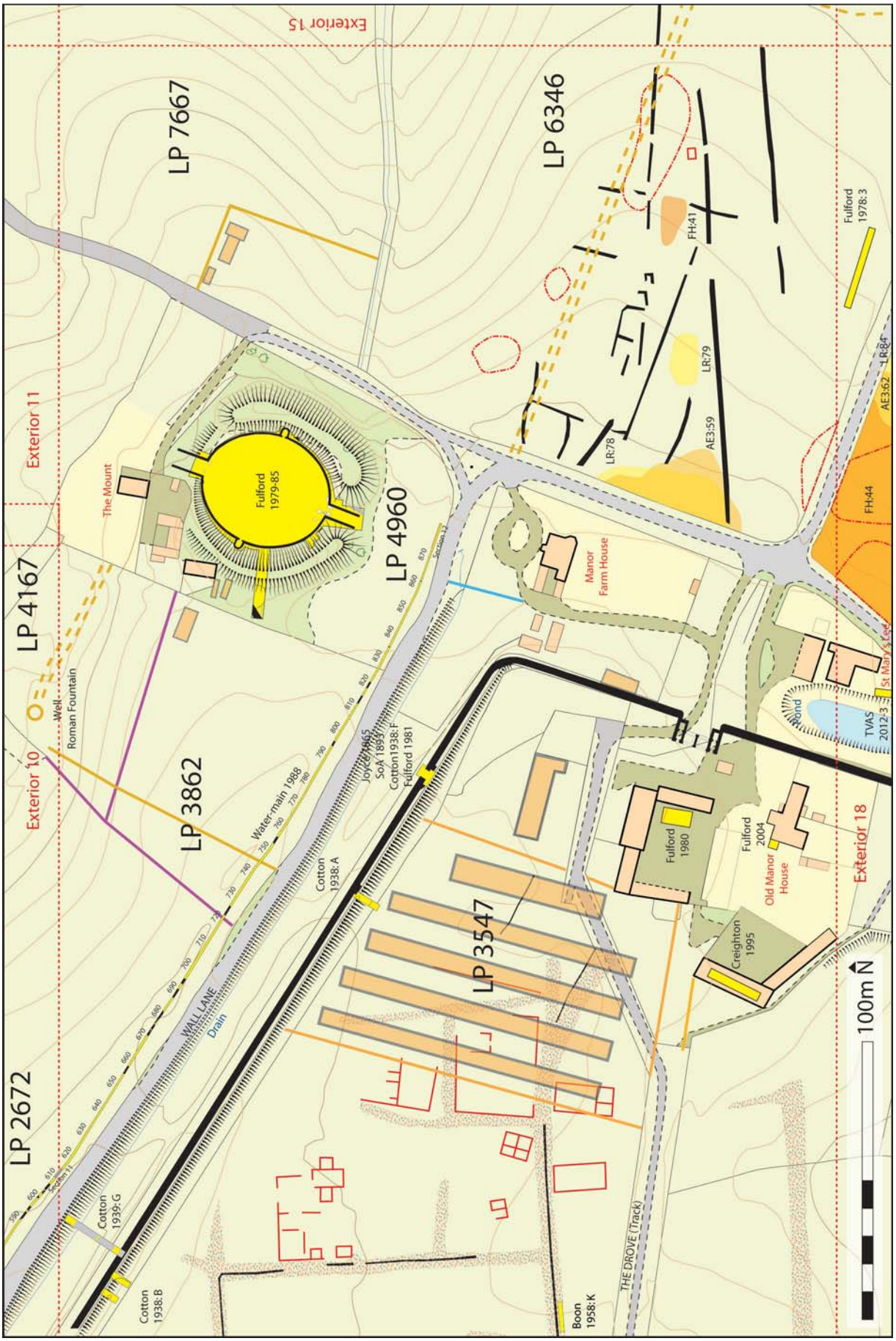

FIG. 6.41. Exterior 14 – excavations, aerial photography and fieldwalking.

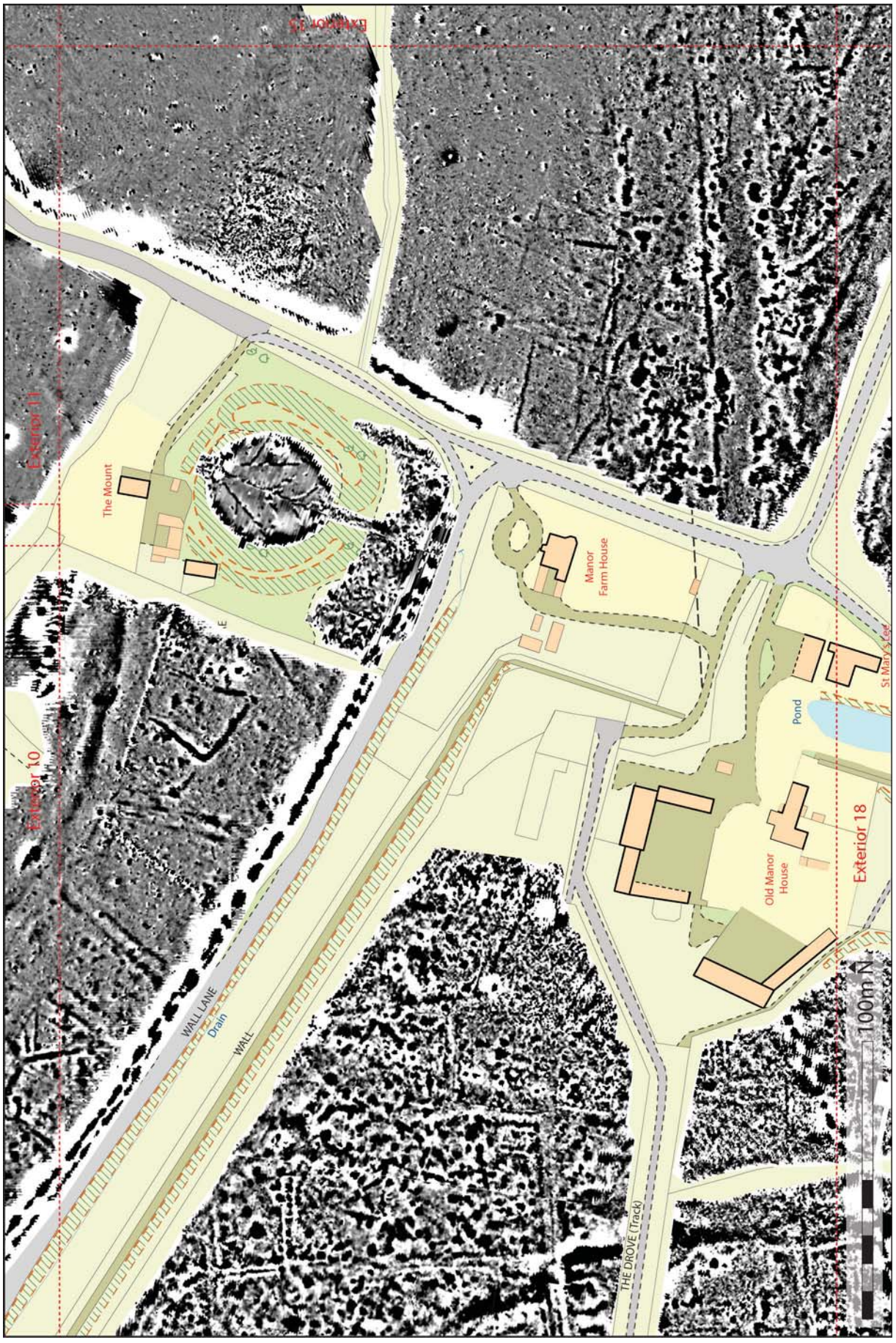

FIG. 6.42. Exterior 14 – fluxgate gradiometry (± 2 nT).

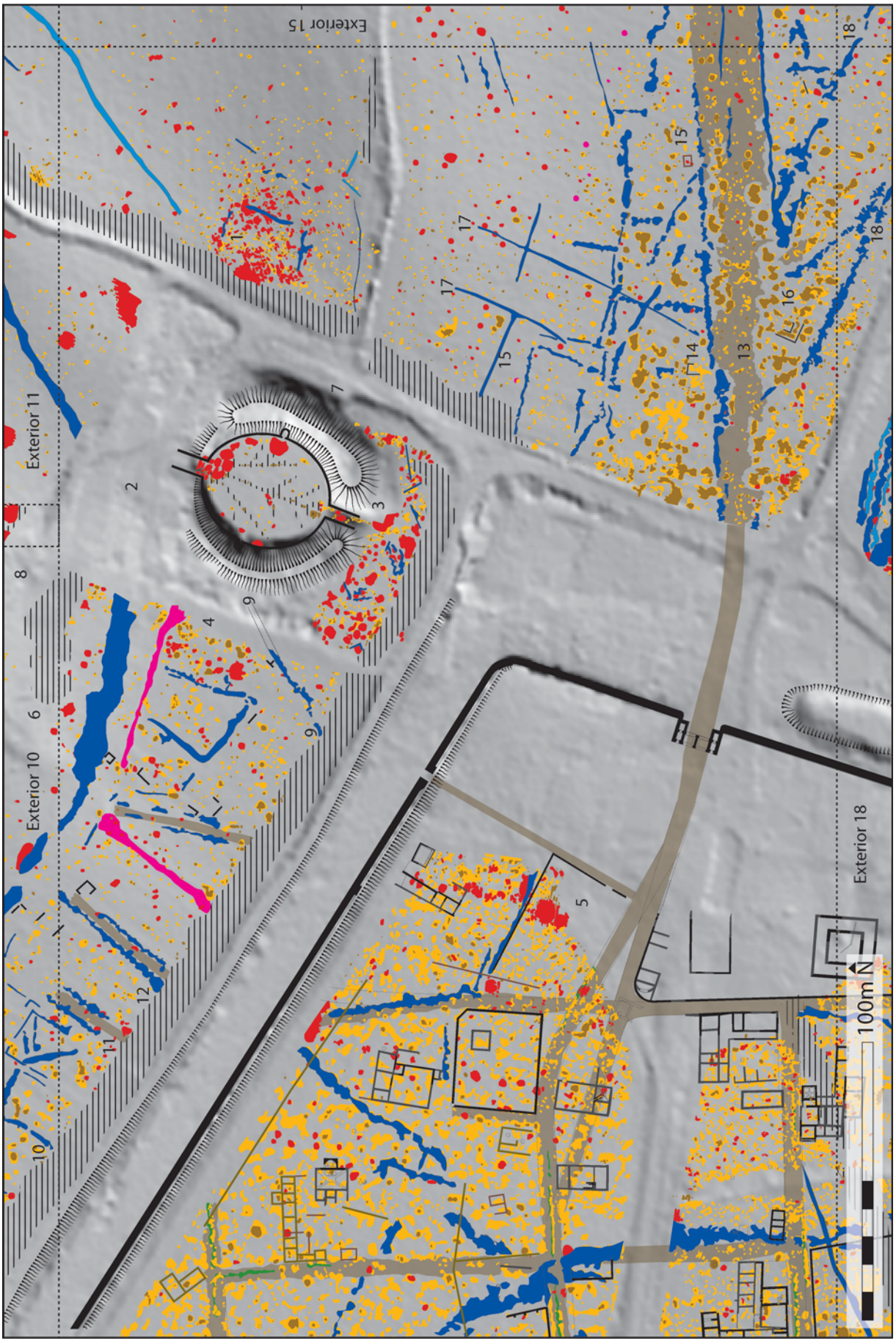

FIG. 6.43. Exterior 14 – geophysics interpretation on top of LiDAR data.

literature (Stukeley 1776, TAB. XLIII; Strange 1779, 67). Early illustrations show it with cattle within, and occasionally standing water (Wright and Fairholt 1845). While the Antiquaries were excavating Mill Stephenson would guide visitors around saying it was called the 'Lion's Den' by the locals (Ditchfield 1905, 67). Alas their ambition to excavate it was thwarted by the refusal of the landowner, Mr Benyon, to give them permission to excavate anything north and east of the town, at which point they went back to referring to it as the 'supposed' Amphitheatre (Anon. 1911, 179). During Boon's era at Silchester, he considered the Amphitheatre to be early in date on the basis of analogy with those at Chichester, Cirencester and Maumbury Rings (Boon 1974, 94, 148); but solid evidence only emerged once the monument was taken into guardianship by the DoE in 1979, whereupon the overgrown banks and poor drainage were attended to and investigations carried out by Fulford.

The 1979–85 excavation showed the Amphitheatre was created by digging out about 2 m below the ground surface to create the banks. Various phases were identified before it fell into ruin, was abandoned, then reused in the eleventh to thirteenth centuries as the location of a fortified hall. Fulford's phasing and dating is as follows:

- Timber Phase 1 (*c.* A.D. 55–77).
- Timber Phase 2 (*c.* mid-second century).
- Stone Phase 1 (Hadrianic-Antonine *terminus post quem*, perhaps early third century).
- Stone Phase 2 (mid-third century, perhaps *c.* 250s).
- Dereliction (fourth to fifth century).
- Robbing of much of stonework (eleventh to twelfth century).
- Aisled Manor Hall (eleventh to thirteenth century).

Sources: main report: (Fulford 1989c); interim reports (Fulford 1982b; a; 1983; 1985c); interim notes: 1979 season (Grew *et al.* 1980, 394); 1980 season (Grew *et al.* 1981, 362); 1981 season (Rankov *et al.* 1982, 389–90); 1982 season (Frere *et al.* 1983, 330–1); 1983 season (Frere *et al.* 1984, 324–-5); 1984 season (Frere *et al.* 1985, 311); 1985 season (Frere *et al.* 1986, 420–1); reviews: (Boon 1990; Bomgardner 1991); sample secondary literature: national survey (Allcroft 1919); comparison with London (Bateman 1997, 61–5; Bateman *et al.* 2008, 97–114); national context (Wilmott 2009; 2008).

Evidence from in front of the Amphitheatre from the water main watching-brief showed a complex series of cuts and dumps with mainly second-century pottery, though also a sherd of later Oxfordshire ware. This would correlate with the major construction phases of the stone Amphitheatre.

The topographic survey conducted for the excavation showed a major ditch on the eastern side [7] which was not matched by any evidence for a comparable ditch on the western side. In Taylor's 1759 map it was shown continuing a little further south and full of water. It is interpreted in this report as part of the evidence for a return to the North-East Annex ditch [8].

Early industrial activity

A range of evidence emerged for ceramic production early on in the vicinity of the Amphitheatre. In 1979, a trench through the western seating bank showed it sealed an earlier V-shaped ditch, 2.6 m wide and 1 m deep, which contained wasters and samian of mid-first-century date (Grew *et al.* 1980, 394; Fulford 1989c, 9) [9]. This ditch can be seen both in the geophysics and in the water main (at *c.* 796 m). Corney's fieldwalking evidence corroborates this with 'probable kiln debris immediately west of the Amphitheatre, associated with first-century pottery and wasters in an oxidised orange fabric' (Corney 1984, 246; see also Grew *et al.* 1980, 394–5). A series of enclosures was revealed in LP 3862, and some of these may relate to this ceramic production. Again, from within the water main, various evidence came to light including from 610–15 m: 'a conspicuous mass of poorly-fired tiles lying above a charcoal-rich layer and sealed by a layer of yellow clay … This feature is interpreted as the waste from a tile clamp, the first to be identified adjacent to the walled area of Silchester' (Fulford *et al.* 1997, 161) [10]. Close by other negative features produced generally early pottery rather than later: a single sherd of Late Iron Age grog-

tempered pottery from a ditch or pit at 656 m [11], and a Late Iron Age micaceous terra rubra dish, though also second-century material from a ditch or pit at 688 m [12].

The road to London

The road to London was bordered by two major ditches which show clearly in the geophysics and aerial photography *c.* 25 m apart [13].

On the northern side, at the same location as a later Roman pottery scatter (LR:79) Corney identified a three-room building with a central apsidal room, though this detail was not corroborated on either the RCHME interpretation (which did not identify a building), or the geophysics (which found elements of the building, but not the three rooms) [14]. He identified a second building with an apse slightly to the north of this which he corroborated with a tile scatter, though in this case there was no corroboration from the RCHME or geophysics [15] (Corney 1984, 273–6; Goodburn *et al.* 1976, 368–71). Adjacent to the road there were several small potential buildings, one of which Boon considered could be a mausoleum [16]; however, no pottery scatter was found above it by Corney to date it (Boon 1974, 186). Also south of the road there is the possibility of a Romano-Celtic temple in the geophysics, although the readings are by no means clear [16].

There are two parallel sets of linears at right-angles to each other which head off from the road; those heading to the north-east are 24 m apart [17], while those heading east-south-east are slightly wider apart at 33 m [18]. These could be roads and lanes or they could simply be vestiges of settlement boundaries parallel and to the rear of the modern roads. An RCHME aerial photograph suggests that the possible road to the east-south-east had a comparable hard surface to the London road, judging by the degree of parching of the crop (Corney 1984, 273, pl. XXXI).

- FH:41, Flavian-Hadrianic: 150 m^2, 0.55 kg.
- AE3:59, Antonine to early third century: 600 m^2, 0.35 kg.
- LR:78, mid-third to late fourth century: 600 m^2, 0.60 kg.
- LR:79, mid-third to late fourth century: 150 m^2, 0.25 kg.

EXTERIOR 15 (FIGS 6.44–46)

FIELDWALKING

LP 0136, 0259 and 6346: Corney walked over 3–5 seasons, 8 ceramic groups identified.
LP 0136: UoRSP found Roman pottery, brick and tile which dropped off to the east. There was no medieval pottery in this field.
LP 0259: UoRSP found a very low level presence of Roman pottery.
LP 6346: UoRSP found Roman pottery, including a concentration not picked up by Corney just to the north-west of his FH42 scatter. Medieval pottery concentrated on the south-western portion of the field within this sheet. There were sporadic flints.
LP 7667: UoRSP found only a single Roman sherd within this part of the field.

KEY FEATURES

The major burial area is south-west of the London road here within Exterior 18; however, there are some signs of burial on the northern side of the road. The Antonine to third-century spread AE3:60 included calcined bone [1]; it also included a broad scatter of *tegulae* which could be indicative of buildings or coverings over graves, though the geophysics patterning was not comparable to the response in the main inhumation area. Corney's scatter appeared to be in the corner of a rectangular enclosure off the road. Also on the north side is a series of possible small rectangular buildings which could be mausolea, though the geophysical responses from them are equivocal [2–4].

Also, north of the road, medieval ceramics were collected by the UoRSP survey, though no obvious geophysical features correlated with the pottery [5].

South of the road there is a Hadrianic to Late Roman scatter of pottery, *tegulae* and *imbrices* [6]. Corney also noted a high proportion of Oxfordshire ware mortaria of A.D. 180–240, which collectively suggest settlement rather than burials (Corney 1984, 263).

- FH:42, Flavian-Hadrianic: 200 m^2, 0.50 kg.
- FH:43, Flavian-Hadrianic: 150 m^2, 0.20 kg.
- AE3:60, Antonine to early third century: 500 m^2, 1.45 kg.
- AE3:61, Antonine to early third century: 1400 m^2, 1.90 kg.
- LR:80, mid-third to late fourth century: 200 m^2, 0.75 kg – with calcined bone and tiles.
- LR:81, mid-third to late fourth century: 900 m^2, 1.20 kg – with a flint and tile scatter.
- LR:82, mid-third to late fourth century: 2300 m^2, 2.25 kg – with a flint and tile and slag scatter.
- LR:83, mid-third to late fourth century: 300 m^2, 0.70 kg – with flint and tile scatter.

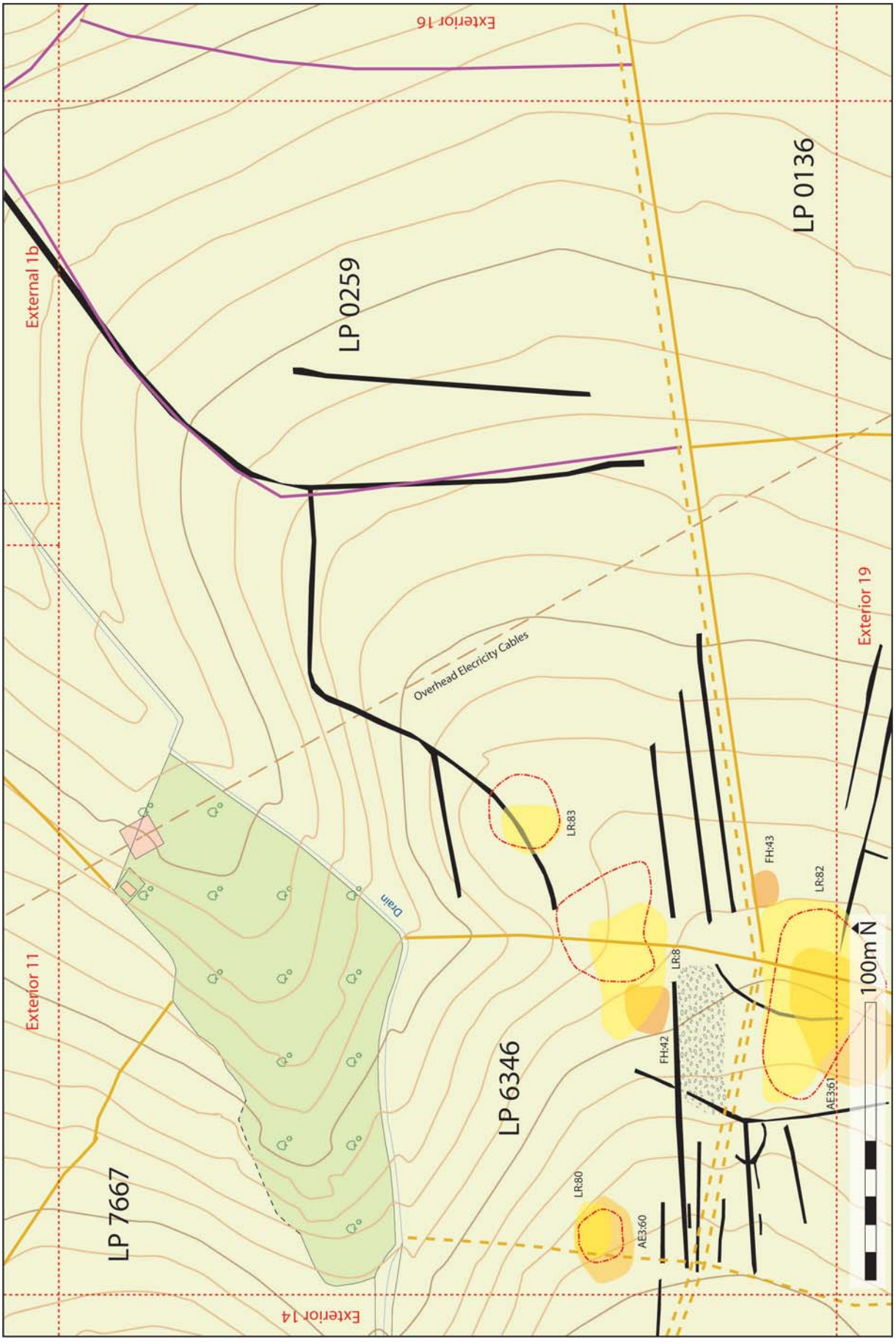

FIG. 6.44. Exterior 15 – excavations, aerial photography and fieldwalking.

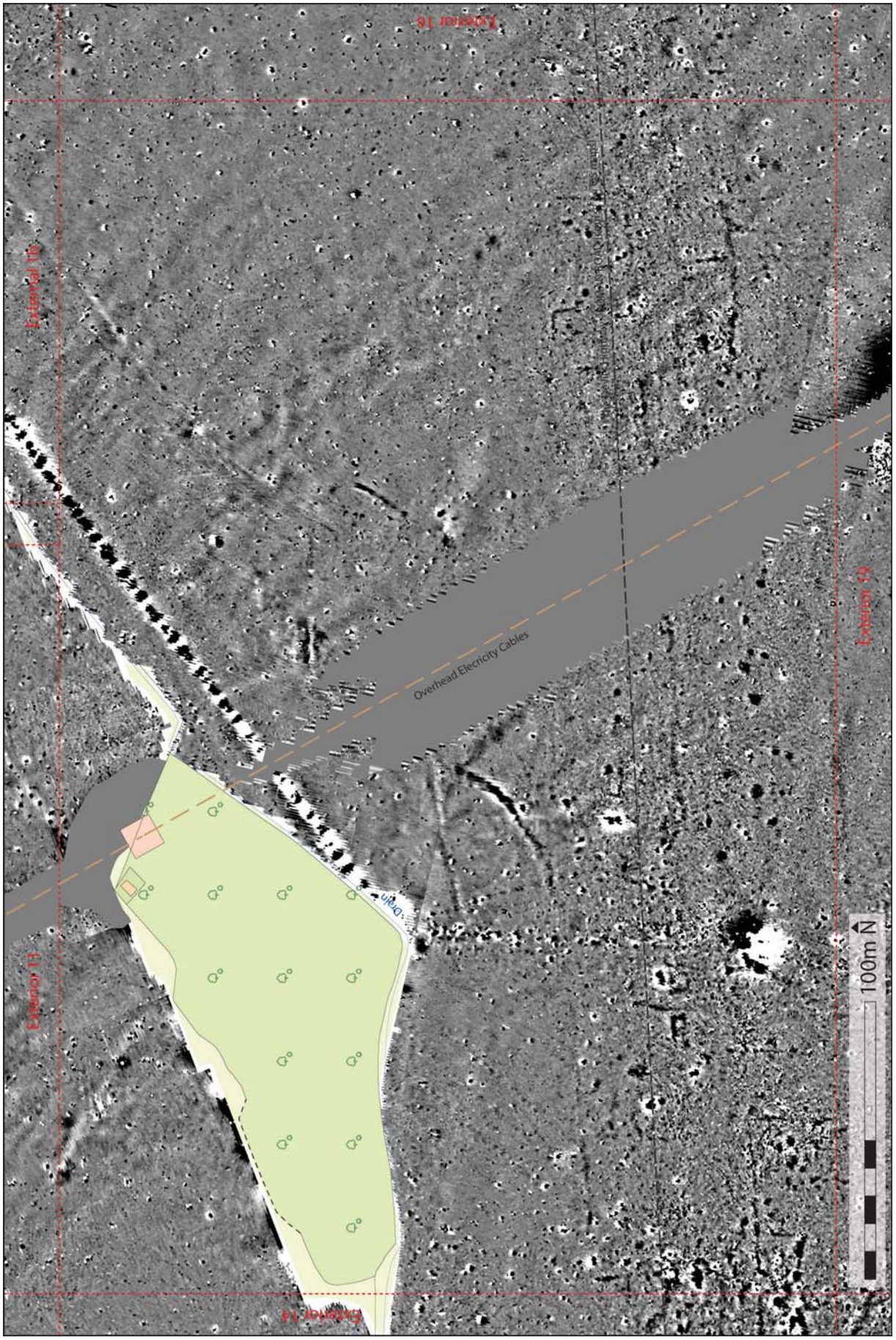

FIG. 6.45. Exterior 15 – fluxgate gradiometry (± 2 nT).

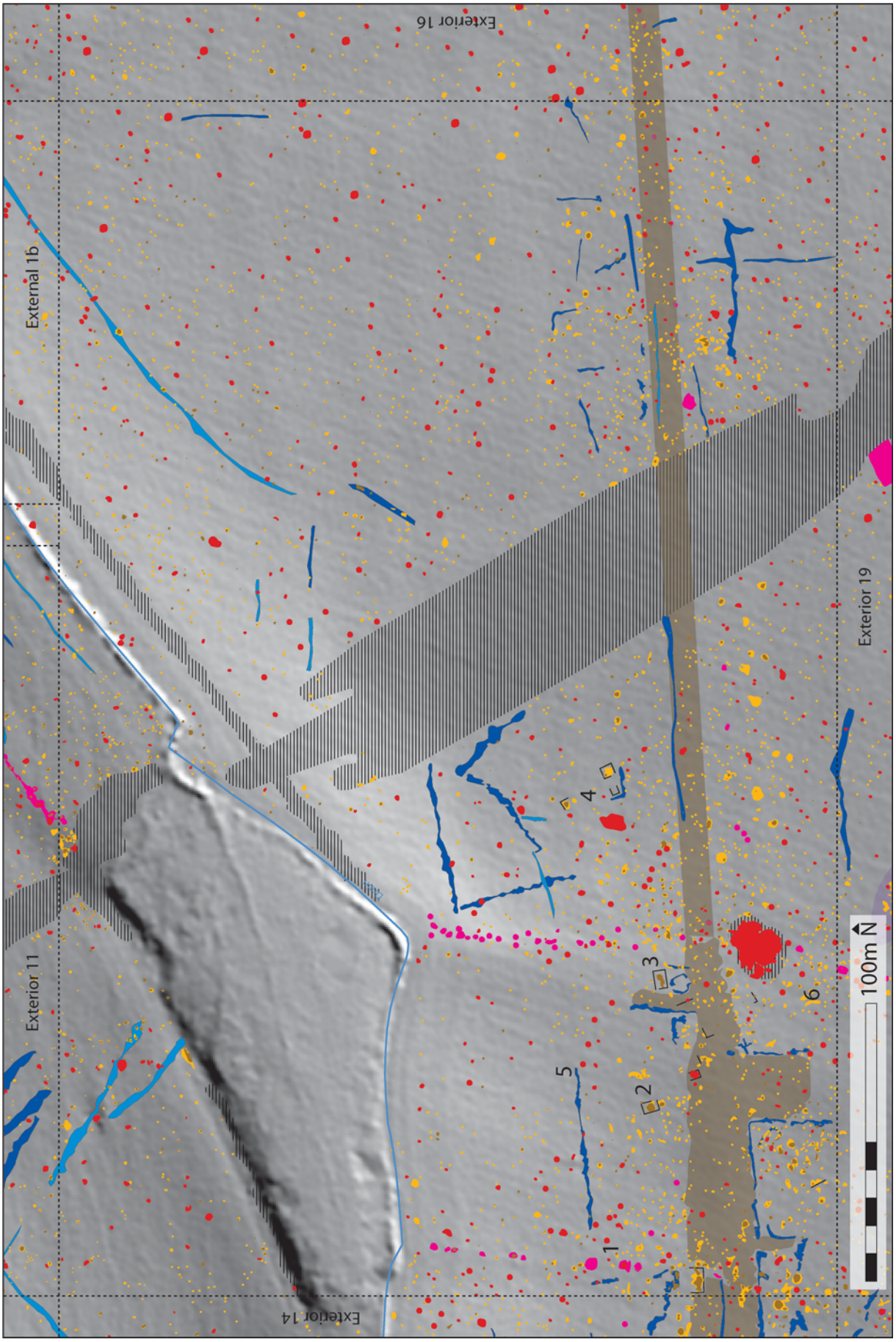

FIG. 6.46. Exterior 15 – geophysics interpretation on top of LiDAR data.

EXTERIOR 16 (FIGS 6.47–49)

FIELDWALKING

LP 0136 and 0259: Corney walked over 3–5 seasons, with no significant finds in this part. UoRSP also found nothing.
LP 2932: Corney walked over 1–2 seasons, with no significant finds reported.
LP 3871: UoRSP found a few fragments of Roman/medieval tile, some flints.
LP 4758: UoRSP found 4 sherds of Roman pottery, and a cluster of medieval pottery.

KEY FEATURES

Ford noted from the UoRSP survey the medieval cluster by the side of the Roman road along the Silchester Brook [1], noting the similarity in topographic location to the scheduled moated site 1.2 km to the south at Clapper's Farm. Otherwise there is little of note. The LiDAR shows up some ploughed-out field-boundaries within LP 2932.

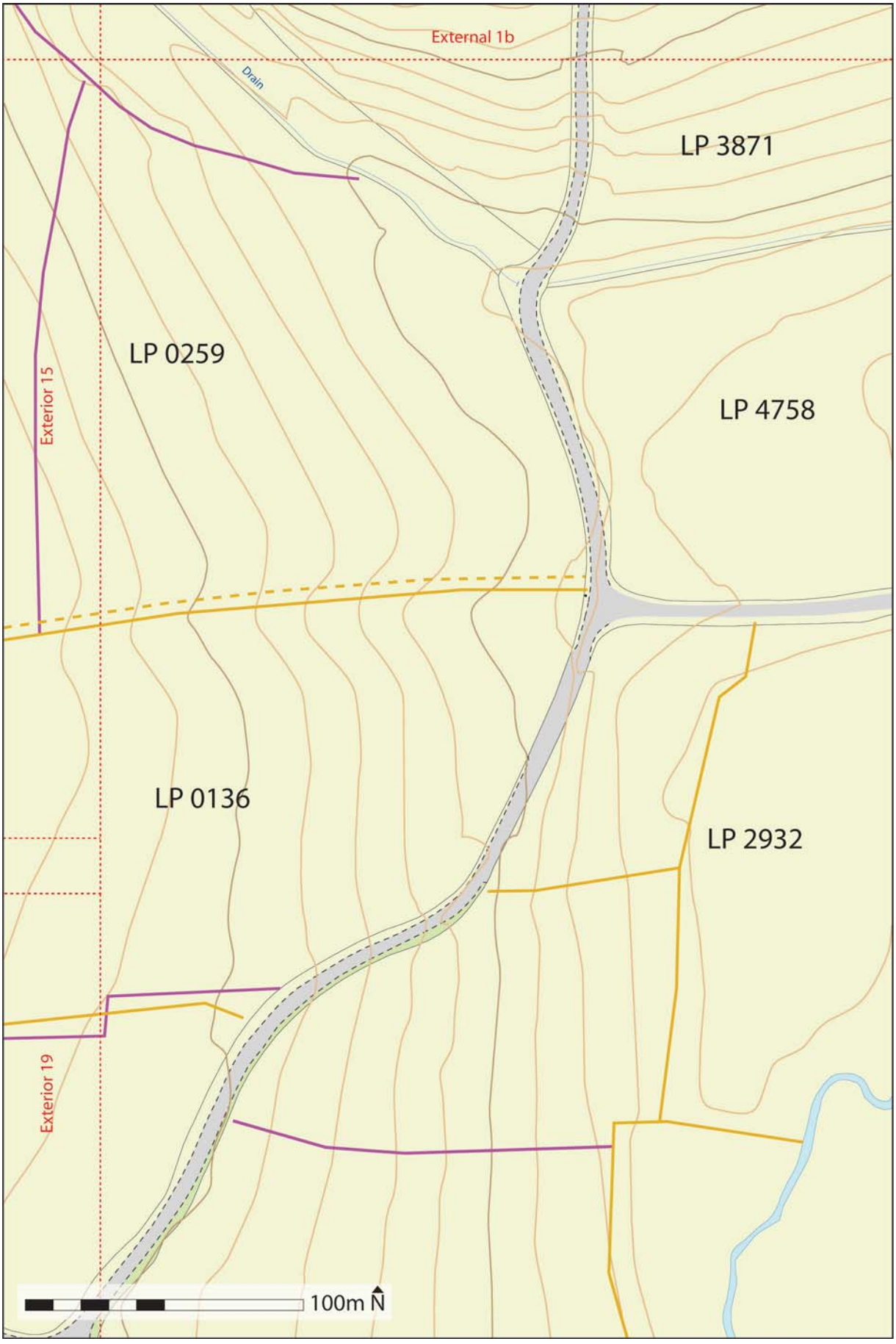

FIG. 6.47. Exterior 16 – excavations, aerial photography and fieldwalking.

FIG. 6.48. Exterior 16 – fluxgate gradiometry (± 2 nT).

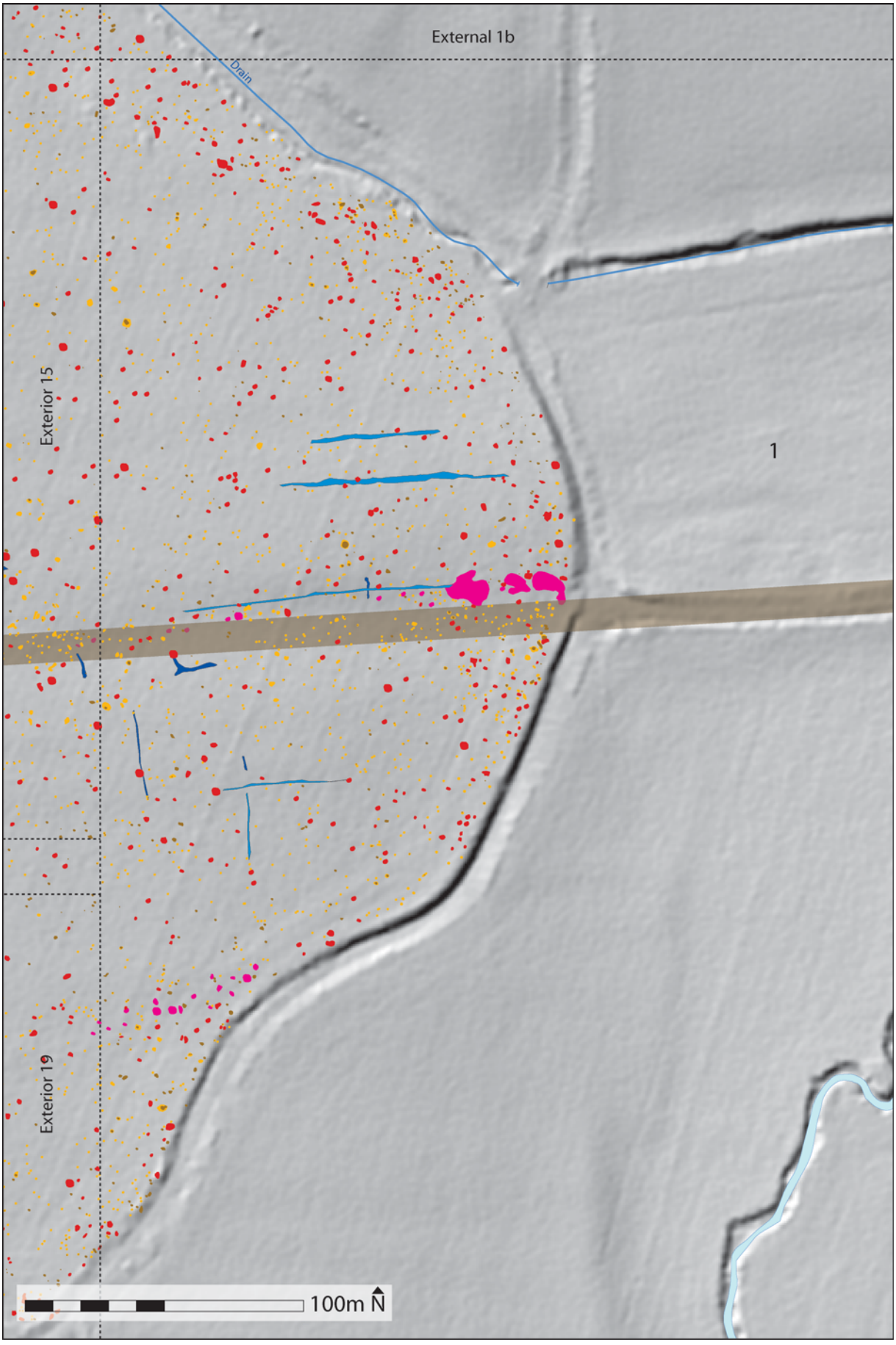

FIG. 6.49. Exterior 16 – geophysics interpretation on top of LiDAR data.

EXTERIOR 17 (FIGS 6.50–52)

FIELDWALKING

LP 2900: Corney walked over 3–5 seasons the area west of the brook, with no significant finds reported; in the same area UoRSP found a small scatter of Roman or medieval CBM and a flake. There was no Roman pottery.
LP 5333 and 6805: Corney walked over 6–10+ seasons, 23 ceramic groups identified. UoRSP re-walked 5333 finding a comparable scatter, though no Iron Age pottery. There were also a few flakes.

OTHER INTERVENTIONS

Town Wall	1896, Antiquaries, Lesser West Gate (St John Hope 1897a, 427).
LP 5333	*c.* 1909, Karslake, unlocated (Karslake 1910).
Town Wall	1909, Antiquaries, various (St John Hope and Stephenson 1910).
Rampier Copse	1939, Site L, 3 locations (Cotton 1947, 138–40).
LP 3540	1956, Boon, Trench Fa (Boon 1969, 19).
Town Wall	1978, Fulford, I (Fulford 1984, 27, 33–4, 58–9, 66).
LP 2900	1988, Fulford, the site of a siliquae hoard (Fulford *et al.* 1989).

KEY FEATURES

Modern features

There was a house at the northern edge of LP 2900 constructed sometime in the late nineteenth century (it is not on the 1870s OS maps). It had gone by the 1960s [1]. The linear disturbance north–south running down the field follows the edge of a former field-boundary and track alongside it [2], so is not related to the almost parallel Roman road to the east [3].

Occupation between the Outer Earthwork and the Town Wall

Karslake investigated here without producing any plans. The scale of his operation sounds comparable to the Antiquaries' excavations within the town, though no sign of multiple parallel trenches can be seen in the geophysics. Here is his description of his finds:

> The space between the outer entrenchment and the wall was occupied, certainly during the latter period of the existence of the city, by native habitations unequally placed and approached by gravel paths … The usual type of hut seems to have been round, about [4.3 m] in diameter, with a central hearth of flints and large tiles. Round or in front of the fire a basin-shaped hole was dug, about [0.6 m] deep and [1 m] in diameter and lined with clay; this was no doubt used to contain the hot ashes and acted as a sort of oven. The houses were constructed of clay and wattling, but except for some post-holes and a line of loose flints nothing now remains … There were, besides round huts, rectangular houses, but little trace is left to form any detail plan of the size. In the case of these houses an angle or corner seems to have been occupied by the fire, the house being built up at this point with flints, no doubt to prevent a conflagration, and in one case distinct traces of a clay and wicker chimney or flue about [1 m] in diameter were found among the debris of the hearth. (Karslake 1910)

What we can tell from Corney's fieldwalking is that there was certainly extensive occupation out to the Inner Earthwork (which had not been discovered in Karslake's time) [4], and a significant cluster outside the entrance where the road to Old Sarum broke through. The date range begins in the Claudio-Neronian period and continues all the way through to the Later Roman period. There is no tail-off when this area got cut off from the rest of the city by the construction of the Town Wall. Corney considered that the gap between the northernmost group here (CN:31, FH:35, etc.) [5] and the cluster to the south (CN:22, FH:37, etc.) [6] may have

FIG. 6.50. Exterior 17 – excavations, aerial photography and fieldwalking.

FIG. 6.51. Exterior 17 – fluxgate gradiometry (± 2 nT).

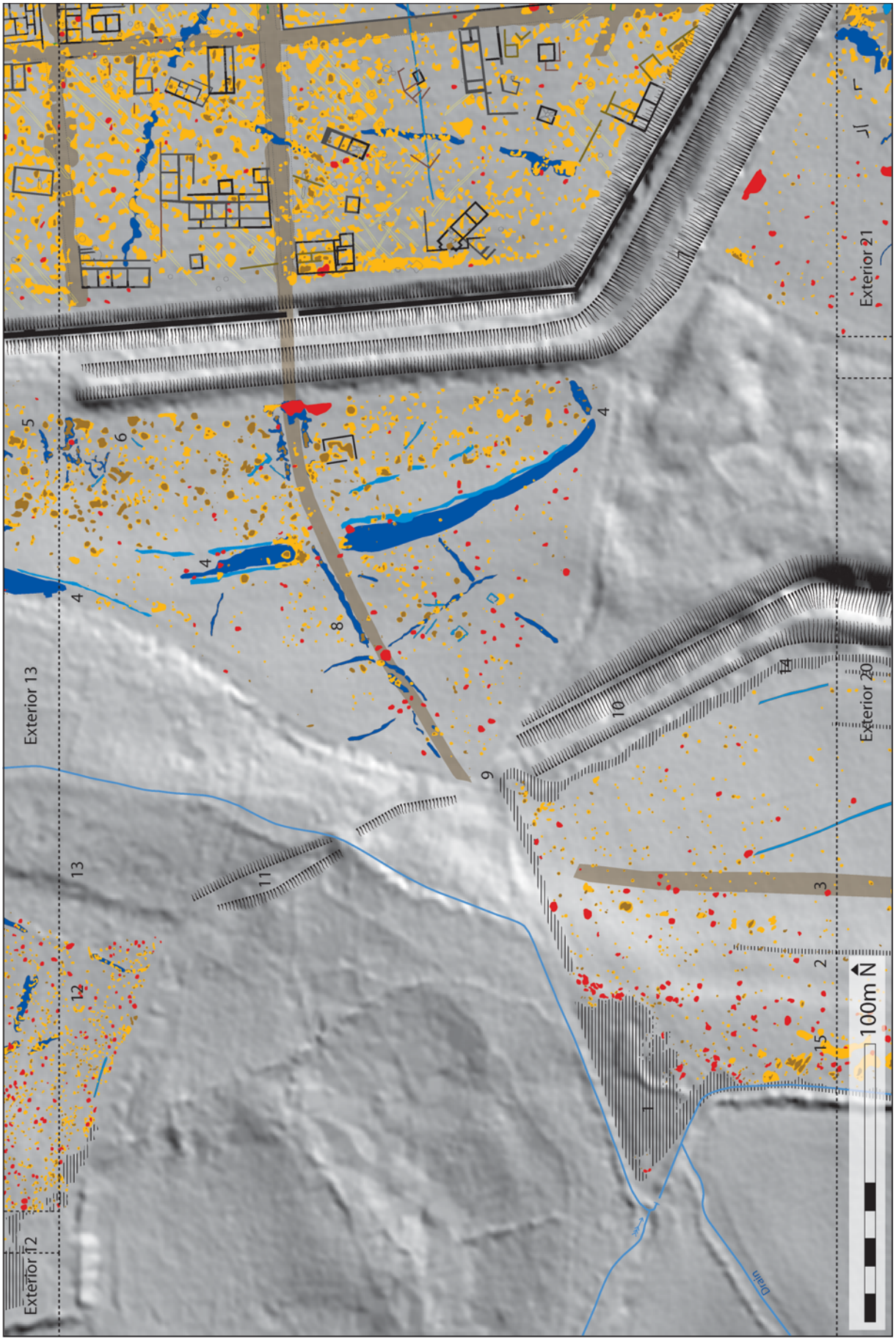

FIG. 6.52. Exterior 17 – geophysics interpretation on top of LiDAR data.

been the continuation of the Roman east–west street out to the Inner Earthwork defences before the Town Wall was built (Corney 1984, 257).

Northern cluster:
- PC:9, Augustan to mid-first century A.D.: 1400 m^2, 1.80 kg.
- CN:21, Claudio-Neronian: 2700 m^2, 5.55 kg.
- FH:35, Flavian-Hadrianic: 2300 m^2, 4.55 kg (incl. 1 bronze coin of Trajan).
- AE3:50, Antonine to early third century: 3900 m^2, 7.90 kg (incl. 2 bronze coins of Antoninus Pius, and several illegible *aes*).
- LR:70, mid-third to late fourth century: 4500 m^2, 11.65 kg (incl. 3 Gallic Empire, 2 Constantinian, 1 Valentinianic) (incl. bronze slag and crucible fragments).

Central cluster:
- CN:22, Claudio-Neronian: 700 m^2, 0.85 kg.
- FH:37, Flavian-Hadrianic: 700 m^2, 0.70 kg (incl. 1 bronze coin of Hadrian).
- AE3:52, Antonine to early third century: 1000 m^2, 0.70 kg.
- LR:72, mid-third to late fourth century: 1350 m^2, 1.15 kg.

Along the road:
- PC:10, Augustan to mid-first century A.D.: 300 m^2, 0.30 kg.
- CN:24, Claudio-Neronian: 800 m^2, 0.55 kg (incl. possible Claudian copy as).
- FH:38, Flavian-Hadrianic: 400 m^2, 0.45 kg.
- AE3:54, Antonine to early third century: 1100 m^2, 1.05 kg (inc. several illegible *aes*).
- LR:74, mid-third to late fourth century: 600 m^2, 0.55 kg.

Southern cluster:
- AE3:55, Antonine to early third century: 400 m^2, 0.70 kg.

Inner Earthwork towards the south

There is no obvious sign of the Inner Earthwork [4] continuing through the copse and entering LP 6805 as Boon and Corney supposed. The geophysics suggest the ditch curves a little more to the east as it heads off into Rampier Copse, and it is probably easiest to assume it is co-terminous with the Town Wall ditch in this stretch [7].

The Old Sarum road between the Inner and Outer Earthworks

There is a strong linear reading parallel to the road just outside its exit through the Inner Earthwork as if there is a metallic pipe or other strongly magnetic feature here [8]. It may relate to the pipe discovered by the Antiquaries linking the Lesser West Gate and Insula III, though as it runs down the slope here, it would not be obvious for a water-supply pipe to the town. The aerial photographic indication of a major central drain or feature within the road going down to the clay-pits [3] (see below), does suggest the possibility that this pipe could have been for the collection and removal from the town of urine for tanning outside the town, though it would be major infrastructure for such a thing if it were the case. It is more likely the response is because some strongly magnetic waste from industrial activity has been dumped in one of the road-side ditches just outside the Inner Earthwork.
Outside the gap in the Inner Earthwork:

- PC:11, mid- to late first century B.C.: 300 m^2, 0.25 kg.
- CN:23, Claudio-Neronian: 600 m^2, 0.65 kg.
- FH:39, Flavian-Hadrianic: 600 m^2, 1.00 kg.
- AE3:53, Antonine to early third century: 1900 m^2, 2.05 kg.
- LR:73, mid-third to late fourth century: 400 m^2, 0.30 kg (incl. radiate of Carausius).

The Old Sarum entrance through the Outer Earthwork

Prior to Karslake it had been assumed the road to Old Sarum entered at either the South Gate (Maclauchlan) or the main West Gate (late nineteenth-century OS maps). Following the

discovery of the Lesser West Gate in 1896 Karslake hypothesised the road came in here and set out to investigate. He excavated at an unspecified date without producing a plan, but presumably where the road went through the Outer Earthwork [9]. He described his excavation thus:

> The western entrance to the outer work was at the site of the field gate to the north end of Rampiers. It was protected by a crescent-shaped outwork. The original roadway passed round this outwork and ascended by a fairly steep slope over the inner embankment … This road was 10 feet broad, formed of a mixture of red gravel-stones and clay. It was later buried under the Roman road which left from the south-west gate. This road is 30 feet broad, and to accommodate it the inner and outer earthwork had been levelled down to form an even grade by which the road descended to the lower ground, showing clearly that at the date of the construction of the Roman road no importance was attached to the outer entrenchment as a defensive work. (Karslake 1910)

As usual, his remarks are difficult to interpret, and the LiDAR data offer no clue as to the crescent-shaped work protecting the entrance. It is finally worth noting that it is very difficult to see any trace of the Old Sarum road within the copse heading west-south-west, though its projected line would certainly suggest it joined up with the remains much further out to the west which can amply be seen in the LiDAR.

The Outer Earthwork

The course of the Outer Earthwork has caused much debate. Its remains are clear within Rampier Copse [10], but then become less pronounced to the north [11]. Boon envisaged it continuing further north in a straight line to join the North-West Annex enclosure, and an aerial photograph seemed to hint at this [12], even though the results in Trench Fa were far from conclusive that there was a ditch there at all. Unfortunately the geophysics in LP 3540 and LiDAR do not give any supporting evidence for this hypothesised route of what should be a major feature (see discussion in Exterior 13). Instead it looks as if it turns to head north and there is a possible hint of it in the LiDAR results, which would make it join up neatly with the Sandy's Lands earthwork [13].

Gold and silver Late Roman hoard

An unpublished fieldwalking and metal-detecting survey took place when LP 2900 east of the brook was ploughed for the first time in a long while in 1985 [14]. Between 1985 and 1987, 51 siliquae, many significantly clipped suggesting an early fifth-century deposit, were found along with several other coins and seven whole or broken rings. These almost certainly comprised a hoard (though the coroner did not agree). Excavation in 1988 of a 6 x 4 m trench focused upon the main area of the finds revealed little except for a few abraded sherds of first- and second-century date in the plough soil, and a post-hole 0.4 m in diameter about 3 m south of the fence-line. (Full report: Fulford *et al.* 1989; interim statements Fulford *et al.* 1987 and Frere *et al.* 1988, 477.)

Road through LP 2900

The aerial photography shows a road turning down to the south and descending down the slope of LP 2900 [3]. This goes down to the brook but thereafter is hard to track.

Clay-pits

Down by the brook there are a number of large pits, 5–8 m in diameter. These continue south into Exterior 20. They are cut into clay and may represent clay-pits for brick or pottery making, or perhaps pits for tanning [15].

EXTERIOR 18 (FIGS 6.53–55)

FIELDWALKING

LP 3000, 4426 and 6530: Corney walked over 6–10+ seasons, 3 ceramic groups identified. Within LP 3000 UoRSP found CBM over the upper parts of the slope to the west complemented by a scatter of Roman pottery. Within LP 4426 UoRSP found Roman/medieval CBM and Roman pottery concentrating in the northern part of the field. There were also two small clusters of medieval sherds in the middle and towards the south of the field. The field also produced multiple flakes and a core/axe fragment. Within LP 6530 UoRSP found more medieval than Roman pottery across the field, and two quern fragments but no CBM.
LP 5800 and 6346: Corney walked over 3–5 seasons, with no significant finds reported; however, within LP 5800 UoRSP found 2 Roman and 2 medieval sherds and a couple of fragments of CBM; and within LP 6346 UoRSP found two struck flakes, a scatter of Roman and medieval pottery and Roman/medieval CBM.

OTHER INTERVENTIONS

LP 4426	1978, Fulford, Trench 6 (Fulford 1984, 26, 82).
LP 6346	1978, Fulford, Trenches 3 and 4 (Fulford 1984, 26, 82).
Beeches copse	1912, Karslake supposed entrance (Karslake 1914).
St Mary's Lee	2012, TVAS evaluation and watching-brief (Porter 2012; 2013).

KEY FEATURES

Modern features

A twentieth-century agricultural building was in the corner of LP 4426 on the OS 1969 1:2500 map, though it is no longer present [1].

Park Pale

The medieval Park Pale survives further to the south and can be seen clearly continuing north in the LiDAR data through the Beeches copse. It presumably continues north as the division between LP 2226 and 6530 [2].

Cemetery area

The most notable feature in the geophysics is a large area of pitting [3] which seems to have an aligned rhythmic pattern to it. It is highly likely that this is an inhumation cemetery, and the rhythmic nature comes from alignment of the burials as seen in numerous excavated examples. The cluster appears to have a clear edge, though there is no linear feature observed demarking the boundary. However, it is curious that it more or less respects a projection of an east–west street within the town [4], as if this street once demarcated the southern edge of the cemetery before it was cut off by the construction of the Town Wall.

There is, however, a mismatch between the distribution of the ceramics from the field and the location of the cemetery. Most of the ceramics are slightly to the north, with less coming from the area of the possible inhumations; indeed LP 6530 was virtually sterile in Corney's survey (though it produced medieval ceramics in the UoRSP survey). It could be that the ceramics in the north corner of LP 4426 come from an area of cremations.

- FH:44, Flavian-Hadrianic: 1600 m^2, 2.40 kg (incl. 2 bronze coins of Trajan).
- AE3:62, Antonine to early third century: 2700 m^2, 3.40 kg (shows an increase in activity in terms of the amount of material recovered).
- LR:84, mid-third to late fourth century: 5100 m^2, 11.10 kg (corresponds with the full extent of a flint and tile scatter).

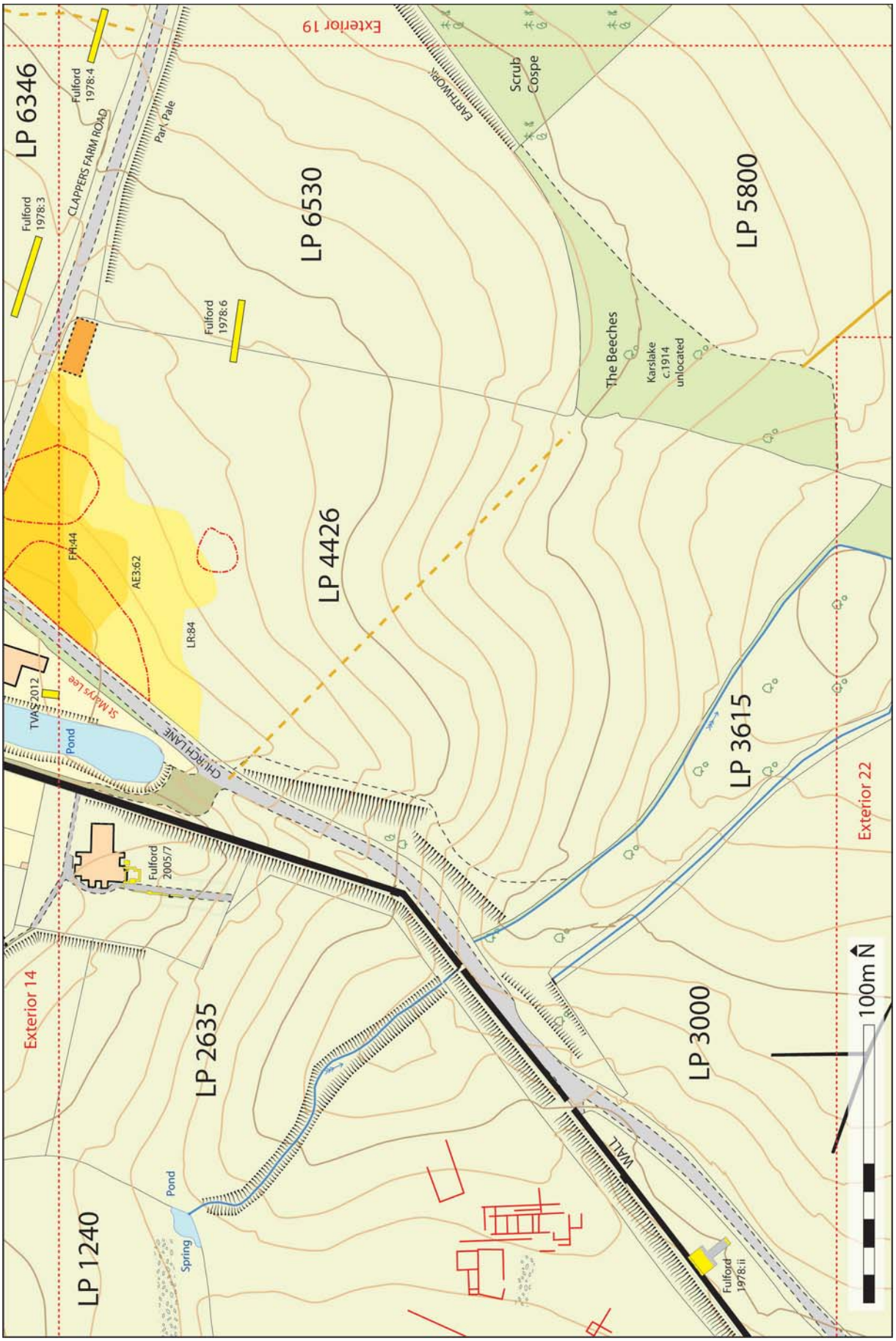

FIG. 6.53. Exterior 18 – excavations, aerial photography and fieldwalking.

FIG. 6.54. Exterior 18 – fluxgate gradiometry (± 2 nT).

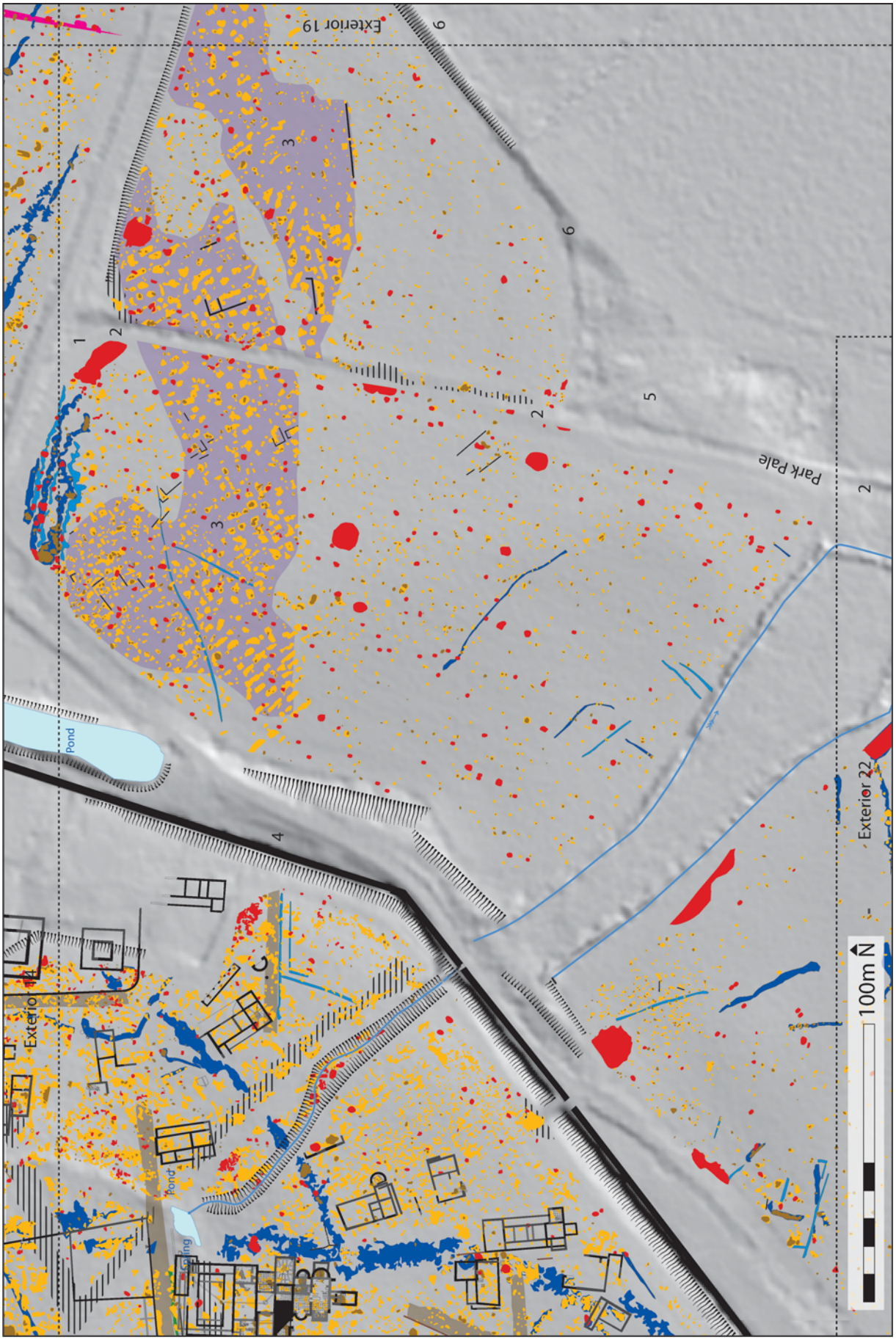

FIG. 6.55. Exterior 18 – geophysics interpretation on top of LiDAR data.

The Outer Defences

The multiple excavations attempting to track various hypothesised routes of defences south-east of the town are discussed in the section on Mapping the Earthworks. Suffice it to say there is nothing in the LiDAR data or geophysics which helps make sense of Karslake's excavation of an entrance-way in the Beeches copse [5], nor of the road he envisaged heading from the town to the south-east (Karslake 1920).

The earthwork along the field-boundary of LP 6530 and 5800 is potentially an extension of a bank and ditch further to the south in Exterior 22 [6].

EXTERIOR 19 (FIGS 6.56–58)

FIELDWALKING

LP 6530: Corney walked over 6–10+ seasons, with no significant finds reported. Within it UoRSP found a flake, a scatter of Roman sherds, and a concentration of medieval sherds mainly in the north-west part of the field on this sheet [1], including a quern fragment; but no CBM.
LP 0136, 5800, 6346, 7500 and 9819: Corney walked over 3–5 seasons, 2 groups identified. Within LP 0136, UoRSP found very little in the area on this sheet, perhaps a sherd of Roman pottery. Within LP 5800, UoRSP found 2 sherds of Roman and 2 of medieval pottery and 2 unidentified brick fragments. Within LP 6346, UoRSP found a flake, some Roman pottery by the modern roadside (around Fulford's Trench 5), and a few sherds of medieval pottery, mainly towards the western part of the field on this sheet; Roman/medieval CBM spread further east down the field. Within LP 9819, UoRSP found a flake.

OTHER INTERVENTIONS

LP 6346	1978, Fulford, Trenches 4 and 5 (Fulford 1984, 26, 82).
LP 6530	1978, Fulford, Trench 7 (Fulford 1984, 26, 82).

KEY FEATURES

The number of features in both fieldwalking and geophysics diminishes significantly down the hill. The most notable feature here is the continuation of the possible inhumation area [2] across from LP 6530 to the other side of the modern road into LP 6346 (see discussion in Exterior 18). The remains of the medieval Park Pale run down on the southern side of the modern road [3].

The cluster of material in LP 6346, groups AE3:61 and LR:82, is discussed under Exterior 15. The multiple excavations attempting to track various hypothesised routes of defences south-east of the town are discussed in the section on Mapping the Earthworks.

An isolated Gallo-Belgic E coin was found within LP 7500 around SU 647620, just to the south of this sheet (Boon in Fulford and Timby 2000, 163).

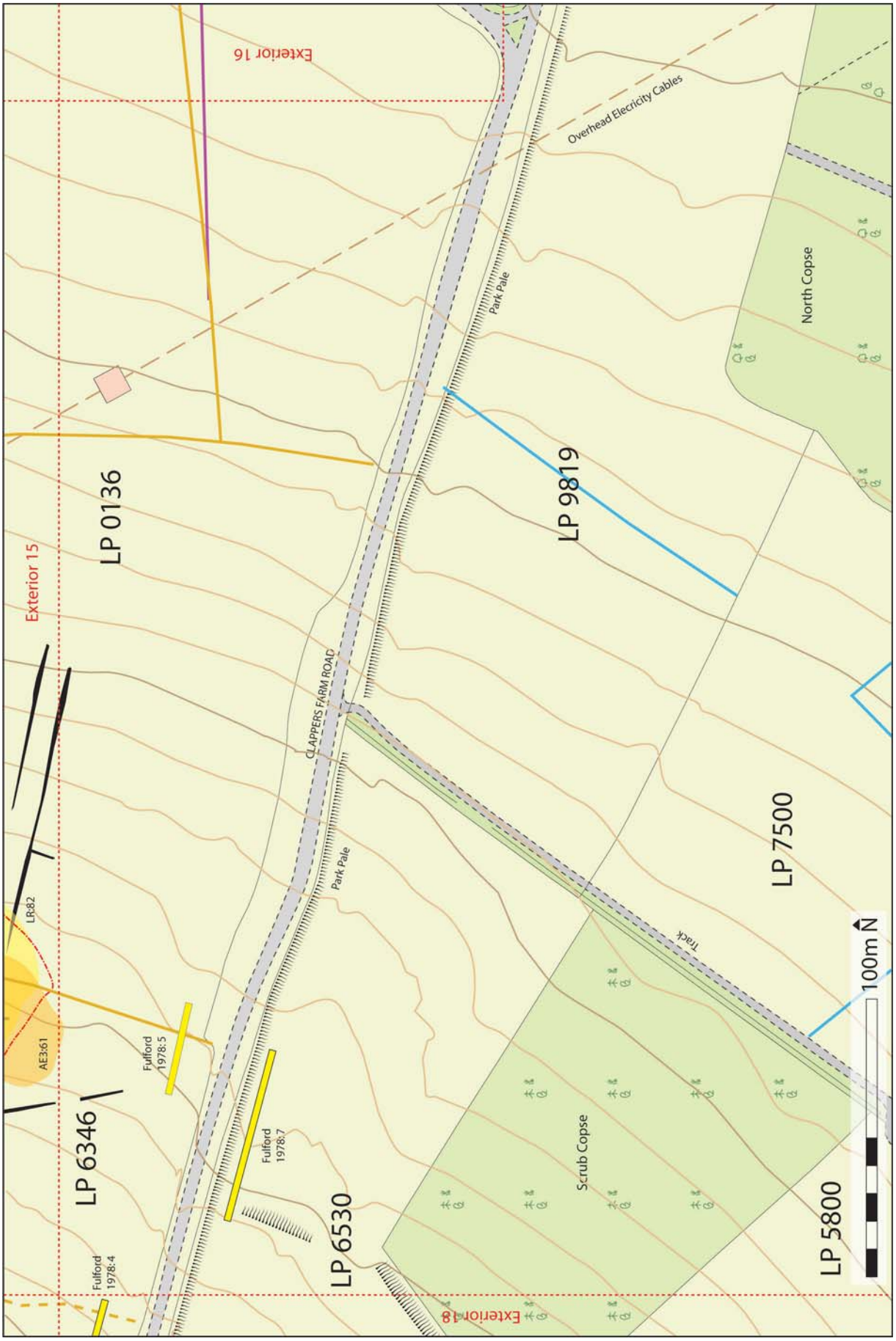

FIG. 6.56. Exterior 19 – excavations, aerial photography and fieldwalking.

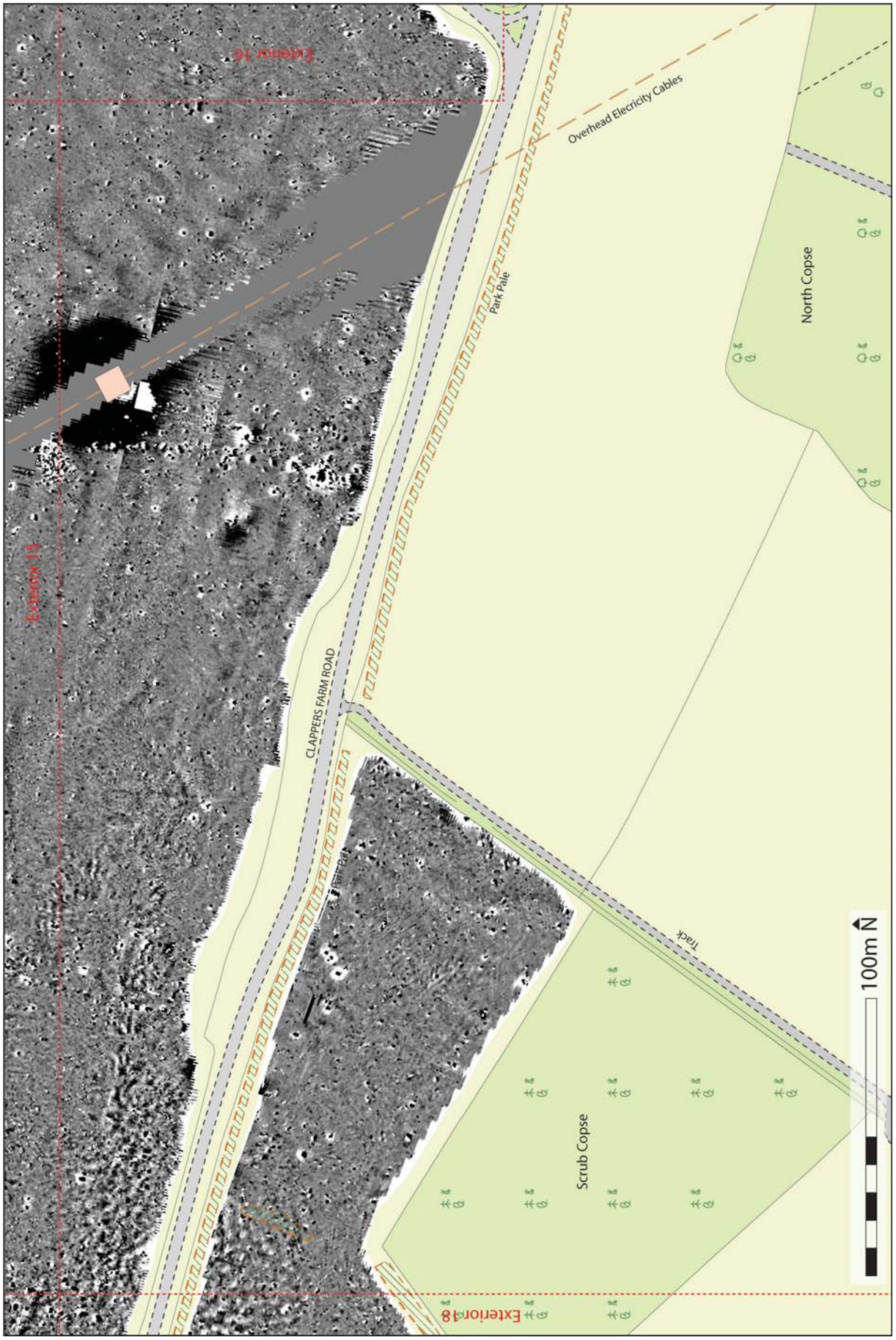

FIG. 6.57. Exterior 19 – fluxgate gradiometry (± 2 nT).

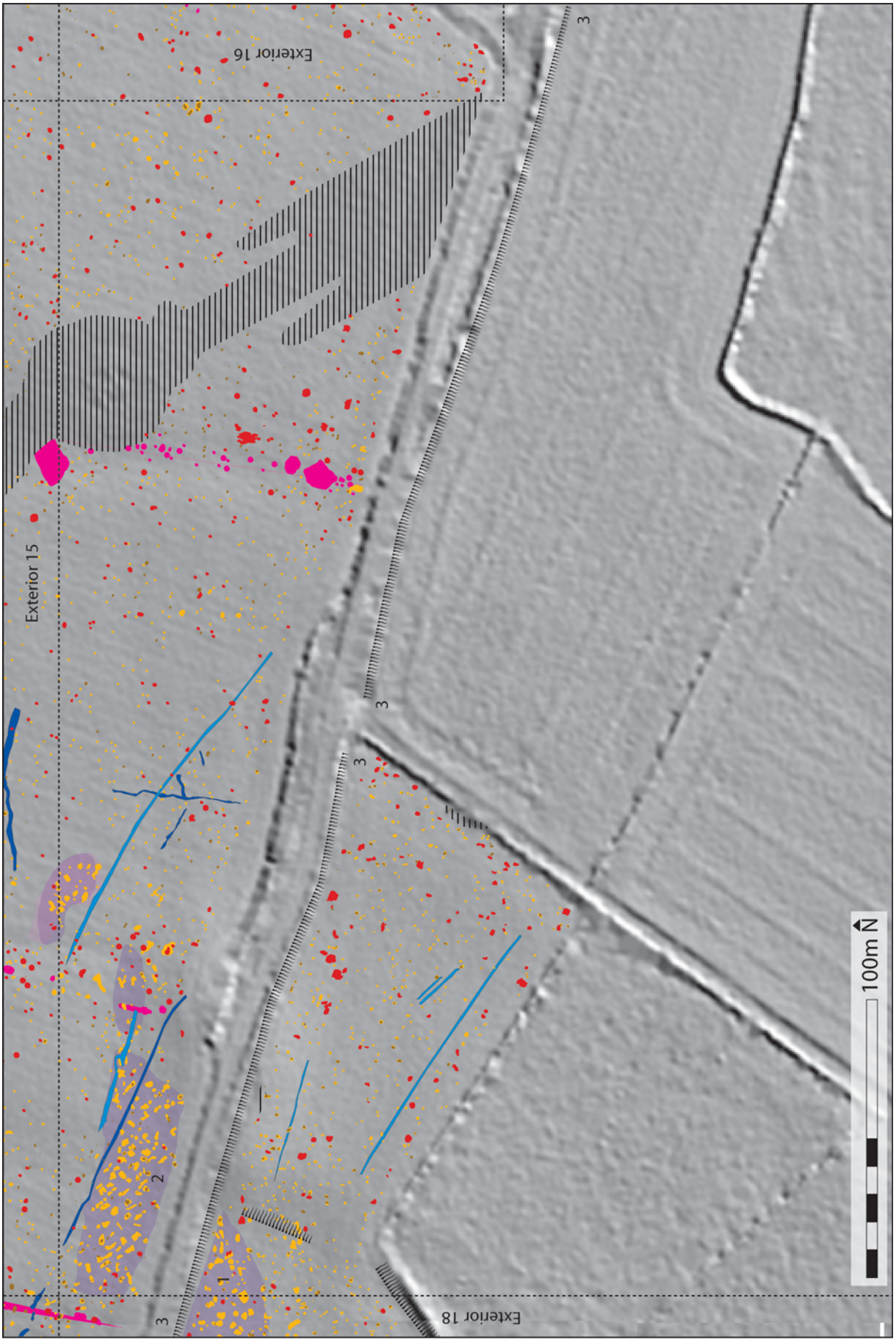

FIG. 6.58. Exterior 19 – geophysics interpretation on top of LiDAR data.

EXTERIOR 20 (FIGS 6.59–61)

FIELDWALKING

LP 2177: UoRSP found a few fragments of Roman/medieval tile and 2 medieval sherds.
LP 2900: Corney walked west of the brook over 3–5 seasons, with no significant finds reported. UoRSP found a small cluster of Roman/medieval tile west of the brook around and just to the south of the Roman Portway road-line.
LP 3573: UoRSP found 3 Roman and 4 medieval sherds and a fragment of CBM. The Roman sherds were by the brook.
LP 6805: Corney walked over 6–10+ seasons, with no significant finds reported.

OTHER INTERVENTIONS

Rampier Copse 1909, Challenor Smith, defences (St John Hope and Stephenson 1910).
Rampier Copse 1939, Site L, 3 locations (Cotton 1947, 138–40).

KEY FEATURES

A road comes down the hill from the Lesser West Gate to the brook in the valley, down at the bottom of which its course becomes less clear and it cannot be projected [1], though it is possible that it heads for the gap under the trees of the Dicker's Dyke linear earthwork [2].

Down in the valley bottom there are a large number of pits which appear to have been cut into the clay, 3–8 m diameter [3]. These may be for pottery or CBM production, though no signs of wasters came from the fieldwalking, and no magnetic signatures suggestive of kilns were produced. It could be that they were tanning-pits given the local supply of water (discussed p. 416). They continue along the full length of the brook in the area investigated.

The small part of Rampier Copse enclosure shown in this area reveals no features from the LiDAR [4] (see discussion in Exterior 21).

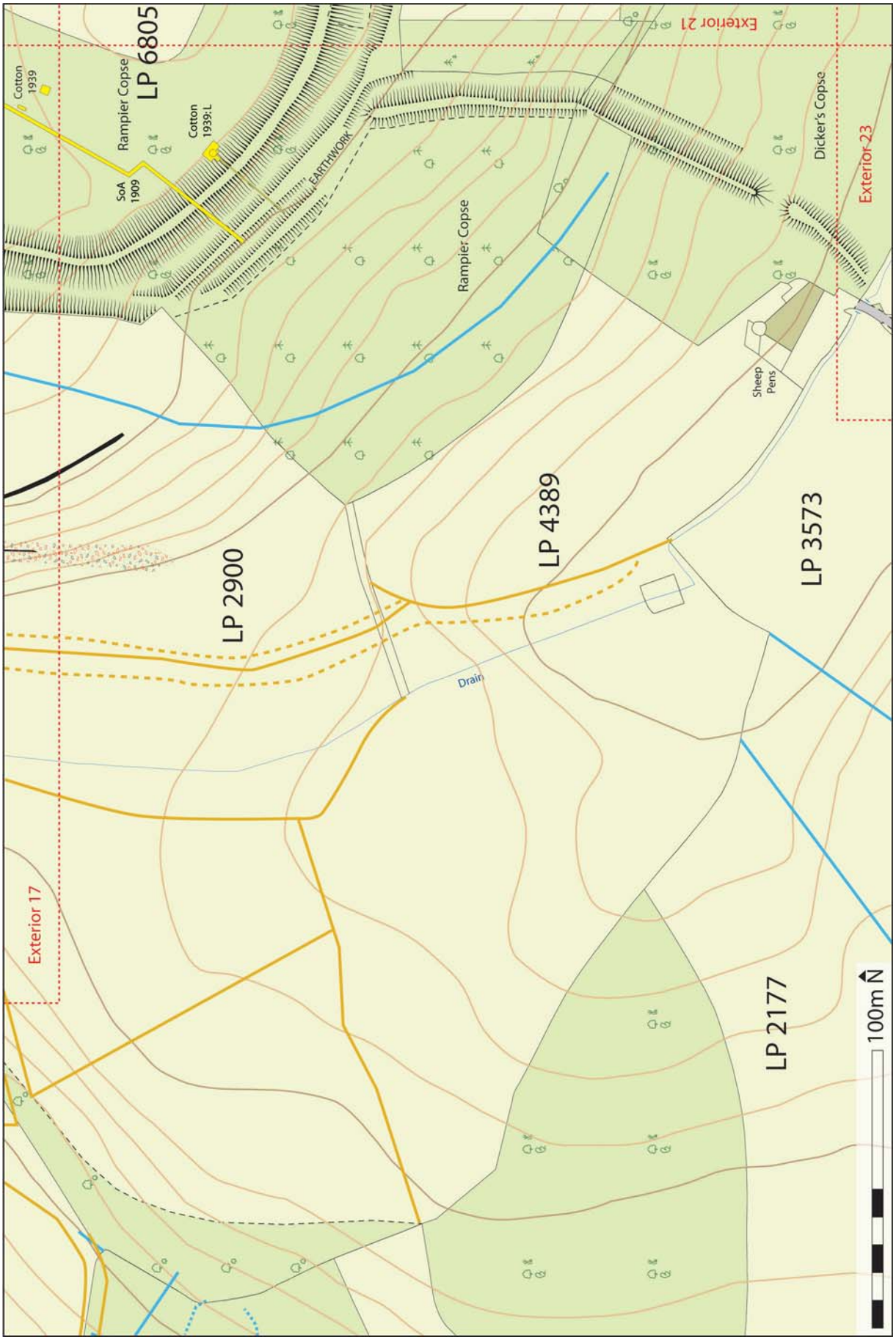

FIG. 6.59. Exterior 20 – excavations, aerial photography and fieldwalking.

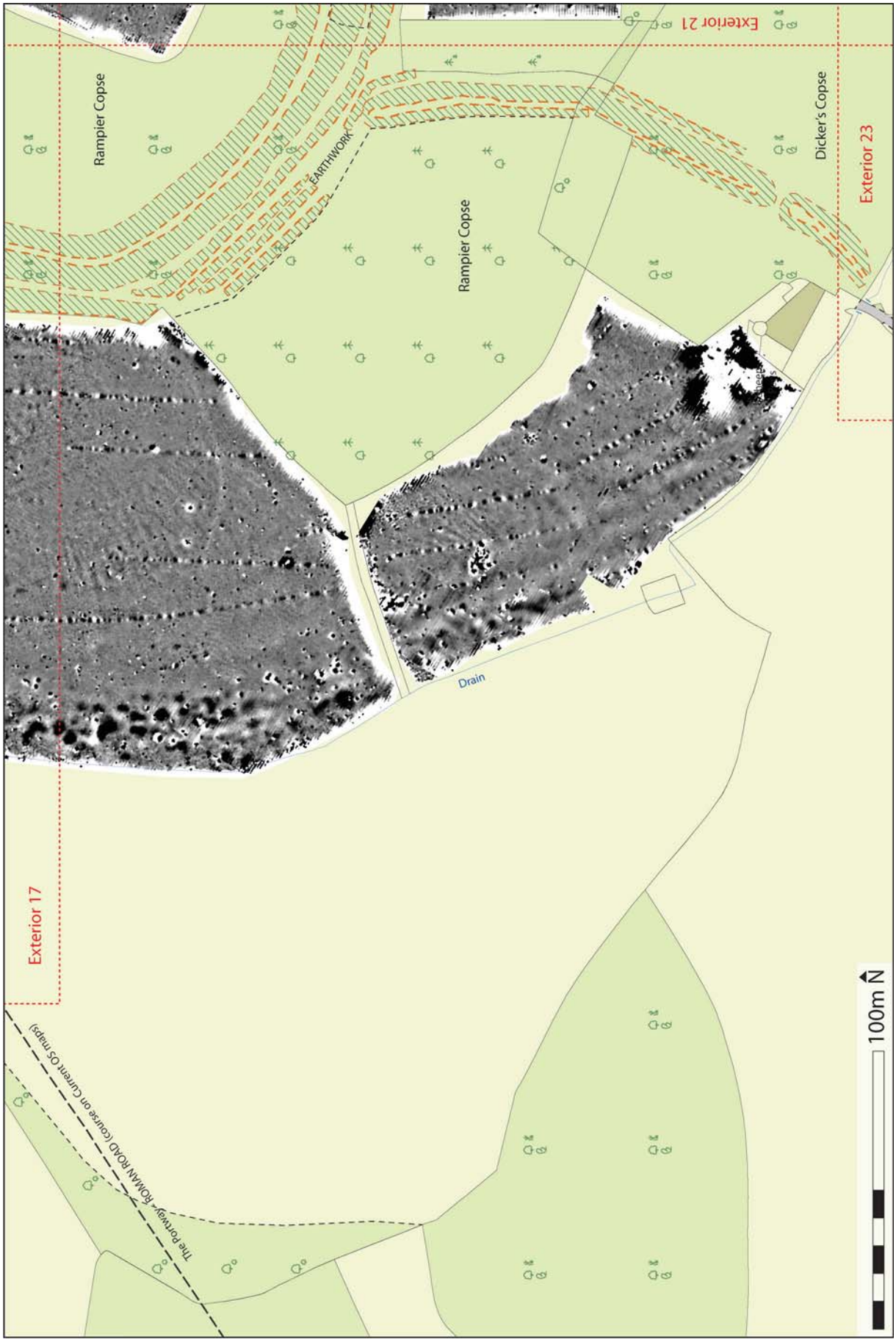

FIG. 6.60. Exterior 20 – fluxgate gradiometry (± 2 nT).

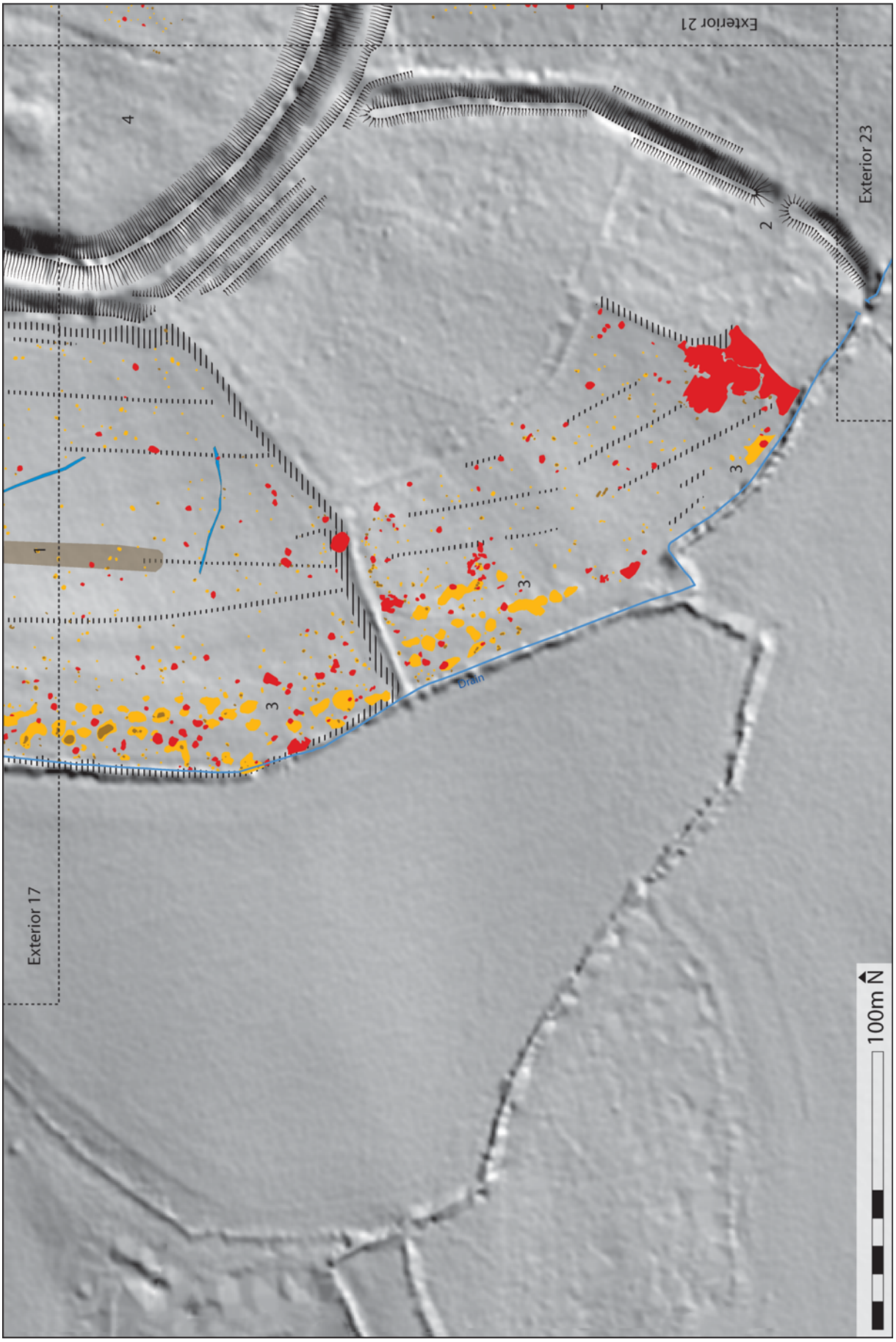

FIG. 6.61. Exterior 20 – geophysics interpretation on top of LiDAR data.

EXTERIOR 21 (FIGS 6.62–64)

FIELDWALKING

LP 0001, 0068, 1100, 6805 and 6991: Corney walked over 6–10+ season, 29 groups identified.
LP 0068: UoRSP found a similar cluster to Corney of Roman pottery in the north-west corner of the field, with a quern fragment and a medieval sherd. There were also 14 flakes and a core fragment recognised.
LP 1100: UoRSP found a scatter of Roman pottery with a slightly denser concentration in the western part of the field. There was a concentration of Roman/medieval brick and tile, particularly in the western corner.

OTHER INTERVENTIONS

LP 0001	1909, Antiquaries, South Gate (St John Hope and Stephenson 1910).
Rampier Copse	1909, Challenor Smith, defences (St John Hope and Stephenson 1910).
Rampier Copse	1939, Site L, 3 locations (Cotton 1947, 138–40).
LP 0001	1957, Boon, Trenches H and J (Boon 1969, 10–14).
Town Wall	1968, Collis, Trench i (Collis 1983).
Town Wall	1974–5, Fulford (Fulford 1984, 30-2, 37, 62–3, 67–8, 75–6).
LP 6805	1978, Fulford, Trench 11 (Fulford 1984, 26).

KEY FEATURES

The South Gate and road to Winchester

The road exits south but then detours rather than continuing in a straight line. Either side of it and within the presumed line of the Inner Earthwork is a range of ceramics from the Iron Age through to the Later Roman period, with a little more pre-Claudian material further south. Corney noted that the distribution of the CBM and the Antonine to third-century ceramics was similar (Corney 1984, 263).

- PC:1, Augustan to mid-first century A.D.: 1300 m^2, 3.05 kg.
- PC:2, Augustan to mid-first century A.D.: 800 m^2, 1.02 kg.
- PC:3, mid- to late first century B.C.: 200 m^2, 0.65 kg.
- PC:4, Augustan to mid-first century A.D.: 250 m^2, 0.45 kg.
- CN:14, Claudio-Neronian: 3300 m^2, 5.90 kg (incl. as of Nero, Hod Hill fibula).
- CN:15, Claudio-Neronian: 1300 m^2, 2.60 kg.
- FH:28, Flavian-Hadrianic: 2600 m^2, 4.20 kg (incl. 1 bronze coin of Domitian).
- FH:29, Flavian-Hadrianic: 1600 m^2, 1.20 kg.
- AE3:46, Antonine to early third century: 1400 m^2, 2.45 kg.
- AE3:47, Antonine to early third century: 700 m^2, 1.15 kg.
- LR:64, mid-third to late fourth century: 600 m^2, 1.35 kg.
- LR:65, mid-third to late fourth century: 150 m^2, 0.20 kg.

The road to the south-west

The road out of the South Gate bifurcates just after the line of the supposed Inner Earthwork. While the eastern branch heads off to Winchester, the western branch can be seen heading to the south-west in the ultimate direction of Old Sarum [1]. This is where Maclauchlan and others originally thought the road from Old Sarum entered the town until the Lesser West Gate was discovered. The road crosses a marshy area between LP 0001 and 6991, before linears marking either side of the road continue again on the other side in the geophysics. It can also be seen clearly as a parchmark in aerial photographs within LP 6991 (*c.* 1972, NMR SU6362/54-5). However, there is no trace of it as earthworks within Dicker's Copse in the LiDAR, though it might just show on the other side in LP 5673 in Exterior 23 (see discussion on roads p. 401).

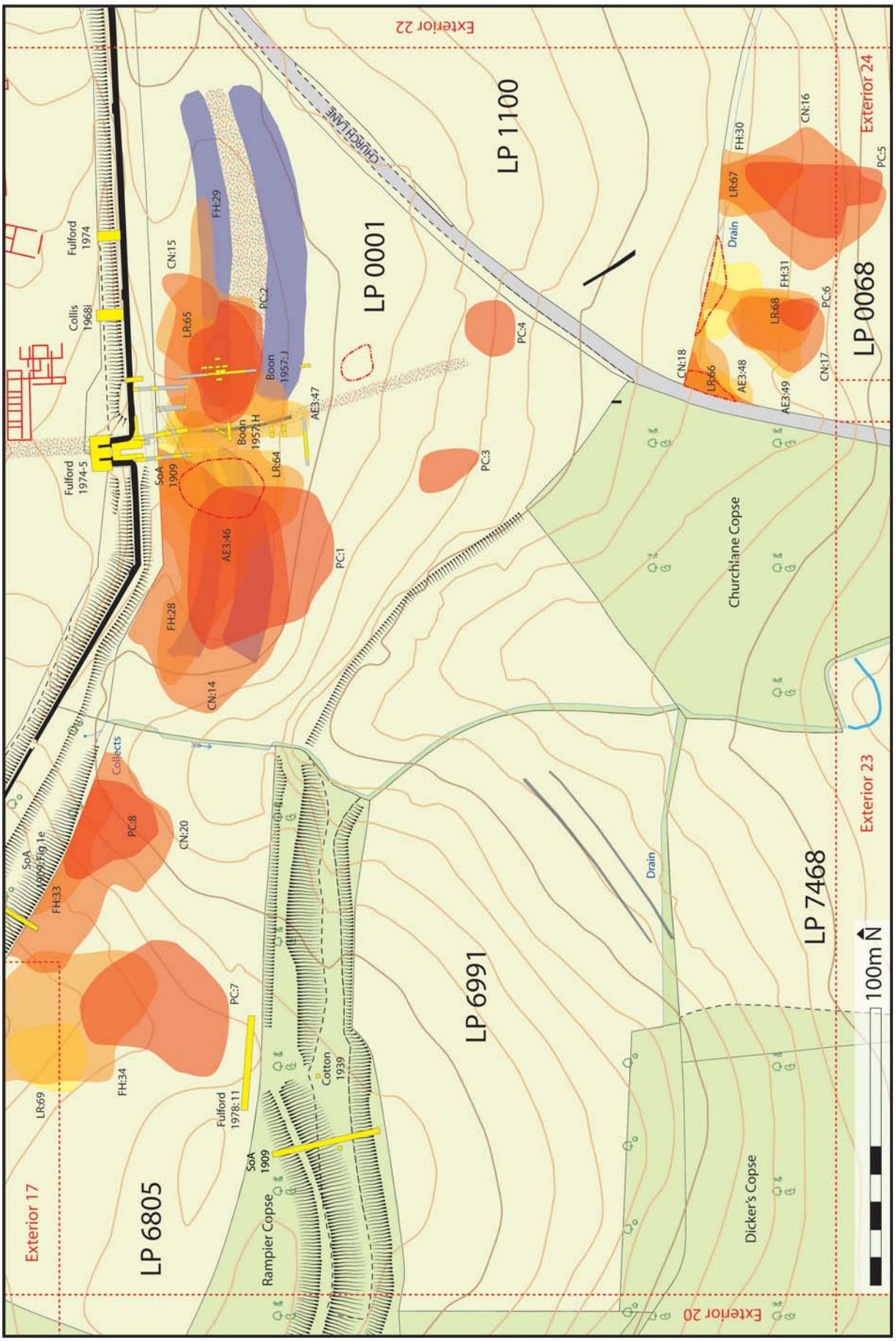

FIG. 6.62. Exterior 21 – excavations, aerial photography and fieldwalking.

FIG. 6.63. Exterior 21 – fluxgate gradiometry (± 2 nT).

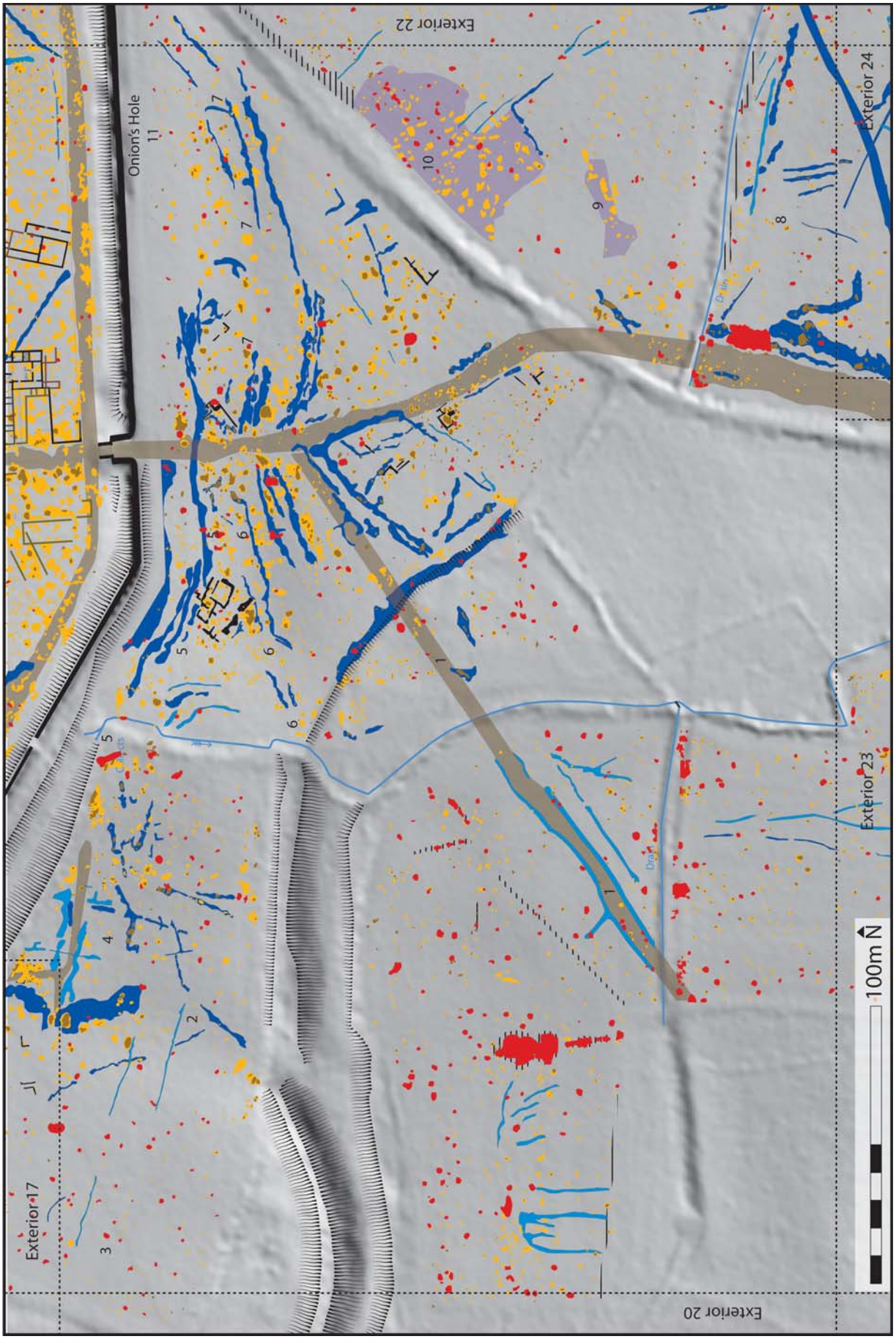

FIG. 6.64. Exterior 21 – geophysics interpretation on top of LiDAR data.

Rampier Copse enclosure

The existence of this enclosure, indicated by Colt Hoare (FIG. 3.4), is suggested despite Fulford Trench 11's failure to find the bank and ditch, on the basis of the interior being relatively free of anomalies in comparison to the area to the immediate east and infra-red photographs in the NMR suggesting a ridge or bank existed, which is confirmed by a slight elevation in the LiDAR data [2]. The interior appears to have been kept deliberately clear of negative features [3]. Most of the fluxgate gradiometry readings suggest fragments of metal rather than pits or gullies. The only excavations within the enclosure have been by Cotton in 1939. Two trenches were laid out in the copse rather than the pasture as part of her Site L. Her section into the tail of the bank (shown in Exterior 20) revealed it sealed earlier deposits, including a hearth and pit. The finds therein included some tile, hand-made native ware and a rim of a butt-beaker (Cotton 1947, 138–40).

In the north-west corner of LP 6805 there is a lot of 'noise' which correlates well with Corney's ceramic scatters from the pre-Claudian period onwards [4]. There is relatively little later Roman material, suggesting the area largely fell into abeyance once the Town Rampart and Wall were built. Most of this material only came to light in the last two seasons of the eight years of walking since the ploughman had increased the depth of cultivation (Corney 1984, 245).

- PC:7, mid- to late first century B.C.: 1900 m^2, 2.45 kg, (the largest early group from Corney's walking, Gallo-Belgic wares emphasising its early date. Included within the assemblage were 2 coin-mould flan fragments).
- PC:8, Augustan to mid-first century A.D.: 700 m^2, 1.10 kg.
- CN:20, Claudio-Neronian: 2100 m^2, 2.60 kg.
- FH:33, Flavian-Hadrianic: 550 m^2, 0.90 kg.
- FH:34, Flavian-Hadrianic: 1900 m^2, 3.30 kg.
- LR:69, Mid-third to late fourth century: 500 m^2, 0.75 kg.

The route of the Inner Earthwork

Earlier hypotheses imagined the Inner Earthwork coming through the middle of the pasture encircled by Rampier Copse, but there is no evidence for that from the LiDAR or fluxgate gradiometry. The RCHME aerial photographic plot showed two parallel ditches outside the South Gate, but south of the expected Wall Ditch, and these are similarly ambiguous in the fluxgate gradiometry. It could be that the northern ditch curved to where the Wall Ditch may have subsequently obliterated it [5], and the southern ditch curved to join the Outer Earthwork [6]. A small sample area of resistivity did not assist greatly, although it did confirm the hardstanding between the two banks on the east of the Winchester road [7]; this gave a similar reading to that of the road, so was far more solid than just a bank would be expected to appear. See also discussion under 'Mapping the Earthworks'.

A possible cemetery

Cemeteries outside a main gate are to be expected. The only unequivocal evidence comes from calcined bone found on the land surface after ploughing in the same area as a pre-Claudian ceramic scatter [8]. Corney thought this spread of material and potential cemetery grew and then contracted in the Flavian-Hadrianic period (represented by scatters PC:5, CN:16, FH:30 and LR:67). On one occasion a relatively clear burial was ploughed up just to the south (CN:19, see Exterior 24): 'This consisted of a spread of cremated bone and dark soil, 1 m by 50 cm, surrounded by pottery, including a samian Ritterling 12, 0.15 kg of "Silchester Ware", 0.60 kg of other coarse wares, including two-thirds of the rim of a cordoned bowl' (Corney 1984, 257). As well as these early cremations, an isolated Gallo-Belgic E was found in this field (Boon in Fulford and Timby 2000, 163).

- PC:5, Augustan to mid-first century A.D. : 850 m^2, 0.35 kg, 'may represent part of a cemetery as calcined bone is often seen on the surface after ploughing, mixed with darker soil and pottery' (Corney 1984, 253).

- PC:6, Augustan to mid-first century A.D.: 150 m^2, 0.20 kg.
- CN:16, Claudio-Neronian: 1750 m^2, 3.00 kg.
- CN:17, Claudio-Neronian: 800 m^2, 0.70 kg.
- CN:18, Claudio-Neronian: 500 m^2, 0.25 kg.
- FH:30, Flavian-Hadrianic: 600 m^2, 0.90 kg.
- FH:31, Flavian-Hadrianic: 550 m^2, 0.65 kg.
- FH:32, Flavian-Hadrianic: 400 m^2, 0.85 kg.
- AE3:48, Antonine to early third century: 350 m^2, 0.50 kg.
- AE3:49, Antonine to early third century: 500 m^2, 0.85 kg.
- LR:66, mid-third to late fourth century: 100 m^2, 0.15 kg.
- LR:67, mid-third to late fourth century: 400 m^2, 0.55 kg.
- LR:68, mid-third to late fourth century: 700 m^2, 1.30 kg.

The presence of pottery close enough to the surface to be caught by the plough and of calcined bone is all suggestive of cremations, but there is also an area just to the north in LP 1100 [9–10] which is a possible inhumation area, giving similar fluxgate gradiometry responses to the larger more certain inhumation cemetery outside the East Gate along the road to London. LP 1100 did not produce any significant finds of pottery, which was also sparse over the London road cemetery. However, what little pottery was found in the UoRSP survey was to the west of the field, near the possible inhumation signals.

Onion's Hole

Finally, out of antiquarian interest, Onion's Hole is a long since toppled or slumped section of the Town Wall. On Stair's and Taylor's early maps this is marked here (FIG. 3.3), although some later maps appear to have confused it with the location of the South-East Gate (or Sluice Gate). Much legend was attracted to explain the breach in the Wall, though the early descriptions of it as a small hole under the Wall, or as a private gate probably aided the confusion. It was associated with a Giant called Onion, and pennies from Silchester were spoken of as 'Onion's pennies' (Ward 1748, 607; Mann 1891).

EXTERIOR 22 (FIGS 6.65–67)

FIELDWALKING

LP 0001, 1100, 1971 and 3000: Corney walked over 6–10+ seasons, 3 groups identified. Within LP 1100, UoRSP found a light scatter of Roman pottery and Roman/medieval tile across the field. Within LP 1971, UoRSP found Roman sherds along the northern field edge, along with a quern fragment. Within LP 3000, UoRSP found a scatter of pottery across the field, especially on the upper slopes, with a slight concentration in the middle where the cropmark shows itself. This was complemented by a significant tile scatter on the higher slopes.
LP 4600 and 5800: Corney walked over 3–5 seasons, with no significant finds reported. Within LP 4600, UoRSP found a flake and core and some fragments of CBM; 2 Saxon sherds were also found towards the southern part of the field. Within LP 5800, UoRSP found nothing in this part of the field.

OTHER INTERVENTIONS

LP 1100 1978, Fulford, Trenches 8 and 9 (Fulford 1984, 26, 82).

KEY FEATURES

The South-East Enclosure

The main geophysical linear feature seen crossing LP 1100 and 3000 [1] is the ditch of what is called the South-East Enclosure; this is discussed above in the 'Mapping the Earthworks' section. The feature can also be seen faintly in the LiDAR (though not with the geophysical interpretation superimposed), and within LP 1100 it formed a field-boundary up until recently.

Rectangular building complex

A significant building complex has long been known in Watershoots field (LP 3000). Aerial photography pointed out a 37 x 8 m structure, divided into cells, with traces of perpendicular walls running off it [2]. The geophysics suggest that this might be part of a much larger rectangular courtyard *c.* 37 x 70 m to the north-west [3]. However, it is curious that the pottery and CBM distributions spread south and east.

Here it is important to underline a problem with our data sources. The maps here use the RCHME transcription location for the building (Bewley and Fulford 1996) and not Corney's (Corney 1984). They differ significantly. Corney plotted the building *c.* 30 m east-south-east. However, the geophysics match best with the RCHME location. The problem is that Corney placed his ceramic and CBM scatter directly above where he transcribed his building. By plotting his ceramic scatters here it now appears as if there is a mismatch between the scatter and the building, and this may be entirely inaccurate.

The building is apparently isolated, in that it is not on any obvious main roads or droveways, although both Fulford and Corney separately noted that one of the additional postern gates in the Town Wall was not far away: 'It seems that this building was considered by the planners of the defences to be important enough to warrant its own access from the town. An immediate question which springs to mind is whether this was a private or "public" structure of special function. The postern gate was blocked in the late Roman period, although the exact date could not be ascertained. … the drop in Period 5 material from this area may help to clarify this problem …' (Corney 1984, 263; see also Fulford 1984, 58).

- FH:45, Flavian-Hadrianic: 250 m^2, 0.40 kg.
- AE3:63, Antonine to early third century: 1800 m^2, 1.20 kg (incl. 1 plated denarius of Septimius Severus).

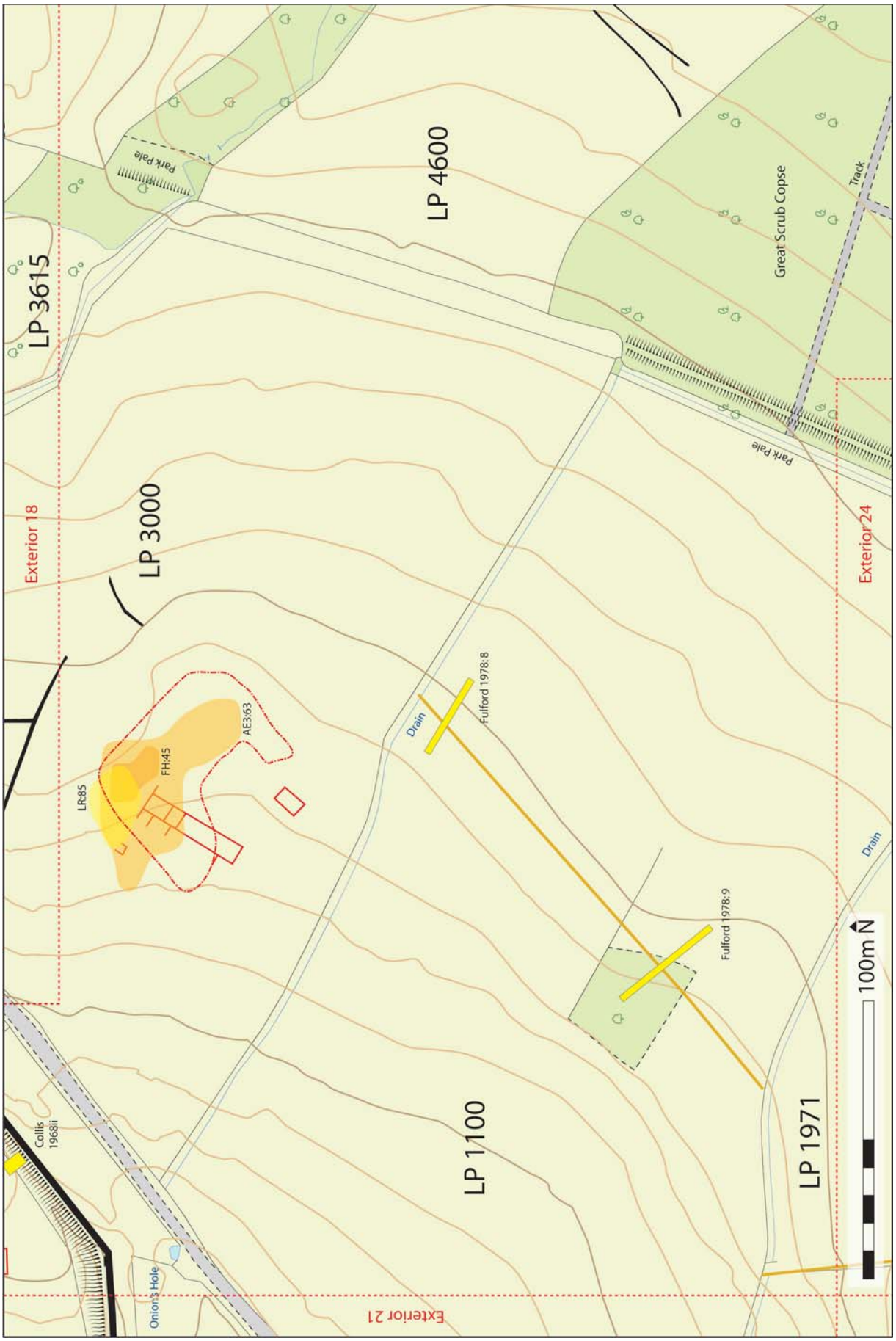

FIG. 6.65. Exterior 22 – excavations, aerial photography and fieldwalking.

FIG. 6.66. Exterior 22 – fluxgate gradiometry (± 2 nT).

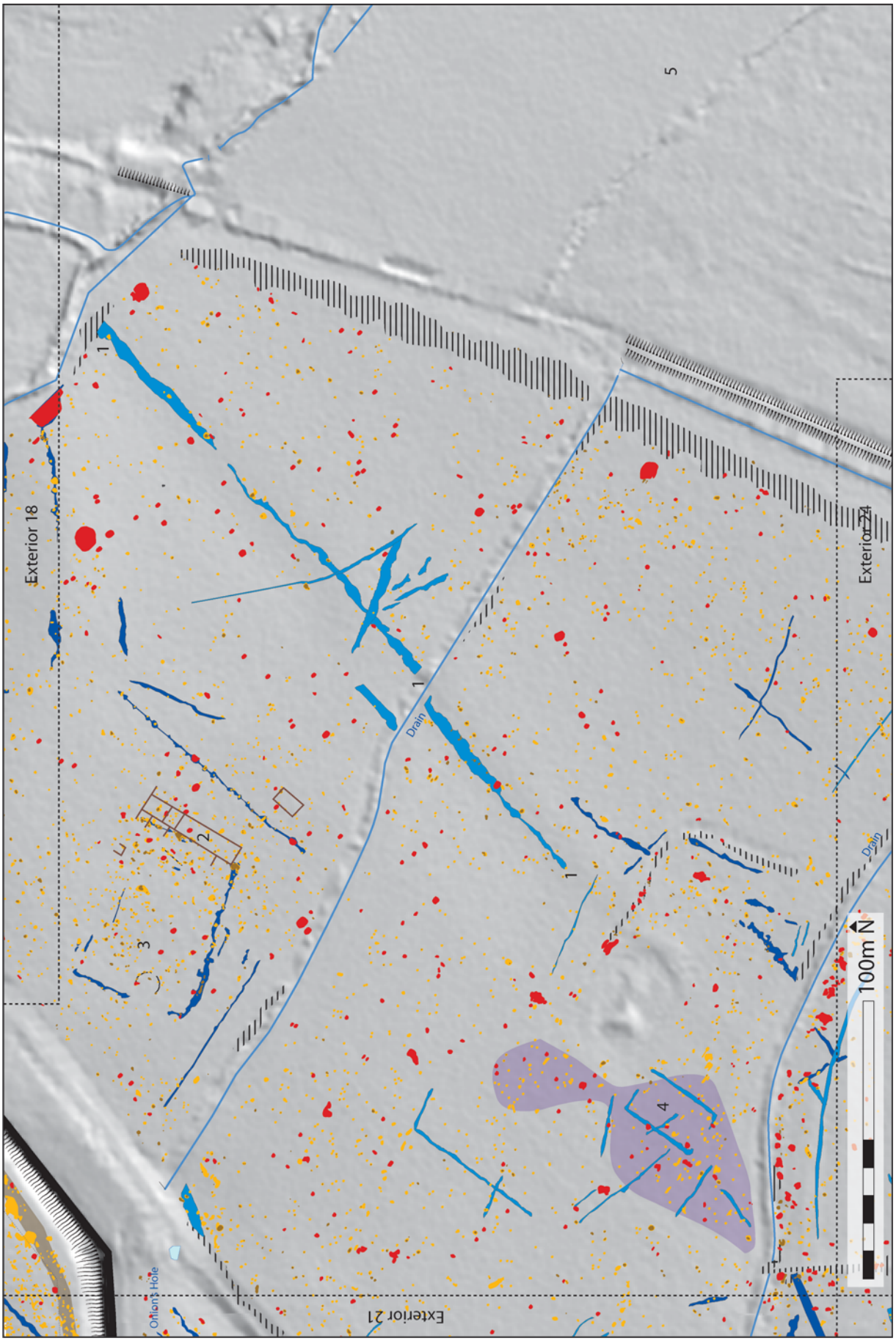

FIG. 6.67. Exterior 22 – geophysics interpretation on top of LiDAR data.

- LR:85, mid-third to late fourth century: 350 m^2, 0.30 kg (restricted to the northern end of the rubble scatter, and may indicate a decline in activity or occupation around the building in the fourth century).

Building and possible inhumations

Around the small clump in the middle of field LP 1100, and just inside the supposed 'Outer Earthwork' is a large rectangular feature, *c.* 17 x 28 m [4]. Superimposed on this is the rippled signature which near the London road can be argued to relate to inhumation burials. Corney reported no significant fieldwalking finds from this field, but then neither were there any above the highly likely inhumation cemetery by the London road.

Droveway

To the south-east Corney plotted a north-east–south-west-aligned droveway from his interpretation of the aerial photography [5]. The field produced a little CBM and some Saxon sherds.

EXTERIOR 23 (FIGS 6.68–70)

FIELDWALKING

LP 0068: Corney walked over 6–10+ seasons, 1 ceramic group identified; UoRSP also found a cluster of Roman sherds to the north of the field matching Corney's distribution.
LP 3859: UoRSP found 1 flake, 4 medieval sherds and a light scatter of Roman/medieval tile.
LP 5066, 5647 and 7749: Corney walked over 3–5 seasons, with no significant finds reported. Within LP 5066, UoRSP found 1 flake, and a light scatter of Roman/medieval tile. Within LP 5647, UoRSP found 4 flakes and a scraper, 1 medieval sherd, and a light scatter of Roman/medieval tile, mainly to the north-east towards the stream.

KEY FEATURES

The South-East Enclosure

The main geophysical linear feature seen crossing LP 7468 and 0068 [1] is the ditch of what is called the South-East Enclosure; this is discussed above in the 'Mapping the Earthworks' section. It is not possible to trace the feature in the LiDAR into LP 5647. Within Churchlane Copse there is an earthwork marked on the OS to the south of the line of the ditch, as judged from the geophysics; however, the LiDAR shows up a clear ditch on the same alignment as the geophysical one but also a shade suggesting a bank on the north [2].

Oldhouse Lane Dyke

The Oldhouse Lane Dyke appears to start in the middle of LP 7468 [3], and there is no indication of it continuing further to the north-north-east. It could be that it turned to join the alignment of the South-East Enclosure [4]. That the South-East Enclosure has what looks like a field-boundary running at 90 degrees to it which runs under the Oldhouse Lane Dyke would tend to suggest the Dyke was later [5]. There are similarly two other features at right-angles to each other which appear to be cut by the Dyke, a short stretch of droveway and a more-or-less perpendicular division running away from it [6–7]. If these are related, then they again suggest the linear earthwork might be later, making a Late Iron Age date for it less likely.

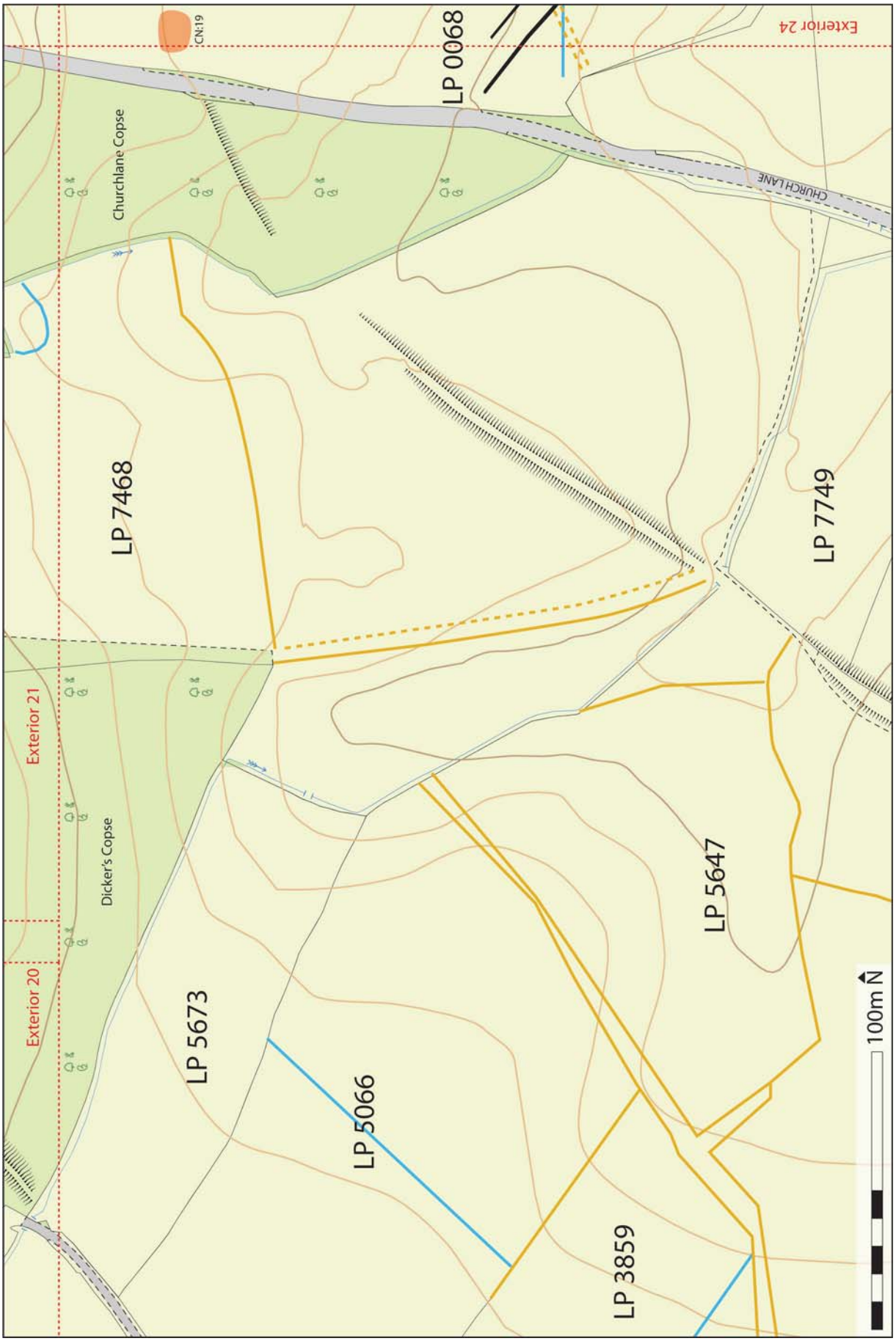

FIG. 6.68. Exterior 23 – excavations, aerial photography and fieldwalking.

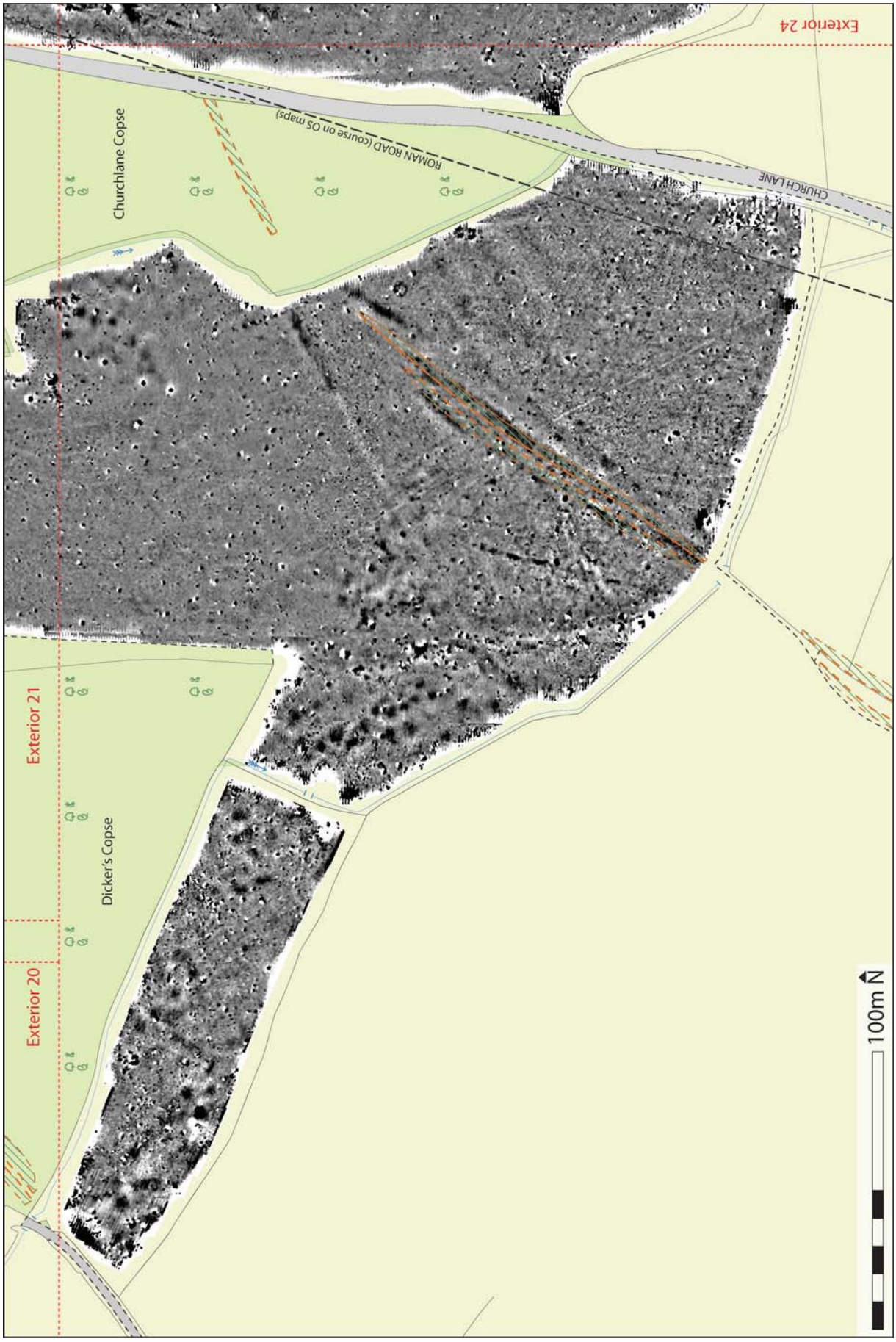

FIG. 6.69. Exterior 23 – fluxgate gradiometry (± 2 nT).

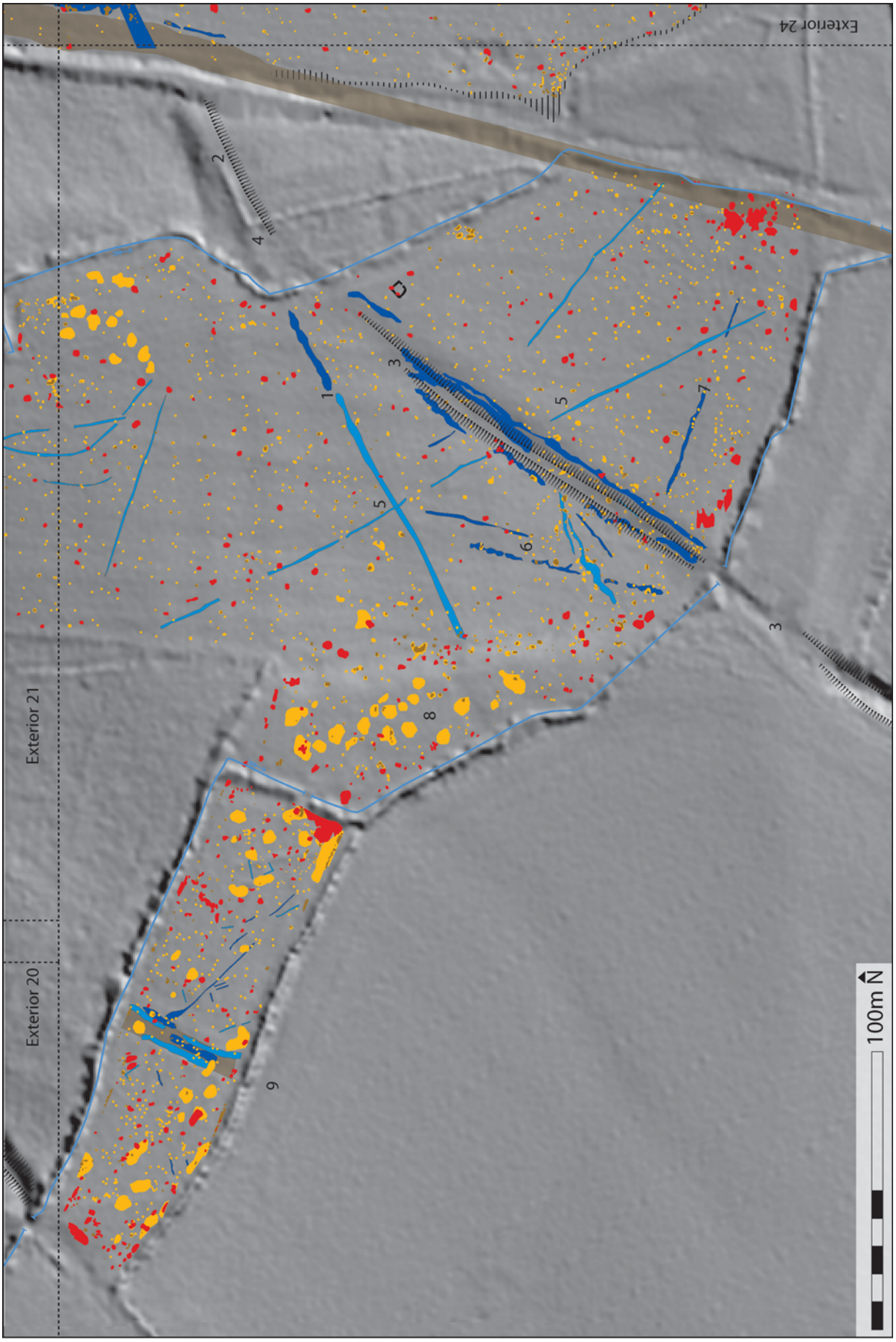

FIG. 6.70. Exterior 23 – geophysics interpretation on top of LiDAR data.

Clay-pits

Down in the valley bottom there are a large number of pits which appear to have been cut into the clay, 5–8 m diameter [8]. These may be for pottery or CBM production, or perhaps could have been reused as tanning-pits given the local supply of water. They continue up the brook into Exterior 20 (discussion p. 416).

The road to the south-west

Towards the west in LP 5673 there are hints of the road to the south-west passing through this small parcel of land in the fluxgate gradiometry [9]; however, this could equally be an old land division as the angle is slightly more akin to that of the eastern field-boundary of this parcel and a few degrees off the alignment of the road to the south-west in LP 0001 and 6991 (Exterior 21).

- LP 0068 CN:19, Claudio-Neronian: 150 m^2, 0.80 kg.
- Coin, Iron Age copper. From near junction of LP 5647, 7749 and 7468 near Oldhouse Lane Dyke.

EXTERIOR 24 (FIGS 6.71–73)

FIELDWALKING

LP 0068, 1100 and 1971: Corney walked over 6–10+ seasons, 3 ceramic groups identified. Within LP 0068, UoRSP found a scatter of struck flakes and a core fragment, Roman pottery, conforming to Corney's distribution, with a few elsewhere, and 1 medieval sherd. Within LP 1100, UoRSP found a light scatter of Roman sherds and a little Roman/medieval tile towards the southern corner of the field. Within LP 1971, UoRSP found a few flakes and a few Roman sherds.
LP 0041 and 4563: Corney walked over 1–2 seasons, with no significant finds reported. Within LP 0041, UoRSP found 2 flakes and a scraper from this field, south of the area on this sheet. Within LP 4563, UoRSP found nothing.

KEY FEATURES

Park Pale

The earthwork to the north-east is probably part of the deer park that the Norman Ralph Bluet was licensed to enclose in 1204 (Page 1911, 51–6) [1].

Roman cremations

In the north-west area there are several fieldwalking scatters which were associated with cremations, see discussions in Exterior 21 [2]. A later first-century cremation and another later Flavian cremation with samian and glass were noted (Goodburn *et al.* 1976, 368–71; Grew *et al.* 1980, 394–5).

Field-systems

Cutting across the north-west area is the South-East Enclosure [3]. Parallel and perpendicular to this earthwork are linears which suggest a rectilinear field-system [4] (which is also parallel

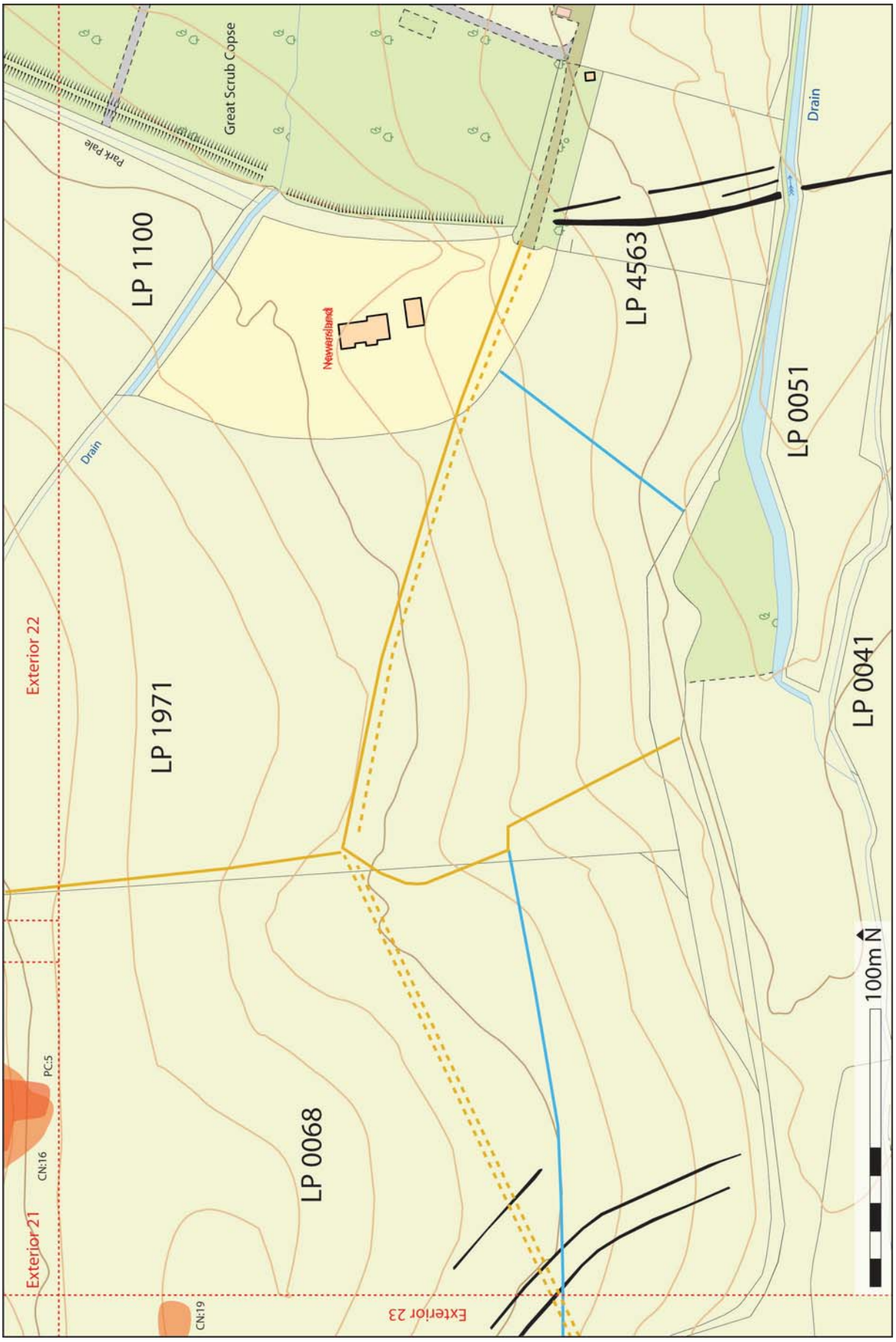

FIG. 6.71. Exterior 24 – excavations, aerial photography and fieldwalking.

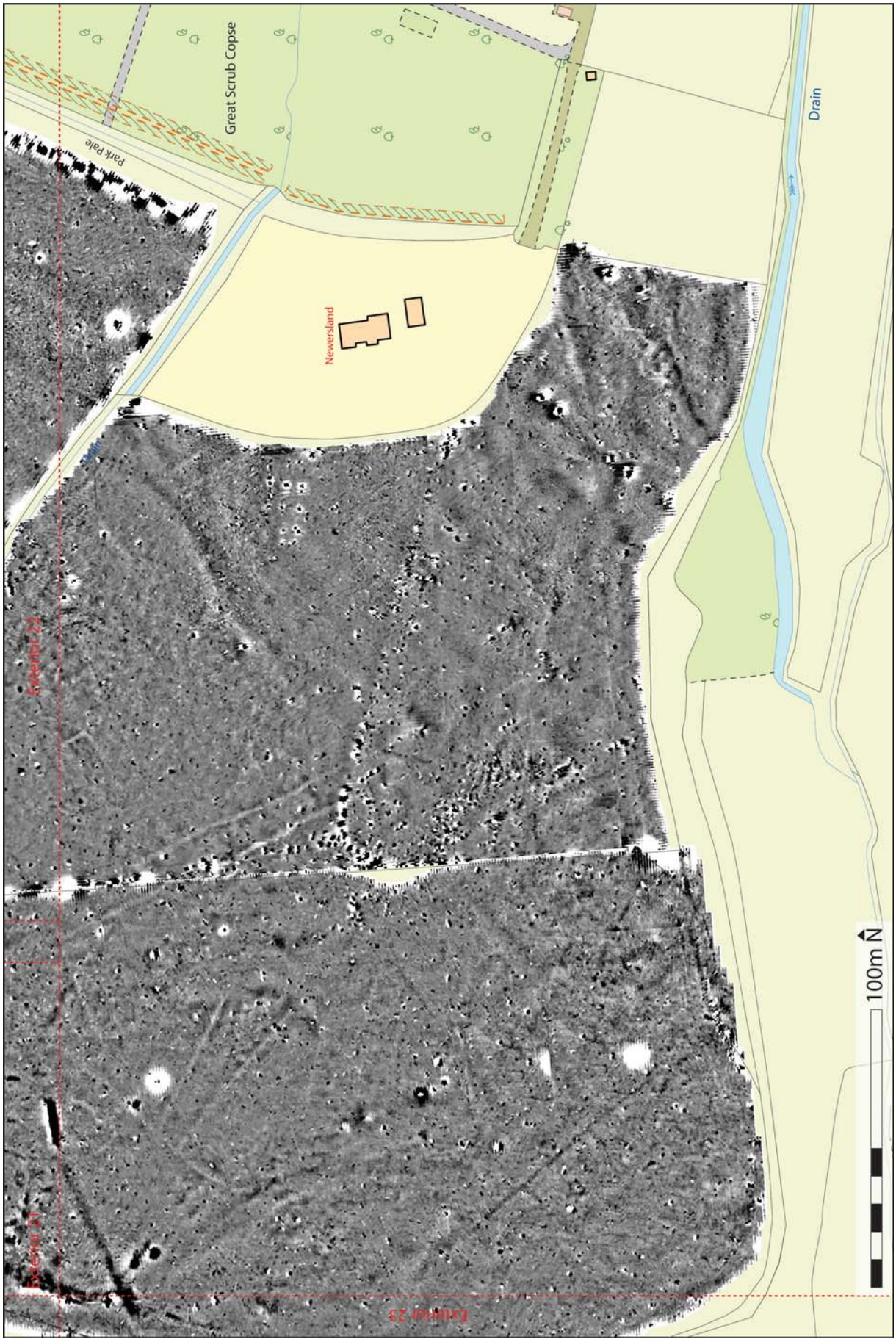

FIG. 6.72. Exterior 24 – fluxgate gradiometry (± 2 nT).

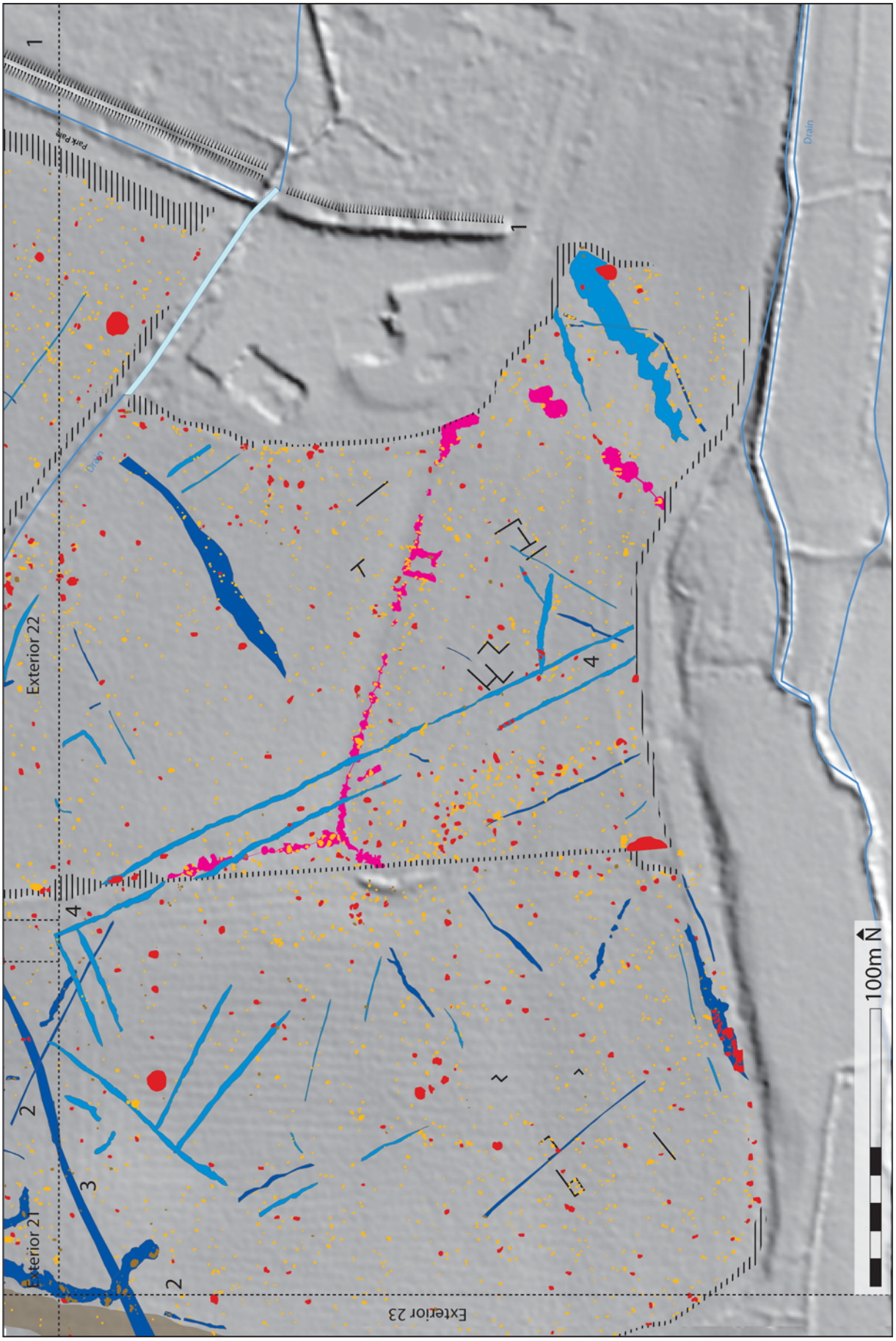

FIG. 6.73. Exterior 24 – geophysics interpretation on top of LiDAR data.

to the Silchester to Chichester road). The rectangular shape of this field is fairly precise. If the parallel linears [4] are the eastern side, then the western side is Exterior 23: Feature [5]. The distance between these two parallel lines is 355 m (*c.* 1200 Roman feet), which is half the size of a classic 200 *iugera centuria* land-parcel which would be 710 m square. One field does not make a field-system, but it is worth noting if further survey is conducted to the south-east. The orientation of the field-boundary is the same as the Roman road branching off the Silchester to Winchester road to Chichester, suggesting a large-scale re-planning of the fields in the area may have taken place. Timby has noted how by the second century many of the Later Iron Age and early Roman sites in the area had disappeared, suggestive of some overall re-organisation of the landscape (Timby 2012, 145).

OUTSIDE THE AREA OF THE DETAILED SHEETS

The following features have been noted within the area of the Exterior index map, but just outside one of the areas where geophysics was undertaken. The field numbers can be seen on the map index (FIG. 6.1).

Great Scrub Copse and LP 4563, 6666 and 8655

LP 6666: Corney walked over 3–5 seasons, with no significant finds reported.
LP 8655: Corney walked over 1–2 seasons, with no significant finds reported.
An evaluation in LP 4563 and 6666 ahead of a proposed (but unbuilt) small reservoir revealed traces of an Early Iron Age or Late Bronze Age settlement to the north. This area contained cropmarks and droveways which continued on into LP 8655 (Corney 1984, fig. 79; Fulford 2011; Frere *et al.* 1988, 477).

CHAPTER 7

THE MATERIAL EVIDENCE FROM SILCHESTER

In conducting the literature review which sought out the earlier excavations and fieldwork, a note has been made of material studies relating to Silchester. This section helps the reader navigate towards areas of material interest, to facilitate research using the material from the site. The purpose here has been to provide an annotated bibliography of the work that has been done, showing the development of research in the area, and headlining the key results. Where regional or national syntheses have been undertaken incorporating Silchester material, these have also been indicated.

FAUNAL REPORTS

Analysis and mention of the faunal remains during the Antiquaries' excavations was sporadic until mid-way through. In the first season there were identifications by Woodward, including dog, red deer, roebuck and possibly fallow deer (Fox and St John Hope 1890, 741). In the second season this became a more formal report by Herbert James, though omitting the fallow deer identification from the previous season (Fox 1892, 285–8); a sketch biography of him is provided by Boon (1981a). The number of skulls of dogs caused particular comment, which James followed up the next season (Fox and St John Hope 1893a, 571–3), but thereafter things went quiet, and it is difficult to know what, if anything, was being collected. The animal remains from 1893 called 'for no special remark' (Fox and St John Hope 1894, 238), and from then until 1902 they got no mention at all with the exception of a few identifications by Garson from the 1899 season (St John Hope and Fox 1900, 111). It was only from the 1902 season that reporting became a regular feature of the annual publications, with identifications of mammals, birds and fish being made by Edwin T. Newton, who is perhaps better remembered as a palaeontologist (St John Hope 1903a, 423–5; St John Hope and Fox 1905a, 369; St John Hope 1906, 164–7; 1907a, 449; 1908, 213–14; 1909a, 485). The twentieth century saw no bone reports from the excavations by Cotton, Boon or Richmond, but a wide range of individuals have worked on the material thereafter. Graeme Barker examined those from the excavations by Collis (1983, 67). Mark Maltby carried out the work on the bones from Fulford's excavations on the defences, including the butchery-waste deposit from the south-west corner (Fulford 1984, 199–212). Annie Grant reported on the few from the Amphitheatre (Fulford 1989c, 137–8) and the Basilica (Fulford and Timby 2000, 425–82). Sheila Hamilton-Dyer examined the material from the North Gate, which was predominantly cattle waste from butchery. Other observations included that neonatal pig bones suggested they were kept in the town (Fulford *et al.* 1997, 131–5). Dale Serjeantson examined the bird bones from the Basilica (Fulford and Timby 2000, 484–500; see also Serjeantson and Morris 2011).

The animal bones from the most recent campaigns in Insula IX have been assessed by Claire Ingrem showing cattle predominating. There was a mix of butchery waste and a lack of visibility of major meat-bearing bones, suggesting the intensive processing of cattle limb-bones for marrow and grease (Fulford *et al.* 2006, 167–88; Fulford and Clarke 2011a, 244–70). Analysing the major species, particularly cattle, from all the quantified assemblages, Ingrem focused on butchery and processing, taxa representation, mortality profiles, stature of sheep and cattle, and placing the assemblage in its regional setting in comparison to other sites (Ingrem 2012).

DOGS

The prevalence of dogs from the site, with over 50 from the Antiquaries' excavations, has often drawn comment (Fulford 2001, 202, 205), with more added to them from the Insula IX excavations by Kate Clark (Fulford *et al.* 2006, 189–95; Fulford and Clarke 2011a, 271–8). Cut marks were observed on some of the Late Roman dog bones suggesting butchery and skinning (for a discussion on a tanning industry at Silchester see p. 413). A description and discussion of the dog burials at Silchester in a national context is provided by both Smith (2006, 17–18) and Clark (2012), and their depositional context is discussed by Eckardt (Fulford *et al.* 2006, 227–8).

FISH

Fish species were recognised and reported on in the later *Archaeologia* reports (see above for references). In later excavations they were reported on by Hamilton-Dyer (Fulford *et al.* 1997, 131–5; Fulford and Timby 2000, 485) and Ingrem (Fulford *et al.* 2006, 167–88); the finds have been set within their national context by Locker (2007, 153, 162).

OYSTERS

Joyce discovered a major deposit of oysters which lay beneath the Forum, and this was explored further by the Antiquaries (Joyce 1881b, 355; Fox and St John Hope 1893a, 562). When Fulford came to excavate under the Basilica, oyster and mussel shells were present from the very earliest Iron Age phase onwards (Grant in Fulford and Timby 2000, 430). More detailed analysis was conducted by Elizabeth Somerville on samples from the North Gate where she considered those dating to around the construction of the Town Wall came from the south coast, judging by the pattern of infestation on them. She also noted they were of a good size (Fulford *et al.* 1997, 135–9). Sandie Williams and Somerville studied the oysters from the mid- to late deposits at Insula IX, suggesting similar patterns of infestation and therefore similarly a probable south coast origin for these slightly later deposits (Fulford *et al.* 2006, 196–9; Fulford and Clarke 2011a, 279–80).

HUMAN REMAINS — see Chapter 13

INSECT REMAINS

When Lyell went through the botanical remains from the muds and silts of the Antiquaries' excavations, he also separated out many insect remains which were passed on to Charles Waterhouse at the Natural History Museum (a godson of Darwin). Unlike Lyell, his results remained unpublished until his manuscript and sorted samples were re-discovered by Boon in Reading Museum, whereupon the material was re-analysed, though with few revelations (Amsden and Boon 1975).

It was to be a century later that significant examination of insects would recommence at Silchester with Robinson's work on Insula IX. Mineralised arthropod remains were investigated from the later Roman latrines, again leading to few revelations since much related to the specific context rather than broader ecological issues. Similarly, comparable results were obtained from the mid-Roman cesspits. However, waterlogged samples from mid-Roman layers did contain good coleoptera samples indicative of grassland and sparsely vegetated disturbed ground habitats, as well as suggestive of widespread infestation of woodworm in buildings. However, the indication of the likely honey bee colony in the vicinity was perhaps the nicest addition to colouring the impression of the environment (Robinson in Fulford and Timby 2000, 212–16; and Fulford and Clarke 2011a, 281–93).

BOTANICAL REPORTS

The earliest recorded floral remains appear to be three stone-pine cones in the Reading Museum

collections which Boon believed may have been recovered by Joyce; there are no records to go with them (Boon 1974, 165).

Flora was much neglected by the Antiquaries until half-way through the excavations. There had been an early mention by the animal bone specialist, Herbert James, of some cherry and plum stones in a mortarium from the 1891 season (Fox 1892, 285–8), but that was it. However, in the report for 1900 we learn that investigation had begun in 1899 with plant remains being recovered by Arthur Lyell and identified by Clement Reid, which he published in his grand survey of the origins of the flora of Britain (Reid 1899). Earlier studies had been laid before the Society, but for some reason Fox had chosen not to include them in his published annual reports. They finally started to appear with Reid in Fox *et al.* 1901 (252–6), and thereafter for every season until 1908, the last in the interior of the town (St John Hope 1902, 34–6; 1903a, 425–8; St John Hope and Fox 1905a, 367–8; St John Hope 1906, 164; 1907a, 449; 1908, 210–12; 1909a, 485). It is notable that the reporting of both the floral and faunal remains became far more regular after St John Hope took over as the lead writer.

Amongst the items noted as curiosities were the 1901 material from Insulae XXIIb and XXVII, where Reid noted the exceptional number of hemlock and belladonna seeds in the well deposits. By 1902 he associated the belladonna berries with cosmetics, and the hemlock as having come in with tall sedges for thatch. The 1903–4 remains from near the Public Baths included opium poppy (*papaver somniferum*), represented by ripe seeds rather than unripe capsules. The list of species identified as present grew every year until the last report on the 1908 season. The medlar stones he discovered from the 1903–4 excavations are still the only ones to have been found in Britain (Pollmann and Jacomet 2012, 65). Appreciations of his pioneering work have been compiled by Allen and Hughes (1991) and Robinson (2012, 213–16).

While there was no obvious environmental sampling from Cotton's, Boon's or Collis' excavations, flotation samples began to be reported on from Fulford's commencement of work. Michael Monk examined flotation samples from the South-East Gate and Martin Jones examined the remains from the Manor Farm and Basilica excavations (Fulford 1984, 222–3; Fulford and Timby 2000, 505–12), while waterlogged, charred and mineralised plant remains from the Insula IX excavations were analysed by Mark Robinson and Lisa Lodwick (Fulford *et al.* 2006, 206–18, 374–9; Fulford and Clarke 2011a, 281–93, 485–96; Lodwick 2010; 2014b). The work is rich in detail with evidence for box hedges and holly from possible ornamental gardens; there is also evidence for a surprising shift in the mineralised assemblage from plums and bullaces in the second century to apples in the fourth. Preliminary work on the pre-conquest layers is also starting to reveal olive stones, coriander, dill and celery seeds showing *Calleva* was networked into a revolution in taste that was happening in other parts of continental north-west Europe. A partial synthesis can be found in Robinson (2012) and a broader synthesis has also been undertaken by Lodwick (2014a).

A number of individuals have studied pollen from the site. Michael Keith Lucas's work on the pollen from the South-East Gate confirmed the area had been alder carr and marsh prior to the Town Rampart's construction, and that the general landscape was largely open, comprising heathland, pasture, hay meadows and arable. The report nicely linked back to Reid's earlier work (Fulford 1984, 215–21). Antonie van Scheepen's work on the pollen beneath the seating bank of the Amphitheatre suggested that pasture had predominated *c.* A.D. 55–70 (Fulford 1989c, 147–59). Later work by Jameson Wooders and Keith-Lucas from the Iron Age levels under the Basilica investigated late first-century B.C. to conquest period deposits from wells, suggesting the landscape transformed from undisturbed woodland at the beginning of settlement in a clearing to wide open pasture and hay meadow surrounding the developed oppidum. A secondary important conclusion was that the latter profile was similar to that previously analysed by Kirstie Shedden under Grim's Bank, opening the possibility that this is Later Iron Age or Early Roman, rather than early medieval (Fulford and Timby 2000, 523–33; see also Shedden in Astill 1980). Within Insula IX pollen was analysed from an early second-century cesspit by Petra Dark (Fulford and Clarke 2011a, 294–300), providing an interesting complement to Robinson's macrofossil evidence. The predominance of dill and brassicas was notable.

Wood was analysed from various projects, including Ruth Morgan identifying the alder and

oak used as piles under the Town Wall (Fulford 1984, 212–15), Jacqui Watson's identification of the oak used to construct the Amphitheatre (Fulford 1989c, 139), and Vanessa Straker's examination of the charcoal from the Basilica (Fulford and Timby 2000, 425–82).

Alongside wood for heating purposes, coal has also been identified as potential fuel at Silchester. Fragments have been found ever since the Antiquaries' excavations (St John Hope 1907a, 449), and work has taken place to consider the main fuel supplies for Silchester (Veal 2012), as well as to place them in their national context (Dearne and Branigan 1995).

COINAGE

Coins were amongst the earliest collected and recorded objects from the town. As early as Stair's excavations a gold coin of Allectus was commented upon (now in the British Museum) (Ward 1748, 609–13). Its findspot in later years 'gained the name silver hill, because more silver coins have been found there, than in any other part of the city' (Maclauchlan 1851), presumably marking a dispersed hoard, perhaps that shown to the British Archaeological Association when they visited the area in 1846 (Anon. 1846b). By the mid-nineteenth century the productivity of the site was so well established that fake coins were created and attributed to the site for collectors (Kell 1866, 358–9).

Often, during the Antiquaries' campaigns, the coin finds were not reported on. Remarks such as the following were common: 'the coins found were comparatively few in number, and of no special significance' (St John Hope and Fox 1896, 252). Only some of the hoards generally excited attention, so the evidence is more detailed, but even there Boon later dug out more from the Silchester collection than were originally published.

COIN HOARDS

There are two hand-lists for Silchester, by Boon (1960) (elaborated upon with up-to-date references by Wythe (2011)) and Robertson (2001). Neither is complete, and there are discrepancies. A revised list in order of the terminal date of the hoard is given below with discrepancies indicated.

TABLE 7.1. COIN HOARDS FROM SILCHESTER

Date	Contextual information	Contents	References
1894	Insula IX, near Pit D, in a black vase	253–8 denarii, to Clodius Albinus, A.D. 194–5	Fox (1895, 455); catalogue by Grueber (Fox 1895, 473–88) and contextualised by Haverfield (Fox 1895, 489–94); see also Anon. (1898); May (1916b, 118); Boon (1960, Hoard I); Robertson (2001, Hoard 362). Details for 257 coins in Wythe (2011, 362–3).
1908	Insula XXXVI Pit 12	3 'silver coins', 2 of Antoninus Pius, 1 Gordian III, A.D. 238–44	St John Hope (1909a, 481). Not called a hoard by Boon or Robertson, though 3 silver coins together are not normal site finds.
1897	House XVIII.2, Room 15	22 radiates (incl. 1 copy), to Carausius A.D. 286–93	Originally unpublished. Boon (1960, Hoard II); Robertson (2001, Hoard 843). Details Wythe (2011, 363). See also (Casey 1977, 286 n.).
1865	House I.1 'in the room to the west of the triclinium'	40–2 radiates, to Carausius, A.D. 286–93	Joyce (1881a, 340–1) and Journal 24 Nov. 1865; see also Boon (1960, Hoard III); Robertson (2001, Hoard 842). Details of 42 coins in Wythe (2011, 363); Boon dismissed two of them from the hoard.

Date	Contextual information	Contents	References
1892	'a house south of the Forum'	6 or 8 Constantinian GLORIA EXERCITVS 2 standard coins and CONSTANTINOPOLIS A.D. 335	Originally unpublished. 6 coins stuck together identified by Boon (1960, Hoard IV); while Robertson (2001, Hoard 1182) and Wythe (2011, 363) report 8 based on a museum record.
1891	Insula I, under a quern in a passage leading northwards from the south frontage	1 barbarous radiate, 16 Constantinian, 1 FEL TEMP REPARATIO copy	Fox (1892, 269); see also Boon (1960, Hoard V); Robertson (2001, Hoard 1268); Brickstock (1987, Hoard 89). Details of 18 coins in Wythe (2011, 363). Note: Brickstock felt the latest FEL TEMP coin was a stray and was unusual compared to the others in a hoard.
1908	Block XXIX.VII, against the east wall of the main room	87 coins of Theodora and Constans, including 57 VICTORIAE DD AVGG Q NN and 21 GLORIA EXERCITVS	Original find and types listed: St John Hope (1909a, 478–9); see also Boon (1960, Hoard VI); Robertson (2001, Hoard 1231). Details of 87 coins in Wythe (2011, 363).
1891	Insula III, south-east corner, a pot concealed in the foundations	2 radiates and 34 later *aes*, latest coin VICTORIAE DD AVGG Q NN, A.D. 341–48	Fox (1892, 284); see also Boon (1960, Hoard 7); Robertson (2001, Hoard 1230); Brickstock (1987, Hoard 90). Details of 36 coins in Wythe (2011, 363–4).
1961	Insula IV, the 'church', during Richmond's excavation	1 radiate, 6 *aes*, latest coin FEL TEMP REP (probably not a hoard)	Frere (1976, 287–90, 297–9); see also Robertson (2001, Hoard 1273).
1874	A scattered hoard? No location, but excavation of House XXXIV.1 was underway	Fourth-century *aes*: 8 pre-A.D. 330, 88 A.D. 330–41, 6 A.D. 341–8, 1 Gratian; latest coin Gratian	Joyce's Journal, 7 Feb. and 16 July 1874; see also Boon (1974, 312); Robertson (2001, Hoard 1412).
1868	Forum	7 radiates, 28 Constantinian, 4 Valentinianic, the rest 'worthless', a silver of Licinius. Latest coin Valens I	Joyce's Journal, 27 Feb. 1868; see also Boon (1974, 321); Robertson (2001, Hoard 1452).
1869	No location, though most attention was being paid to the Forum that year	Theodosian *aes*, latest coin Arcadius	Joyce's Journal 21 September 1869; see also Boon (1974, 311); Robertson (2001, Hoard 1492).
1833	Insula VIII *Mansio* bathhouse lead piping, during Coles' excavations	200 *aes*, probably fourth century judging by the interpretation	Kempe (1833, 125; 1838, 418); see also Robertson (2001, Hoard 1749).
1985–8	LP 2900, SU 6347 6212, just beneath the ramparts of Rampier Copse	51 siliquae, many significantly clipped, suggesting an early fifth-century deposit, along with several other coins and 7 whole or broken rings	Full report (Fulford *et al.* 1989); interim statements (Fulford *et al.* 1987; Frere *et al.* 1988, 477); see also Robertson (2001, misrecorded as two hoards 1534–5).
c. 1706	In a pot	No details	(Hearne 1889, 438)
Pre-1846	Possibly House XVI.3	A large number of silver coins (denarii or siliquae most likely) were displayed by the Revd Thomas Streatfield FSA as found 'some years since' at Silchester	This may be the eighteenth-century find from House XVI.3 which led to the area being referred to as 'Silver Hill' on Stair's map, though that was quite a few years earlier (Anon. 1846b; Taylor 1759).

SITE FINDS

Cataloguing of the Iron Age finds from the area began with Seaby (1938) listing the few found in Berkshire and the Silchester district, but none with locations. Boon built on this, collating the 23 known Iron Age coin finds (4 Durotriges; 1 Tasciovanus; 6 Cunobelin; 1 Epaticcus; 1 Dobunni; 1 Trinovantes; 1 'Brigantes'; 1 Gaulish?; 1 Gaulish GERMANVS INDVTILLI L; 6 Uncertain British), and was somewhat concerned by the predominance of coin from dominions other than those of the Atrebates (Boon 1954a). He updated his list of Iron Age coins in the Basilica report (Fulford and Timby 2000, 163–70, Schedule B).

For general coin lists, the 2,000 or so from the Antiquaries' excavations were initially published by Pearce (1929). Allen reported on those found during Cotton's excavations (Cotton 1947, 147–9). Boon (1969, 45–6) reported on his own finds and those from the 'church' (Frere 1976, 298–9). Posthumously, much of Boon's work identifying and collating the collections within Reading Museum and Stratfield Saye House was revisited by Wythe's publication of 13,400 coins found in and around Silchester which had been recorded by Boon in the 1950s (Wythe 2011). Reece identified those found by Collis (1983, 65).

Goodburn, Esmonde Cleary and Boon identified the coins from Fulford's early work on the town defences (Fulford 1984, 109–10). Boon identified the coins from the Amphitheatre (Fulford 1989c, 77–9), North Gate (Fulford *et al.* 1997, 109–11) and the Basilica excavation (Fulford and Timby 2000, 127–62, Schedule A). The coins from the first two volumes from Insula IX were identified by Besly (Fulford *et al.* 2006, 81–5; Fulford and Clarke 2011a, 96–9).

OTHER DISCUSSIONS

In terms of specific aspects, a list of the 12 Roman gold coin finds known from the site forms part of a national survey (Bland and Loriot 2010, 73–4, 162–5); Boon (1951) discussed the plated coins from the site and also the hypothesised Carausius II, after finding the fabled coin while re-sorting the Reading Museum collections (Boon 1955). Boon also summated and discussed all the early pre-Flavian coinage, including the Claudian copies, when he wrote up the coin finds for the Basilica report (Fulford and Timby 2000, 170–9, Schedule C).

IRON AGE COIN PELLET MOULDS

The Antiquaries' excavations produced eight fragments of pellet moulds, though only two had any locational information. One came from Insula II, close to the Basilica; the other is from a pit which had been truncated by the Town Rampart ditch just outside the West Gate (St John Hope and Stephenson 1910, 324–6). Neither was remarked upon at the time, but Boon reviewed and described them from the collection in Reading Museum (Boon 1954b). The identification of the pit can be narrowed down to one of two, both containing pre-Claudian material, but also post-conquest to early second-century pottery. Both pits were inside and more-or-less adjacent to the Inner Earthwork boundary. The fragments are described in detail by Boon.

Corney's fieldwalking also produced a fragment amongst a spread of pre-Claudian material from Rampier Copse (LP 6805, PC:7, see Exterior 21) which was located over the boundary of the hypothesised Rampier Copse enclosure. In his conclusion he provides a plot of the location of other fragments known from the site which includes two otherwise unreferenced locations from near the 'church' and near the Public Baths, which could be the two additional fragments Boon reported as having been found near the Forum in 1961 (Boon 1969, 25; Corney 1984, 287, fig. 84).

From the Basilica excavations came 21 further fragments, which were written up with a good review of our understanding of how these moulds were used provided by Northover and Palk (Fulford and Timby 2000, 413–15). More have come to light in the Insula IX excavations which will be reported on in due course (Fulford *et al.* 2011, 4).

POTTERY STUDIES

During the Antiquaries' excavations, throughout the annual reports there are casual but unsystematic references to the ceramics. By the fifth season the excavation committee still had not identified anyone to examine it all: 'the pottery found at Silchester has not as yet been taken in hand by any specialist, though it is seldom such an opportunity occurs, or is likely to occur again, for a careful examination of such varied amount of material, found also on one site and without any earlier or later admixture. The study, no doubt, would require some patience, and the leisure which few in these days appear to possess, but it certainly would repay the trouble bestowed upon it' (Fox 1895, 459). A few years later Fox wrote a short piece examining the 'pseudo-samian' from the site (Fox 1898), and then an extended essay about the material in an annual report (St John Hope and Fox 1900, 101–8). Thomas May finally came to the rescue, bringing to the task extensive knowledge, having written on the ceramics from a range of sites in the North and having developed a specialism in potter's marks on terra sigillata. His work was perhaps as detailed as it could be given there was little contextual information (May 1916b; a).

Contextualisation, however, was fundamental within Cotton's report as she tried to date the defences. Specific groups were well described along with reports on the samian by Davies Pryce and Stanfield (Cotton 1947, 149–67). Boon analysed his own material and integrated lists of the ceramics found into the structural reports of his trenches, before then describing stratigraphically important groups (Boon 1969, 52–80). Frere's write-up of Richmond's excavation of the 'church' was aided by a samian list by Hartley and analysis of the coarseware by Wilson (Frere 1976, 299–302).

Broad use was made of the collection. The 'Belgic' material was used in arguments over the invasion (or otherwise) of the Belgae by Hawkes and Dunning (1930, 331), while the terra sigillata was entered into national surveys by Stanfield (1929, 134 and 144; 1936, 114); and Hartley used the stamps from Silchester as a control for a 'normal' background against which to judge the pattern from sites in Scotland (Hartley 1972, 26). Since then the extant material from all of these early excavations by the Antiquaries, Cotton, Boon and Richmond in Reading Museum has been re-catalogued by Bird and Dickinson (the samian) and Timby (the coarsewares) as part of a re-documentation programme.

In the modern excavations led by Fulford, and some of the evaluations, analysis has been dominated by Timby and Bird, with additional input from Tyers and Dickinson (Fulford 1984, 122–95; 1989c, 80–123; Fulford *et al.* 1997, 118–29, 147–53, 162–6; Fulford and Timby 2000, 180–312; Fulford *et al.* 2006, 86–115; Fulford and Clarke 2011a, 143–203, 399–422).

Timby, who has done most of the recent site work and also studied other key sites in central southern England over the years, has written an excellent contextualising article (Timby 2012). Pitts has also done some interesting work using Timby's and others' data to compare the assemblages in various British *oppida* and early Roman towns (Pitts 2010).

Thematic articles drawing specifically upon the Silchester material have included work on residue analysis (Marshall *et al.* 2008) and ritual holes in pots (Fulford and Timby 2001). While placing the material into its national context has included a study of graffiti on pots (Raybould 1999); discussion of the earliest identified Central Gaulish imports (Rigby and Freestone 1986); the distribution of Silchester ware (Charles 1979); Black-burnished ware (Allen and Fulford 1996, 244, 279); Rhenish products (Ward Perkins 1940, 71); and inkwells (Willis 2005). Experiments in laser scanning the decorated samian can be seen in O'Riordan (2008). Finally, a circular pastry mould was found, made from clay, bearing the impression showing various people making a sacrifice standing around a tripod; while rare in Britain, such moulds are better known in the Balkans. Boon thought these might represent Septimius Severus and Caracalla, perhaps marking their victory in the British War of Severus, or the elevation of Geta to the rank of Augustus in A.D. 209 (Boon 1958b; Liversidge 1968, 185; Marsden 1997, 3).

BRIQUETAGE

The Late Iron Age phases under the Basilica produced a large assemblage of briquetage for

which Timby found parallels in Kent more than on the South Coast, though heavy mineral analysis by Williams, only comparing the Silchester samples with Kentish specimens, was more ambiguous about the attribution (Williams 1993a; Fulford and Timby 2000, 287–91). Little has been reported from Insula IX so far in the mid- to late Roman reports.

BRONZE AND STONE STATUARY

FROM THE FORUM

Super-human-scale fragments belonging to three statues have been recovered from the Forum. First, in 1890, within the northern apse of the Basilica came a lappet from the mailed skirt of a bronze statue in armour, perhaps over twice normal size (Fox and St John Hope 1893a, 557–8; Boon 1974, 118; Cunliffe and Fulford 1982, no. 153). Richmond considered it pre-Hadrianic in style and believed it must be an Imperial statue (Richmond 1944), or perhaps Jupiter in the guise of an emperor. Durham wondered whether the bronze Silchester Eagle was once part of such a statue, but it is much smaller in scale (Toynbee 1964, 52; Durham 2013, 101). Twenty-five further fragments of bronze statuary came from Fulford's excavation, written up by Boon (Fulford and Timby 2000, 348–57, 587–8).

Secondly, Joyce discovered, close to the steps leading into the Curia in the Basilica, a one-and-a-half-normal-size female stone head (Fox and St John Hope 1893a, 558–9). This was subsequently identified by Boon as a Tutela of the town; though made of Portland stone, he considered the craftsmanship to have a strong Mediterranean style (Boon 1973; 1974, 118–19). It was thought to be late second or early third century by Cunliffe and Fulford (1982, no. 97). In Fulford's excavations a fragment of a stone cornucopia was also found in the Basilica, a characteristic sometimes associated with Tyche, though it was not especially large (Boon in Fulford and Timby 2000, 391–2).

Thirdly, a sandstone sandaled foot on a super-human scale was discovered (referenced to an addendum to Joyce's journal in 1882; Boon 1974, 119; Cunliffe and Fulford 1982, no. 147).

Other fragments of sculpture from the Forum included six pieces in chalk, white marble and oolitic limestone suggesting a number of statues (Cunliffe and Fulford 1982, nos 148–52). Much may have been lost in the eighteenth century. Gough, in his translation of and additions to Camden's *Britannia*, relayed a conversation with Stair about his discoveries, saying that he had 'found twelve or more pedestals, and fragments of stone statues, too imperfect to bring away: he shewed me the small alabaster head of a man with curled hair, about three inches high, and said that many copper penates had been found' (Gough's addition to Camden, relayed in Brayley and Britton 1805, 249).

FROM ELSEWHERE

A stone head of Serapis was found in a secondary context (Col. Karslake's back garden, where it had been used as a shot-put and a cheese-press weight). Similarly made of Portland stone in a strong classical style, it may have come from one of the temples, or from the Forum-Basilica complex (St John Hope and Fox 1900, 110–11; Toynbee 1964, 93–5; Boon 1973; 1974, 167; Cunliffe and Fulford 1982, no. 112).

From the temple in Insula XXV came six fragments from two or three statues, one twice-life-size, another normal size. Associated inscriptions suggested there might have been statues of Victory, Mars and Pax, with that of Victory being the larger of the three (*RIB* 69–71). Greaves hinted at Mars being depicted, and the cornucopia could be associated with Mars or Pax (St John Hope 1908, 208; Boon 1974, 154; Cunliffe and Fulford 1982, no. 146; Frere and Fulford 2002).

Other carvings and statues reported in *CSIR* include a carved taper-holder depicting Mercury(?) from Insula V and an unfinished Lion in Greensand (St John Hope 1906, 163; Cunliffe and Fulford 1982, nos 109 and 163). The latter suggested stone carving was taking place on site.

FIGURINES

The most iconic figurine from Silchester is the Eagle found by Joyce in the Basilica (Joyce 1881b, 363–4; Boon 1974, 71, 119–20); its parallels have been comprehensively reviewed by Durham (2012; 2013; see also Henig 2012), and its context now suggests it is a first-century piece buried in A.D. 125–50 during the construction of the masonry Basilica.

A large number, for Britain, of bronze figurines has been found at Silchester. Summaries of these can be found in the secondary literature in various corpora. Pitts collated 26 alongside others from southern Britain (Pitts 1979); Durham's corpus has 18 bronze figurines (Durham 2011); 12 appear in Green's corpus of religious material (Green 1976); and 11 are referenced in Toynbee's classic survey (Toynbee 1964).

Some material which does not appear in any of these includes: a 0.12 m high bronze of a male deity with 12 rays of sun coming from his head, holding three ears of corn in his right hand, and a crescent moon on a handle in his left (Peake 1917); and two earlier discoveries of eagles (not the famous Silchester Eagle discovered by Joyce), one a small flat bronze figure of an eagle (Anon. 1849b, 295; another eagle was shown to a different Society which may be the same one: Anon. 1849a, 383), the other a much earlier discovery brought up by the plough: 'June 5, 1788. The bishop of Carlisle exhibited a curious Roman eagle in steel, supposed to have been a military ensign, and found latterly at Silchester, by the Rev. Mr. Powis, rector of that place' (Brayley and Britton 1805, 249; see also Anon. 1789; King 1801, 156).

While many of the objects have been analysed from museum collections divorced from their archaeological context, here are the primary sources for the few that we do have additional information for: a bronze Venus found *c.* 1826 (Fox 1897, 74; fig. 4; St John Hope and Fox 1896, 239); a bronze Lar Compitalis, found *c.* 1827 holding a disc (Ditchfield 1897); a bronze

FIG. 7.1. Two early recovered bronze statuettes from Silchester. Left: a flute girl from House XXIII.2 (Fox, St John Hope and Reid 1901, 249–50). Right: an earlier Lar Compitalis discovered *c.* 1827 (St John Hope and Fox 1896, 239).

eagle, cockerel and dog (Joyce 1881b, 354); a bronze Hercules (Fox 1897); a bronze flute girl and Venus Anadyomene (Fox and St John Hope 1901, 249–50); a pipeclay Venus (St John Hope 1903a, 423); a bronze Bacchus (Fox and St John Hope 1893a, 561); a white pipeclay Venus (Cotton 1947, 147); a pipeclay lion and Venus (Fulford and Timby 2000, 34); and a pipeclay Venus from Insula IX (Crummy 2012, 115–17).

INSCRIPTIONS

The inscriptions from the site are well published in *RIB* I (Collingwood and Wright 1965, nos 67–87). No additional entries appear in the later *RIB* III or volumes of *Britannia* up to 2013. However, a new Purbeck marble fragment has come from Fulford's excavations in Insula III with the letters '…]BA[…', plausibly Atre]ba[tum (Fulford *et al.* 2014, 9).

Over half of the inscriptions came from the Forum. The floors of the tribunals within the apses were raised and were faced with thin slabs of Purbeck marble, held in position by small iron clamps. In all probability these had inscriptions on them. The findspot distribution of those known around the building was plotted by Isserlin (1998), even if some of the locations are not quite as precisely known as the illustration suggests; Revell (2007) has discussed the inscriptions in the broader context of display within British fora; and a short article by Tracey (2004) examines the letter size and material of the inscriptions.

Several other inscriptions have drawn specific comment or discussion worth noting:

RIB 67, the famous Hercules of the Segontiaci inscription in 'black marble', now lost, was dug up by Stair at the north end of the Forum in 1744. Occasionally some sources get its location wrong and position it at the southern end, but the most detailed map of Stair's excavations showed it as coming from somewhere in the mid-northern range of the Forum (FIG. 3.3). Boon took this to be the apsidal room, which would be a fitting location (Taylor 1759; Boon 1974, 110). Ward's more sketchy map, however, placed it at the southern end of the Basilica, and various sources followed suit (Ward 1744–5, 1748; Wright and Fairholt 1845, 153). It is worth noting that within two feet of the spot indicated on Taylor's plan, a large bronze moulding was also discovered, which Boon later reinterpreted as a massive, 0.84 m-square, bronze-mounted statue base. This may have been associated with the inscription and presumed, now-missing statue of Hercules associated with *RIB* 67 which Stair said was found within two feet of the statue base (Ward 1748, 608; Chandler 1821, 16; Boon 1980). Black 'marble' (or another form of polished stone) is exceptionally rare as a medium for inscriptions in Britain, although some inscriptions are known on black limestone from the Low Countries, such as the altars from Colijnsplaat (NL) where a number of *negotiatores* made their last stop and dedications before sailing across to Britain (Stuart and Bogaers 2001). The Silchester inscription has not been traced since, together with the bronze frame found nearby, it was in the possession of the collector and British Museum trustee Matthew Duane, who died in 1785 according to Gough's edition of Camden (1789, 141); so a petrological analysis of it is not possible.

Because this was conveniently found in 1744 when there was an active debate over whether the town was called *Caer Segont* or *Calleva* (see p. 6), and also this was only three years before the first mention in a letter to Stukeley of the 'discovery' of the forged chronicle of Richard of Cirencester, which similarly created new road itineraries to consolidate the *Caer Segont* identification of the town, it is worth considering if the inscription itself was also a forgery. The chronicle certainly was years in the making, being the result of detailed research by Charles Bertram, and it probably existed by the time he started his correspondence with Stukeley in 1746. Alas we know little detail of Bertram's early life, though in the years he was conceiving the forgery he was in Copenhagen, having arrived there with his silk-dyer father as part of the retinue of George II's daughter come to marry Crown Prince Frederick of Denmark. It is difficult to see a direct link with Silchester, which might have been possible had the chronicle been the work of someone based in, say, Oxford. Also, if the inscription were a forgery, white marble or limestone would have been the more obvious material than wholly exceptional 'black marble'. While its material is unusual, and its finding was exceptionally fortuitous for those with a set toponymic agenda, there is no specific reason to doubt its authenticity.

RIB 69–71 were dedicatory inscriptions mentioning the Guild of Peregrini from the temple to Victory, Mars and Pax in Insula XXXV; the guild has been discussed, together with associated literature, by Frere and Fulford (2002).

RIB 87 was a memorial to Flavia Victorina; it was the earliest find recorded around 1577, being noted by Camden and Horsley (Camden 1610, 272; Horsley 1732, 332 pl. 75). The tombstone is discussed in its national context in Adams and Tobler (2007, 106).

BUILDING MATERIALS

STONE

The Antiquaries' excavations observed that the construction of the buildings was mainly flint rubble with brick quoins. Occasionally they mentioned the use of 'ironstone' and particularly Purbeck marble in carved stonework; otherwise they only tended to focus on lithologies and sources when it came to examining mosaics or describing marble fragments, assisted by the likes of Woodward, the Keeper of Geology at the British Museum (e.g. Fox and St John Hope 1890, 737–8, 746, 750).

As conservation work on the Town Wall began, analysis of its stonework also took place. Melville from the Geological Survey analysed Cotton's samples, identifying the bonding slabs as Oolite or Forest marble from anywhere along the Jurassic Zone, and the 'ironstone' from the gateway as from the local Bagshot Beds (Cotton 1947, 143). Collis' later work provided no further analyses of the Town Wall stone origins.

The carved stone from the Amphitheatre was looked at by Fulford (1989c, 136), while the rock-types in the arena walls were analysed by Sellwood (Fulford 1989c, 139–42), following up his work on the Town Wall (Sellwood in Fulford 1984, 224–30). Wooders analysed the lithologies of all the material from the Basilica, sourcing the majority, and particularly noting the increased emphasis on exotic and more distant stone when the Basilica was rebuilt in stone in Period 6 (though more limited than at Fishbourne or London). He also provided detailed descriptions of the carved stone, types of flooring and wall veneers (Fulford and Timby 2000, 83–100). The lithologies were similarly reviewed from Insula IX by Hayward and Allen (Fulford and Clarke 2011a, 204–19); not surprisingly they showed a narrower range of material than from the Basilica.

Beyond the excavation reports, other work on the geology of the site has included analysis of the Town Walls by Allen (2012b; 2013a; 2013b).

Putting the material into its national context, Hayward undertook a study focusing on the stone used for first-century funerary architecture in Southern Britain (Hayward 2009, 149–52, 188); while Blagg's analyses have been the foremost of those examining the Corinthian capitals and other decorative stonework from Silchester (Blagg 1977; 2002; Cunliffe and Fulford 1982, no. 193). Many of the original pen and ink with colourwash drawings by Fox of the architectural fragments from the Antiquaries' excavations are in the Society of Antiquaries' archives.

Williams' survey of South-East England sets the overall picture for the range of building materials used on Roman sites, frequently mentioning Silchester (Williams 1971).

TILES

Green reported on the tiles from the defences, showing that those from the South-East Gate and South Gate were of two very different sizes, which was interpreted as indicating they came from different sources or batches (Fulford 1984, 196–9). Brick and tile from the Amphitheatre largely appeared to be re-used debris to level the arena, while a large dump of mixed tiles and stone slates was found outside the North Gate, both described by Fulford and Timby (Fulford 1989c, 136; Fulford *et al.* 1997, 127–8). The sample from the Basilica was large enough to include specimens with a wide range of tally marks and other features. It was noticeable here that tiles appeared on the site even from Period 1 in the late first century B.C., and from Period 2 their numbers are sufficient to mean that it is hard to explain them away as being intrusive. Fulford

added to Timby's analysis with a description of the Neronian circular stamped tiles from the site, three from the Basilica and two found elsewhere; and Cram contributed a discussion of the foot-impressed tiles, building upon earlier work with Fulford (Fulford and Timby 2000, 116–26; Cram and Fulford 1979).

Within Insula IX the later Roman pit deposits were analysed, looking at the proportions of *imbrices*, *tegulae* and bricks, though much of the material was thought to be residual rather than from contemporary buildings. It was also observed that there were fewer stamps on the *tegulae* than from the Basilica site, but this could have been a function of sample size (Davies and Eckardt in Fulford *et al.* 2006, 135–8). Warry provided an extensive report of the mid-Roman material with much more comparative data, drawn from his thesis, and elaborated upon in other articles. Again it was difficult to make specific correlations between tile scatters and specific buildings. His work shows the potential of CBM from sites. In addition, Timby provided a note on ceramic ventilators or finials (Fulford and Clarke 2011a, 220–31; Warry 2006; 2010; 2012).

In addition to Warry's work, other national surveys which make use of Silchester material include a corpus of relief-patterned tiles (Betts *et al.* 1997), though few come from this site.

SLATES

Hexagonal roofing slates were common at Silchester, in Stonesfield Slate, Pennant Sandstone and Old Red Sandstone, though Alan identified a dump of half a tonne of Purbeck limestone tiles mixed in with ceramic tiles near the North Gate (Fulford *et al.* 1997). Wooders found them relatively under-represented from the Basilica (Fulford and Timby 2000, 99–100). In Insula IX, from the late Roman layers, there was a scatter of slate fragments across the site, but not in any particular concentrations or in the final potential demolition phases, suggesting much of it was residual and not from late Roman roofing (Shaffrey in Fulford *et al.* 2006, 133–4, 337–8). For the mid-Roman deposits a detailed lithology of the material present was provided by Hayward and Allen (Fulford and Clarke 2011a, 204–19); they showed a narrow range of material from the Basilica. Again there were far fewer slates than ceramic tiles, with a slight concentration in the south-east of the trench suggesting they related to a building there; the slates were mainly calcareous sandstones from Pusey Flags and Stonesfield in south and west Oxfordshire respectively. The early material from the excavations awaits publication; however analysis of all the building stone throughout the phases of the building of the main diagonal House IX.I has been carried out (Hayward in Clarke *et al.* 2007).

Like ceramic tiles, some slates had markings on them; one had a rough sketch of a *bos longifrons* (Le Schonix 1894).

MOSAICS

References to descriptions and interpretations of mosaics have been included in the 'Mapping the Interior' section. Fox provided excellent watercolours of the Antiquaries' finds and the recent corpus by Neal and Cosh (Neal and Cosh 2009) comprehensively summates existing knowledge, while several other works view the Silchester mosaics in their regional context (Johnston 1977; Johnson 1993; Neal 1981). Specific work on the lithology of tesserae includes Allen and Fulford (Allen and Fulford 2004; Fulford and Clarke 2011a, 211–14; Allen 2013b).

WALL-PLASTER

Throughout the Antiquaries' excavations wall-plaster fragments were occasionally found and where evident, schema were commented upon (St John Hope and Fox 1896, 248–52; 1899a; Fox *et al.* 1901, 241; St John Hope 1902, 19; 1906, 154), as was possible evidence for plastered ceilings (Fox and St John Hope 1894, 217; St John Hope 1907a, 442–3). The remains from within House XIV.1 received particular attention from Ling (1984), and fragments depicting Cupid have been mentioned in the context of national parallels by Smith (1977, 113, no. 24).

Mary Bird analysed the material from the Basilica, suggesting a largely red and white schema

in the main hall with a richly decorated northern apse where the over-life-sized bronze statue of the emperor probably once stood (Fulford and Timby 2000, 100–15).

OTHER WORKED STONE

JET AND SHALE

Objects of jet and shale from Silchester pre-dating the Basilica excavation were examined by Lawson (1972; 1976); alas little material had contextual detail. Since this survey additional objects include a shale bracelet from the South Gate (Fulford 1984, 116), and a slightly wider range of material from the Basilica (Boon in Fulford and Timby 2000, 379–81) and Insula IX (Crummy in Fulford *et al.* 2006, 121–32; Fulford and Clarke 2011a, 365–90).

The assemblage predominantly includes beads and armlets; there are also three waste cores from the production of shale armlets, which made Boon wonder if shale objects were being manufactured on site. Lawson doubted this as there was no other evidence; however, a shale fragment which could have been wall veneer or possibly an off-cut from shale-working did come from the recent Insula IX excavations (Boon 1974, 284; Lawson 1976, 256; Fulford *et al.* 2006, 127). The extensive collection of dishes, platters and trays is noticeable both from the Antiquaries' excavations and the Basilica. Other material includes table tops and legs, couch legs (Liversidge 1968, 154), and spinning equipment.

The burnt shale from Early Roman Silchester used in mosaics has been examined in the context of the broader Purbeck industries by Allen *et al.* (2007). A recent thesis has examined the material nationally (Denford 2000; 1995).

AMBER

The limited Silchester material is brought together in a Northern European corpus by Morris (2010, 173).

QUERNSTONES, MILLSTONES AND WHETSTONES

From the earlier excavations Shaffrey has reviewed 79 quernstones in Reading Museum, though it is suspected many were never retained as some described in publications cannot be matched with specimens (Shaffrey 2003). Fulford, Bailey, Peacock and Sellwood identified the finds from the defences (Fulford 1984, 118–20) and the Amphitheatre (Fulford 1989c, 133–6); Williams identified five fragments from the UoRSP fieldwalking around the town (Ford and Hopkins 2011, 26–8); Wooders identified those from the Basilica (Fulford and Timby 2000, 337–57); and Shaffrey and Hayward inspected those from Insula IX (Fulford *et al.* 2006, 133–4; Fulford and Clarke 2011a, 209–10, 215–19).

From her overall survey Shaffrey found more variety at Silchester than many sites, and identified a chronological shift from the Late Iron Age to the mid-Roman period from Lodsworth (57 km to the south) to Old Red Sandstone (120 km to the west in south Wales). Lodsworth production was surveyed by Peacock (1987).

Relating to mill and quernstones, Manning reinterpreted as a pivot in an animal-driven mill a piece of iron from the 1890 iron hoard (Evans 1894; Manning 1964); as a result House XVIII.3 was interpreted as a possible mill-house.

References to whetstones can often be found in the quernstone reports cited above, but a full review with detailed lithology of 87 specimens from the site can be found in Allen (2014).

INTAGLIOS, GEMS AND CAMEOS

Boon did a lot of early work on the Silchester gem collection, but left much of it in manuscript form unpublished, although he drew from this knowledge in his syntheses (Boon 1974, 68, 142, 162–3, 171–2, 309, 336; Henig 1970, 259). Since then Henig has dominated studies. A description of 36

gemstones can be found in his corpus (Henig 1974) and other works (Henig 1972, 211; 1995; Greenaway and Henig 1975). Original reports referencing the early finds include Anon. 1787; Fairholt 1871, 84; Watkin 1876, 263; Fox 1895, 468–9; St John Hope and Fox 1900, 111; Fox and St John Hope 1901, 250; St John Hope 1909a, 485. Subsequently more have been found including eight from Insula IX by the end of the 2010 season (Crummy 2012, 117).

ALABASTER

A portion of an oil bottle or *alabastron*, possibly of Egyptian alabaster, was found close to the temple in Insula VII (Fox and St John Hope 1894, 209). These are very unusual, though parallels from Caerwent and Trier were known to Boon (1957, 123; 1974, 158; 1981b). Given the lack of finds from bathhouses, Boon suspected them of being associated with rituals in the temple (Boon 1981b).

GLASS

Glass often called for no special remarks in Joyce's or the Antiquaries' reports, but occasionally more detail was recorded if something special was found, such as the following: a pillared vessel of clear glass, a square bottle and a bowl of marbled glass (sapphire blue colour streaked with white and with yellow spots) (St John Hope and Fox 1896, 231–2, 252); more variegated glass, beads and 'a square panel of rare mosaic glass of a deep blue with pink flowers and yellow leaves' (St John Hope 1897a, 430); millefiori glass and a pale greenish-blue globular vase (St John Hope and Fox 1900, 108, 111, fig. 7); more millefiori glass (Fox and St John Hope 1901, 250); engraved glass with a fish and a palm branch on it (St John Hope 1902, 32); more sapphire blue glass and a nearly whole flanged bowl of clear glass (St John Hope 1906, 163); and a twisted glass rod from a pit outside the North Gate (St John Hope and Stephenson 1910, 326).

Window glass was reported from only Insulae I, II, III and the Public Baths (Fox and St John Hope 1890, 740; Fox 1892, 284; St John Hope and Fox 1896; St John Hope and Fox 1905a, 361). However the general lack of reporting of window glass after the first few seasons probably suggests its subsequent lack of novelty rather than marking a real distribution as it has been found in all the subsequent excavations in the interior.

Boon suggested that he was writing an account of all the glass from the site from 1864 to the late 1960s for Reading Museum; but it was not published, although it may still exist in an archive (Boon 1969, 34 n. 10).

Subsequently excavation glass has been written up as follows: the Basilica by Allen with Price (Fulford and Timby 2000, 312–21); the Amphitheatre by Allen and Timby (Fulford 1989c, 125–6); the defences by Price (Fulford 1984, 116–18); and Insula IX by Allen (Fulford *et al.* 2006, 116–19; Fulford and Clarke 2011a, 133–42). Particular work on glass beads includes that by Fulford (1989c, 126) from the Amphitheatre and Allen and Boon from the Basilica (Fulford and Timby 2000, 321–2). Of these assemblages, that from the Basilica had a surprisingly high proportion of unguent bottles from the timber basilica Period 5. From Insula IX the work so far has shown a steady decrease in the quantity of glass through from Period 3 to 4 to the Later Roman period.

METALWORK

BROOCHES

Mackreth's brooch corpus contained 250 brooches, including those in Reading Museum from the Antiquaries' excavations, and those of Cotton's, Boon's, Collis' and the Basilica excavations, and a few other random finds (Mackreth 2011) (original reports: Cotton 1947, 143–5; Boon 1969, 47–9; Corney in Fulford 1989c, 127; and Fulford and Timby 2000, 322–38). Additional fibulae have been found in the Insula IX excavations. Although Crummy has been publishing the material by group rather than artefact type, the appendices provide outline details of all (Fulford *et al.* 2006, 121–32; Fulford and Clarke 2011a, 100–32).

Crummy compared the brooch assemblages from Insula IX and those in Reading Museum with Plouviez's analysis of London, showing that Silchester tended to have more Nauheim derivative, Langton Down and Colchester types than the capital, betraying its Iron Age origins. The Nauheim concentration is not uncommon in central southern England, notably from Winchester and Fishbourne (Crummy 2012). This gives a regionally distinctive flavour to the brooch assemblages, which may relate to long-term contacts or networks. Some comparative data for different *oppida* can be found in Pitts (2010).

The Silchester collection was also drawn on for the analyses of penannular brooches by Fowler (1963) and enamelled brooches by Bateson (1981, 37, 43); in addition, a number of articles have discussed an embossed 'Celtic' triskele design on one particular disc brooch (Boon 1959, 85, n. 16; Megaw and Merrifield 1969; Laing 2005, 147–8).

COPPER-ALLOY OBJECTS

Since Cotton, all the major excavations have had comprehensive small finds reports including copper-alloy object reports: Cotton (1947, 145–7); Boon (1969, 50); the defences by Corney (Fulford 1984, 111–12); the Amphitheatre by Fulford (1989c, 128); the Basilica by Boon (Fulford and Timby 2000, 338–57); Insula IX, partly reported so far, by Crummy (Fulford *et al.* 2006, 121–32; Fulford and Clarke 2011a, 100–32). These originals are best scanned for specific object searches. However, various classes of bronze object have been picked up in the broader literature or where there are some specific pre-Cotton references to them. They are referred to here:

Surgical instruments: condée-type forceps were identified (Liversidge 1968, 341–2; Boon 1974, 137, fig. 16.7; Jackson and Leahy 1990).

Ex-voto miniatures: a diminutive bronze axe was dug up in 1821 at the East Gate, at which point it was reported seven others had also been in the collection of John Stair, by that time held by his daughter-in-law (Bartlett 1854, 57). Close by, the temples in Insula XXX produced two more (St John Hope 1903a, 422; Boon 1974, 156, 332). From Insula IX has also come an assemblage Crummy would associate with a possible nearby temple, including a miniature axe along with a halved silver wheel amulet and miniature brooches (Crummy 2012, 117–19). Kiernan provides a full corpus of the 12 miniature axes known amongst the Silchester finds; various studies on these include: Green 1976, 195–6; Fauduet 1983, fig. 3b; Robinson 1995; Kiernan 2009, 146, 175, 229–30.

Amulets: these include a find from 1896 of a bull biting on a branch which terminates in a phallus on one side, and a clenched fist making the *fica* gesture on the other (St John Hope 1897a, 429; Boon 1974, 170; Read *et al.* 1986).

Knives, razors and wax spatulae: one folding-knife with a little dog on it from earlier excavations was published by Boon (1991, fig. 1g), while another with a pair of copulating dogs came from Insula IX (Fulford and Clarke 2011a, 110–13; Eckardt and Crummy 2002). References to razors include the following: Boon 1991, 27, fig. 3g; 1974, 133, fig. 16.6; Fulford 1985d; however some of these have been reinterpreted as spatulae for smoothing over pages on wax tablets (Crummy 2002; 2003).

Toilet sets and instruments: the Silchester material is set in a national context in work by Eckardt and Crummy: Eckardt and Crummy 2004 (toilet instruments); Crummy 2001 (nail-cleaners); Crummy 2012, 113–14 (toilet instruments from Insula IX); and Eckardt and Crummy 2008, 167–76 (a broad survey of equipment in Britain with toilet sets and much more).

Seal-boxes: the Antiquaries' excavation reports only mentioned one seal-box (St John Hope 1909a, 480), as do the national surveys of seal-boxes by Tongue (2004), Andrews (2012, 144) and Bateson (1981, 48, 58). An additional find from Insula IX appears in O'Riordan (2008).

Steelyards and steelyard weights: as well as those from the Antiquaries' excavations (see finds from Insulae XVII or XVIII and Insulae XIX or XX above), another bust-weight from the collection of the tenant farmer Mr Barton in the mid-nineteenth century is illustrated (Anon. 1846a, 147).

Late Roman spurs: a find from Silchester written up by Boon (Rutland and Greenaway

1969, 38–9) was included in a survey by Shortt (1959) which has been updated by Worrell (2004) showing a central-southern British cluster of these.

Lighting equipment: a survey of 65 lamps putting them into a national context can be found in Eckardt (2002, 416–18); a particular candlestick has also received additional attention (Eckardt 2000; O'Riordan 2008).

Single object discussions with parallels: a silhouette horse from the Basilica area (Jope 2000, 144, 268; Toynbee 1964, 125); a jug handle (Crummy 2006); tubular ferrules (Williams 2005a); a bronze appliqué of a woman, possibly from a jewel-box (Read and Henig 1985); two square plaques of embossed thin copper alloy (Jope 2000, 284); a panel from a rare enamelled hexagonal bronze vessel (Henry 1933, 144; Jope 1955, 43, fig. 1.6; 2000, 304; Cool 1997; Eckardt 2014, 198); a perfume box of unknown date (Bish-Webb 1859); and styli from Insula IX (Crummy 2012, 111).

Silchester material has also been worked into national corpora in the following categories: strap-ends (Simpson 1976, nos 37, 49–52); various objects relating to Christianity (Mawer 1995); mirrors (Lloyd-Morgan 1977, 249; though add the Latchmere Green find in Fulford and Creighton 1998, and the Mortimer Hill Farm find in Taylor 2011).

MILITARY METALWORK

Boon compiled a number of lists of military-related objects from the site (Boon 1969, 44–5 and fig. 5; 2000). He elaborated further on the brass rosette and hinges from a first-century segmental cuirass from Insula XXIII Pit X (Boon 1974, 67). A reassessment of these and an analysis of the Insula IX finds has been undertaken by Rimmell (2013).

JEWELLERY

Jewellery from Silchester includes: a gold filigree ring set with a garnet (Liversidge 1968, 144); an over-large inscribed gold ring found in 1785 (Anon. 1787), which has been speculated to be the ring lost and mentioned in a curse tablet found in Lydney (Haverfield 1920, 283); and four earrings (Allason-Jones 1989, nos 48–60, 477; Liversidge 1968, 140; Boon 1957, 112; Johns 1996, 130). For inscriptions on rings, see *RIB* II 2422.14, 25 and 42 (Raybould 1999, 252, 354).

PEWTER

Many fragments of vessels came from the Antiquaries' excavations. The following were reported at the time: a vessel with a hole in the bottom; two pewter cups near the 'church'; a jug from the pit with the ogham stone; a vase handle terminating in a lion's head; a jug from Insula XVIII; another jug with ornamental handle from Pit XXVII.VI; and a dish and a bucket from Pit XXII.VIII (Fox and St John Hope 1890, 743; 1893a, 564; 1894, 238; Fox 1895, 441, 471; St John Hope and Fox 1899a, 241; St John Hope 1902, 32). The later excavations have recovered a vessel base from Insula IX (Fulford *et al.* 2006, 127).

Ten fragments from six moulds were discovered in 1892 in the Forum, but not reported that year. The full publication of them was by Blagg and Read (1977), but there are other references to them, such as original archive drawings (Fox ND, Box 4, sheet 64), early parallels recognised in material from Bath (Bush 1909, 38) and Langton (Goodall 1972), and Boon's work (Boon 1974, 274, fig. 40). A new mould fragment in Bath stone was found in the Basilica excavations (Wooders in Fulford and Timby 2000, 391).

While pewter vessels came from the town, none of them related to these moulds, and the nature of the excavation means there is no dating evidence associated with them. Beagrie and Lee discussed the material within the context of the pewter industry in Britain as a whole (Beagrie 1989, 187; Lee 2009). Fulford mentioned the piercing of pewter vessels in a discussion of ritual (Fulford 2001, 201–2), and Raybould noted the marking of ownership on a pewter vessel in a broader discussion on graffiti (Raybould 1999, 351; *RIB* II 2417.31).

LEAD

Lead sheet was noted by the Antiquaries. A contemporary account observed that 'small pieces of lead sheet pierced with nail holes have recently been found at Silchester' (Cox 1895, 36), suggesting lead roofing in places; however the final reports never mentioned it, and this could have been what the excavators regarded as sheeting for cisterns (Fox and St John Hope 1894, 223).

Joyce and the Antiquaries, however, certainly collected lead finds. Those from the Forum, near the church, received special mention as they included a Chi-Rho monogram, inscribed [P]MC*: P(rovincia) M(axima) C(aesariensis)* (Joyce 1881b, 363; Boon 1974, 184, fig. 24.7; Frere *et al.* 1989, 345); for a wider contextual discussion see Pearce (2008, 201).

Lead appears in later reports more systematically. Boon reported on the material from the Basilica (Fulford and Timby 2000, 357–9) and finds from Insula IX are gradually being published including a lead weight and a re-frozen lead puddle (Fulford *et al.* 2006, 127).

A lead curse tablet from the Wellington Collection found before 1901, curiously labelled 'Silchester lead tablet no. 16 …' as if there are or were at least 15 more originally, was published recently (Chapman *et al.* 2009, 323–4).

IRON

It was the two large iron-tool hoards of 1890 and 1900 that drew ironwork to the attention of the Antiquaries (Fox and St John Hope 1890, 742; Evans 1894; May 1916b, 129; Manning 1972, 236; Hingley 2006, 250; Jope 2000, 216). Some of the individual finds within these led to later debate. There was discussion on whether some objects were tent-pegs or portable anvils for scythe-sharpening or other types of metalwork (Jones 1889–91; Allen 1894), and these might be the finds that were reinterpreted as shoe-making anvils by Liversidge, though she provided no reference to check (Liversidge 1968, 179). Both hoards contained ploughs, and the coulter was brought into discussions about Roman ability to cultivate heavier soils (Hawkes 1935; Payne 1947, 95). Adzes and their possible use in stone masonry have also been examined (Evans 1894, 148, fig. 13; Blagg 1976, 157–9), while other agricultural implements were discussed by Rees (1979). Finally the iron handcuffs or slave-shackles from the site were investigated as part of a national survey by Thompson (1993, 107–10, 145; St John Hope and Fox 1899a, 241).

Subsequently, finds from the modern excavations have been analysed by Cotton (Cotton 1947, 147), Boon (Boon 1969, 50–1), the Defences by Corney (Fulford 1984, 112–15), the Basilica and Amphitheatre by Richards (Fulford 1989c, 129–31; Fulford and Timby 2000, 360–79), and Insula IX by Crummy (Fulford *et al.* 2006, 121–32).

Particular ironwork which has been commented upon in individual articles includes a linch pin found below the gravel road in the 1955 excavations (Boon 1956), and unsurprisingly a discussion suggesting that none of the horse-shoes recovered from the site were actually Roman (Ward 1937).

METAL-WORKING RESIDUES AND SLAG

The Antiquaries found evidence for a very specific residue, including lead, which could have been from smelting together lead and copper ores for the extraction of copper (Gowland 1900), but it could also have been from 'melting together argentiferous lead and argentiferous copper with a view to desilverise the copper. Cakes or discs of such an alloy would be placed on a sloping hearth and heated to a temperature well above the melting point of lead with a view to sweat out the lead from the copper, which could be left behind as a sponge. The lead would carry away the silver it originally contains, as well as any silver present in the copper. Elaborate accounts of this process were published in the sixteenth century, but it is interesting to find indications of its use in later Roman times …' (Cox 1895, 37). As a technology for removing trace silver from useless third-century billon coin, this is very interesting to observe. Gowland and Professor W. Roberts-Austin from the Royal College of Mines and the Mint favoured smelting, while the Revd J. Charles Fox favoured silver extraction from copper alloys.

Cotton found a crucible fragment from Site C2, but there was no reported examination of it (Cotton 1947, 160). Boon's excavations came across a range of metallurgical debris from Trench B (inside the town across the Inner Earthwork Ditch), and a smaller amount in Trench A. There were, however, no specific reports analysing the material (Boon 1969, 6, 51–2).

Twentieth-century analysis revived when metal-working residues and slags from the South Gate, the south-west angle of the defences and Manor Farm were examined by Bayley (Fulford 1984, 120–1). Slag from the Amphitheatre was examined by Richards (Fulford 1989c, 131) and metallurgical debris from the Basilica by Northover and Palk with Henderson and Meeks (Fulford and Timby 2000, 395–423), with some of the crucibles analysed by Williams (1993b).

The small finds from Insula IX were indicative of metal-working, with evidence for casting copper alloy from a strap-hinge (as used on first-century gaming-boards and box lids) with flashings remaining, and two miscastings: a nail-cleaner and a one-piece brooch (Crummy 2012, 112). Beyond that, a very detailed picture is emerging of metal- and particularly iron-working within the insula from the work of Tootel and Allen. As well as the usual crucible and slag analysis, furnace bottoms and microscopic slags and hammerscale are being examined. The insula has been producing less slag than from the Basilica excavation, but the work is revealing the small-scale and episodic nature of production in the Roman town, with little activity in the mid-Roman period and slightly more in the later phases. The early material awaits publication (Allen and Tootel in Fulford *et al.* 2006, 145–63; Fulford and Clarke 2011a, 232–40; Allen 2012a).

The material from the Basilica and the later deposits in Insula IX is discussed in a wider context by Rogers (2011, 130–48).

WORKED BONE AND ANTLER

Worked bone and antler has been reported on by Boon from his own excavations and from the Basilica (Boon 1969, 51; Fulford and Timby 2000, 382–4), by Corney from the Defences (Fulford 1984, 115–16) and Crummy from Insula IX (Fulford *et al.* 2006, 121–32). 530 bone pins have been recorded from the site between 1890 and 1977; even so, Crummy has observed that there is a curious preponderance of metal as opposed to bone hairpins in the overall assemblage, and in the more carefully excavated Insula IX group, in comparison to several other cities (Crummy 2012, 110–11).

Amongst specific finds picked up on elsewhere was an unpublished bone lamella used as a bone tag, similar to inscribed *tesserae nummulariae* thought by some to be used to tie and seal bags of coin (Beal 1983; Riddler 1998); two bone stoppers (Williams 2005b); a note of an inscription on a bone roundel (Raybould 1999, 532–3; *RIB* II 2440.70 and 97); and a discussion of a Late Roman antler comb amongst others nationally (Boon 1974, fig.16.1; Cooke 2000).

PART III: THE DEFENCES: EVIDENCE AND INTERPRETATION

These three chapters review the evidence for the defences around the town: the Town Wall, the Inner and Outer Earthworks and the linear earthworks in the vicinity of the town. FIG. 9.3 gives an overview of the evidence for the earthworks close to the town, and the names given to various sections, while FIG. 10.1 shows the linears further afield. Each chapter situates each set of defences within a historiography showing changing perceptions; they then cite the evidence and finally draw conclusions from these.

CHAPTER 8

THE TOWN WALL AND DITCH

EARLIER PERCEPTIONS

The Town Wall, 2.4 km long, now lies bare consolidated with modern mortar, though until relatively recently it was all enveloped with gnarled oaks and hawthorn bushes. These first started to be cleared around the church in the mid-nineteenth century, with an engraving showing the newly revealed Wall in its resplendent glory (Wright and Fairholt 1845); since then all the vegetation has gradually been removed.

From early on the irregular polygonal shape of Silchester meant that many antiquarians imagined the origins of the Town Wall to lie in a much earlier 'British bulwark'; playing-card-shaped towns were certainly Romans foundations, but polygonal towns might be British cities which the Romans had occupied (Leman 1809, 103; Kempe 1833, 123). As Maclauchlan observed on his 1850 plan: 'Though this exterior line [of the Town Wall] conforms to the shape of the ground in some measure, it does not seem to have done so altogether, and, from its irregular outline, it seems probable that it existed before the Wall was built; and, from its general conformity, that there was a rampart where the wall now is before the latter was built' (Maclauchlan 1851, 231). This notion did not survive more than half-way into the Antiquaries' series of excavations. As they were digging a section in front of the newly discovered Lesser West Gate they noticed that the Rampart Ditch cut several earlier features. One of these pits contained clearly Roman samian ware, so the idea of the polygonal Wall being built upon earlier Celtic earthworks was rejected (St John Hope 1897a, 428). The narrative then changed to thinking of Celtic Silchester as having existed within the much larger Outer Earthworks, with the Roman defences marking a contraction of the town in the later second century (St John Hope and Stephenson 1910, 321).

Throughout the twentieth century most of the interventions along the Wall have related to investigative work as the Wall has been cleared of trees and conserved. In 1937 the fifth Duke of Wellington passed over a stretch on the northern Wall into public ownership; as it was cleared, Cotton dug a number of trenches. Collis' excavations similarly followed upon a southern length of Wall coming into guardianship control in 1966. The trees and blackthorn bushes were cleared

off and a damage assessment made alongside a search for dating evidence. The rationale for Fulford's interventions was similar in the mid-1970s and again in the 1990s. Gradually their work has refined the dating evidence of the defences.

THE EVIDENCE

The detailed evidence for the Town Wall is provided, first running round the gates in sequence, clockwise, then all of the other interventions along the line of the Wall and Ditch. The locations of the excavations are shown in FIG. 8.1.

THE EAST GATE

HISTORY OF INTERVENTIONS

1821 Area three feet square excavated (Bartlett 1854).
1872 Excavation of East Gate (Joyce 1881b, 345–8).
1908 Excavation of East Gate (St John Hope 1909a, 474–6).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Lectures (Joyce 1876a, 55–6; St John Hope 1909c); note (Anon. 1908a, 211).

DESCRIPTION

The location of the East Gate, obscured by the modern buildings in the area, remained contentious for many years. Emerging knowledge of the precise location of the main east–west road had caused consternation since Stair's first plan of the site because to the east its projected path was blocked by an intact section of Wall rather than the expected gate to London. Maclauchlan had tried to solve the riddle by imagining a parallel road came in through a more southerly gate, under where the Manor Farm was situated, leading directly into the Forum (Maclauchlan 1851). Despite an early excavation recorded in this area in 1821, which revealed 'ashes and fragments of bones, deer's horns etc.' and a 'diminutive bronze axe' at about 0.8 m depth (Bartlett 1854), as well as two coins of Maximian and a British B (Boon in Fulford and Timby 2000, 163), the actual location of the gate was only definitively established after fortuitous investigative work by Joyce. In 1872 he arranged for the Ordnance Department's surveyor to project the line of a known stretch of the Roman road east of the town back west to the Wall. This line actually intersected the Wall just south of the currently known location of the gate, but close enough to a section where the Wall was broken away and a modern trackway entered the town to encourage Joyce that the gate might be there. A rapid trench revealed it was indeed there, albeit at a curious angle to the Roman street-grid (Joyce 1881b). This left the question unanswered as to how this new East Gate at an angle linked to the orthogonal layout of the streets (Joyce 1876a, 55–6).
Details: Joyce's excavation provided a full plan, while the Antiquaries largely confirmed the earlier account.
Destination: London.
Gateway: a double carriageway, comprising two parallel passages with arches 3.66 m wide and passages 4.88 m long. There were guardrooms, and it was similar in design to the West Gate, but fractionally more substantial.
Other information: the gate only survived at foundation level with a modern service drain already cutting through it by Joyce's time. Nothing was ascertained of the street metalling or any possible blocking; nor did any excavations of the ditch in front of the gate take place to investigate whether there was a bridge or causeway.

THE SOUTH-EAST GATE aka THE 'SLUICE GATE'

HISTORY OF INTERVENTIONS

1892 Excavated, reported with results from 1893 (Fox and St John Hope 1894, 230).
1976 Re-excavated (Fulford 1984).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

An interim note (Frere *et al.* 1977, 418).

DESCRIPTION

The Antiquaries investigated a drain which came out of the *Mansio* bathhouse heading south-east; this ran towards the Town Wall and in 1892 they excavated where the line of the drain and the Wall intersected and discovered what they called the 'Sluice Gate'. Boon (1974, 105) questioned this interpretation and Fulford's re-excavation in 1976 concluded the concept of the Sluice Gate was a misinterpretation and it was simply for pedestrian access with a drain beneath. The geophysics revealed that it is located where the earlier Inner Defences ditch passed under the later Town Wall. The Inner Defences ditch carried the wastewater from the Public Baths and probably also drained a lot of the other conduits from the town, so the drainage function of the gate was probably fundamental to its positioning. The construction of the Wall over this deep infilled ditch probably also explains why the Antiquaries found wooden piles under the construction here (Fox and St John Hope 1894, 321).

Prior occupation: Fulford observed no evidence in his re-excavation for occupation on the site prior to the Wall foundations being constructed, though the geophysical results suggested it was built over the infilled Inner Earthwork.

Rampart: the earthwork had been built on marshy ground onto which branches of oak, birch and alder overlain by brushwood of hazel, oak and willow or poplar had been laid to stabilise the foundations of the earthen rampart.

Destination: the exit provides not only water egress, but also easy pedestrian or single horse access from the *Mansio* and the south-east of the town out to the fields and the large rectangular building enclosure in LP 3000 (see p. 254).

Gateway: a single entrance *c.* 1.2 m wide with a central drain running beneath. The gate was modified at various stages: first it was an all-timber structure; then it became a timber gate with wooden passage walls and masonry infill; then brick piers and masonry passage walls were added; finally it was incorporated to become a gate in the stone Town Wall which was itself built on 120 mm oak piles (*terminus post quem* A.D. 280–90).

Ditches: the edge of the wide ditch that accompanied the Town Wall was seen in plan by Fulford: 'the inner edge of the ditch was 4.0–4.5 m out from the Town Wall, appearing to cut the northern edge of the inner rampart ditch' (Fulford 1984, 70).

Blocking: at some point the gateway was blocked; contexts where potential dating evidence may have existed were removed in the Antiquaries' excavations.

Medieval evidence: there was some twelfth- to fourteenth-century pottery in the ploughsoil.

THE SOUTH GATE

HISTORY OF INTERVENTIONS

1872 Original excavation (Joyce 1881b, 348–9); Joyce unpublished journals.
1890 Re-excavation (Fox and St John Hope 1890, 752–4).
1909 Exploration of ditches outside the gate (St John Hope and Stephenson 1910, 322).
1957–8 Trenches H1–3 and J, south of the gate (Boon 1969, 10–12).
1974–5 Re-excavation (Fulford 1984, 25, 27–30, 35–7, 42–51, 59–62, 66–7, 74–5).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Lectures (Joyce 1876a; Anon. 1891b); a visit (Anon. 1890–3a); an interim note (Goodburn *et al.* 1976, 368–71).

DESCRIPTION

Prior occupation: Fulford's excavation revealed an occupation layer (7) above natural subsoil with Tiberio-Claudian samian and a bowl in a LIA saucepan-pot style, the latest material being Neronian to early Flavian.
Destination: following on from Maclauchlan (1851), Joyce considered the South Gate to be the road exiting towards both Winchester and Old Sarum (Joyce 1881b, 345). It was only later, particularly after Karslake's excavation on the Outer Earthwork, that the Lesser West Gate came to be seen as the main exit to Old Sarum. See discussion in this volume (pp. 401–3).
Rampart: the gate pre-dated the rampart.
Gateway: a single carriageway 3.5 m wide.
Ditches: four sections were run north–south across the ditches: three by the Antiquaries and Boon's Trench J. All three of the Antiquaries' trenches show the earlier Rampart Ditch, but identification of the Outer Town Wall Ditch in them is more problematic. It might appear in Section AB, but not in CD and EF (FIG. 8.2). Since the latter two flanked the roadway it may be that there was always a causeway at this point. Boon's Trench J is highly problematic. It starts further out from the Town Wall, and the features which he identified as the Rampart Ditch and the Wall Ditch were significantly further away from the Wall than those in any other section. It is also frustrating that the most significant feature, namely the Inner Earthwork, was not actually dug.
Street metalling and drainage: six parallel pre-Flavian north–south gullies were found on the east side of the road (Gullies 1–6). Fulford considered these to be early drainage prior to the first metalled surface which had a rumble-drain down the middle. Evidence for the metalling of the street came from this excavation, where it sealed an assemblage comprising imitation butt-beaker, Silchester ware and a large fragment of Roman tile, otherwise not known in the town until the Neronian period. All of this supports a Neronian or early Flavian period for this road. However, a well with a Flavian fill hard up against the street made Fulford wonder if a later Flavian date was not more likely, as Cotton had thought (Fulford 1984, 37).
Dumped decorated stone: a drum of a column (0.85 m diameter, 0.43 m high) was found in the entrance, thought to be from a nearby temple. Two fragments of Doric capitals were also found, one belonging to a column 0.76 m in diameter at the top; the two capitals had different mouldings. Another stone was a half-capital of the Doric order, having stood against a building, 0.65 m diameter. These all probably related to discard during the robbing of the Forum-Basilica rather than the blocking of the gate as the deposit was not consolidated.

THE LESSER WEST GATE

HISTORY OF INTERVENTIONS

1896 Discovered and excavated following a pipeline (St John Hope 1897a, 424–6).

DESCRIPTION

The discovery of this gate during attempts to see where an iron-collared wooden pipe leading to or from Insula III entered the town was unexpected (see p. 396).
Destination: while only a minor narrow gateway, it later came to be thought of as the main road to Old Sarum, and it is represented as such on current OS maps (see p. 401).
Gateway: this was originally an archway, 3.55 m wide and 0.99 m deep, set in the outer face of the Wall, which was 2.93 m thick here, with an inner arch 2.10 m deep and 3.62 m wide towards

the town. An iron shoe for one of the gate pivots was found. There appeared to be no causeway in front of the gate, so a wooden bridge was considered likely. At some point the gateway was narrowed to only 2.13 m wide. The partial blocking included re-used architectural fragments from another building, a phenomenon also observed in the North, South and West Gates.
Street metalling: over time, or in one phase, the roadway was raised by 1.2–1.5 m, with the street level on the interior being raised to match this.

THE WEST GATE

HISTORY OF INTERVENTIONS

1890 Gateway (Fox and St John Hope 1890, 754–7).
1909 Trenches in front of gate (St John Hope and Stephenson 1910).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

An article (St John Hope 1890a); a lecture (Anon. 1891b); a note (Fox 1899b, 81); a reconstruction drawing (Liversidge 1968, 64).

DESCRIPTION

The gate was excavated in the Antiquaries' first and last seasons. It is to be noted that the two plans of the gateway they published are slightly inconsistent in relation to the curvature of the adjacent Town Wall.
Destination: the gate clearly leads west, but the actual line of the road was not clear for some time. According to the Antonine Itineraries, *Iter* XIII and *Iter* XIV both suggest a road direct from *Calleva* to *Spinis* (presumed to be modern Woodspeen) which is west-north-west; this is also the direction of the only archaeologically attested road. However, a road due west has been imagined in the past (see p. 403).
Gateway: a double carriageway, comprising two parallel passages with arches 3.66 m wide and 3.66 m long. There were guardrooms (as at the East Gate, but not the North or South). The guardrooms had painted wall-plaster. Amongst other uses, the Antiquaries imagined the inner chambers of the guardrooms could be used as gaols. Curiously, circular hypocaust tiles were found in the rubble in the gateway, though there was no hypocaust in either of the guardrooms.
Ditches: the approach to the West Gate could not be investigated owing to the modern droveway, but trenches cut at the sides showed the ditches to be continuous, suggesting a bridge across was likely. From the main West Gate to the Lesser West Gate there were appearances of a road having been constructed over the filled-in V-shaped ditch (St John Hope and Stephenson 1910, 323).
Blocking: at some point the southern carriageway was blocked. The fill included the drum of a double column from a substantial building and a large piece of Corinthian capital; see Blagg (2002, 22–5, 256–60).
Notable finds: fragments of human skull (Fox and St John Hope 1890, 757).

THE NORTH GATE

HISTORY OF INTERVENTIONS

1732 *RIB* 68 discovered just west of the gate (Wright and Fairholt 1845).
1872 Joyce (as stated by Fox and St John Hope, but not published at the time).
1890 Excavation of the gate (Fox and St John Hope 1890, 750–2).
1909 The ditches north of the gate (St John Hope and Stephenson 1910, 319).
1991 Re-excavation (Fulford *et al.* 1997, 88–142).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

A lecture (Anon. 1891b); an interim note (Frere *et al.* 1992, 302–4; Fulford 1992); a visit (Anon. 1890–3a).

SUMMARY

The inscription, *RIB* 68, was found in the Wall just west of the North Gate as a crab tree was being grubbed away at the time John Stair was active on the site. The scale of Joyce's work is unpublished; but the 1890 season saw the recovery of an outline of the main footings of the gate. Knowledge was extended in 1909 with an enlargement of the area investigated, including a section across both outer ditches. Re-excavation in 1991 ahead of English Heritage conservation work provided a comprehensive reinterpretation of the sequence, though only the Inner Ditch was partially re-excavated.

DESCRIPTION

Destination: the road to Dorchester-on-Thames.
Street metalling: the earliest street surface (115) was 'an evenly laid, hard-packed surface of small rounded gravel, *c.* 4 cm in diameter', with material from it dating to the late first century. It was flanked by a roadside gully (F42/F51) dated to the later first to early second century A.D.
Ditches: Fulford only excavated the Inner Ditch (F16 and F46), and not to the bottom. After a period of gradual silting, the ditch was deliberately backfilled in the third century and sealed by a metalled road surface (433) cut by a drain. The Inner Ditch was subsequently recut (F53) in the late third/fourth century.
Gateway: a single carriageway through an arch 3.35 m wide. The gate was later incorporated into the Town Wall. The second-century road surface was cut by a large pit, presumably for the timber phase, which was rebuilt in stone, with the footings cut into a pre-existing rampart. The periods from Fulford's excavation are:

- Period 1: pre-rampart earliest road surface and side gully.
- Period 2: rampart construction and excavation of Inner Ditch, timber and stone gatehouses, more road make-up.
- Period 3: construction of Town Wall and backfilling of Inner Ditch, more road surfaces and drains (late third century).
- Period 4: recutting of the Inner Ditch in the fourth century (F53); included within the fill was a large part of a human cranium. Late re-metalling and final abandonment.
- Period 5: 1890 and 1909 excavations.

Rampart: a *terminus post quem* from a worn Hadrianic coin is not inconsistent with the prevailing notion of a construction date of A.D. 180–200.
Wall: no additional dating evidence was procured in the excavations.
Notable finds: two skulls were found, one in 1909, to which Fulford's excavations added another. Their radiocarbon dates were 550–200 B.C. (1sd OXA 8732) and A.D. 420–540 (1sd OXA 8733). Fulford made reference to Boon's list of early artefacts from the plateau, the glass bead and the Montefortino-type helmet cheek-piece, wondering if there might have been some earlier ?fourth-century B.C. barrows on the Silchester plateau (Boon 1974, 36, 303–4; Fulford 2000a; Fulford *et al.* 1997, 129–31). A dog burial was found in a pit at the south-east corner of the excavation of the North Gate. This is slightly reminiscent of the sentinel dogs at the entrance to the enclosure and hoard deposition site at Hallaton (Score 2012), but dog burials are fairly common at Silchester.

THE AMPHITHEATRE GATE

HISTORY OF INTERVENTIONS

1865 Excavation (Joyce 1876b, 416) (Journal 18 May 1865).
1893 Excavation (Fox and St John Hope 1894, 237).
1938 Excavation (Cotton 1947, 128–31, fig. 4).
1981 Water-pipe trench cut through (Fulford 1984, 71–2, fig. 32).

ADDITIONAL NEAR-CONTEMPORARY ACCOUNTS

Article (St John Hope 1893b).

DESCRIPTION

The perceived importance of this minor gateway was once much greater, until the main East Gate was discovered in 1872, after which it was recognised that the gate was ultimately just to accommodate a local road leading to the Amphitheatre and a small spring thought to be a *nymphaeum* in LP 4167, to which the villagers said the traces of a road could be traced in hot summers (Joyce 1881b, 346). Cotton's excavations were undertaken in preparation for preservation of the gateway, and Fulford re-excavated as a modern water-pipe was passed through the gap.
Gateway: a single carriageway, 3.3 m wide, fractionally narrower than the North and the South Gates. The Town Wall foundation was carried right across the base of the gate, suggesting its construction was secondary to the original design. However, the dating of the Wall coincides with a refurbishment of the Amphitheatre in stone in the early third century.
Street metalling: Cotton observed that two distinct layers of road were visible and it is thought one pre-dated the Wall and one went with the gate. A layer of silt overlay the original road. However, Fulford considered the earlier road level to be natural gravel.
Ditches: no trace of a causeway was found, so a wooden bridge was suspected.

SECTIONS THROUGH THE WALL AND DITCHES

HISTORY OF INTERVENTIONS

1890 Excavation near South Gate (Fox and St John Hope 1890, 754–7).
1896 Section near the Lesser West Gate (St John Hope 1897a, 426–7).
1909 Multiple sections (St John Hope and Stephenson 1910).
1938–9 Cotton, seven interventions (Cotton 1947); interim report (Wright 1940, 177–9).
1956 Boon, Trench E (Boon 1969, 21).
1957–8 Boon, Trench J (Boon 1969, 10–11).
1967–8 Collis, two interventions (Collis 1983).
1978 Fulford, five interventions (Fulford 1984).
1992–3 Fulford, three interventions (Fulford *et al.* 1997, 142–5).

DESCRIPTION (FROM THE SOUTH GATE CLOCKWISE)

Generally the interpretation has been that there was an earlier V-shaped Inner Ditch associated with the first earthwork defences; the bank was then cut into to build the Wall, with the U-shaped Outer Ditch replacing the V-shaped one which was too close to the Wall's footings. The sections are described in turn and illustrated in FIGS 8.1–2.

(1) 1890 SoA

Reference: Fox and St John Hope 1890, 754.
A section was cut behind the west flanking Wall of the South Gate through the whole height and

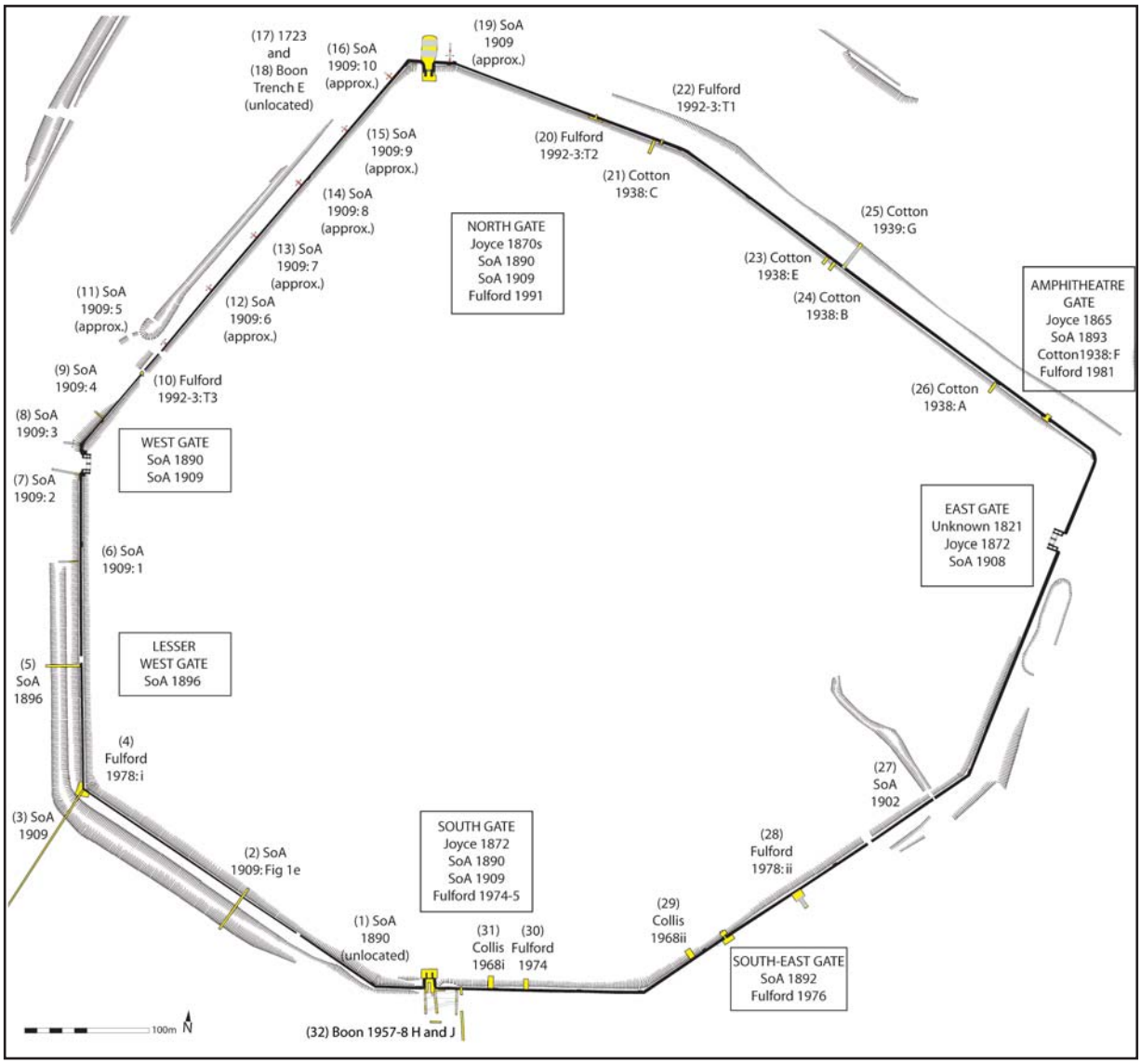

FIG. 8.1. The location of interventions on the Town Wall and Ditches.

breadth of the mound to ascertain its nature. Little was found and few conclusions drawn. No plans or sections were published.

(2) 1909 SoA

Reference: St John Hope and Stephenson 1910, 317 and fig. 1e.
'A second cutting through the outer work was made at some distance eastwards' of the south-west corner trench (Section 3). This was described in the illustration as 'west of the South Gate', and it can be accurately located from a pencil mark on an OS Map Sheet in the NMR.

(3) 1909 SoA and (4) 1978 Fulford at the south-west corner

References: St John Hope and Stephenson 1910, 317–18, fig. 1d; Fulford 1984, 27, 33–4, 58–9, 66, figs 6–9. See also interim note (Goodburn *et al.* 1979, 331).
In 1909 the Antiquaries dug a section from the south-west corner of the Town Wall all the way out to the Outer Entrenchment.

The cutting proved the existence of two ditches, the one nearer the wall being V-shaped, the

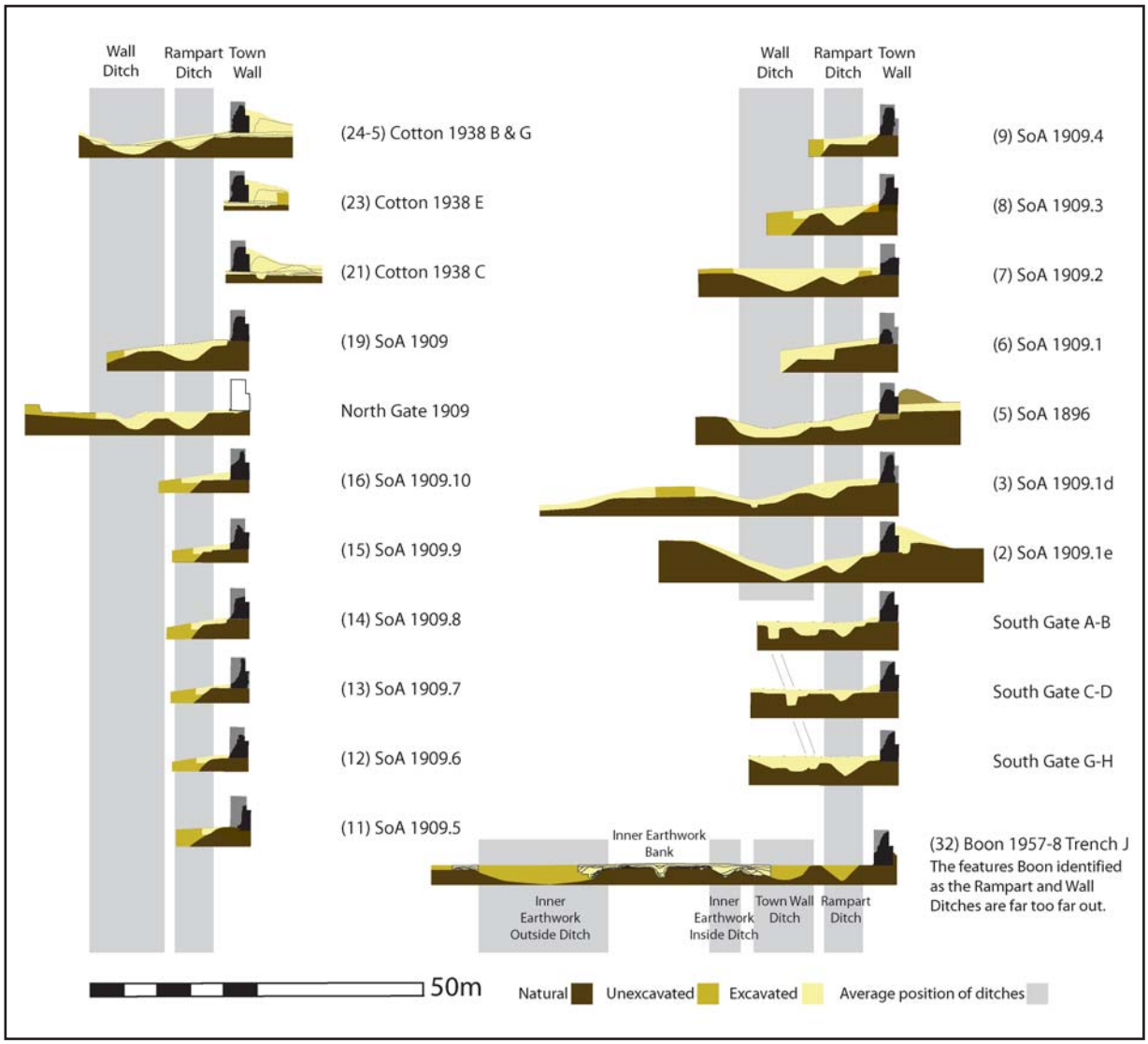

FIG. 8.2. Sections through the Town Wall and Ditches.

> outer one being of a shallow saucer shape. The trench was then carried through the dead ground between the city wall and the great outer mound known as 'Rampiers', and finally through the great mound itself, a distance of nearly a thousand feet. (St John Hope and Stephenson 1911, 264–5)

Two sections of this very long trench were published and it is unclear whether the whole length was actually excavated or just profiled (St John Hope and Stephenson 1910, 318, fig. 1: 'Outer Bank Section 1' and 'Section at south-west angle'). If they did dig the whole extent, it is notable that they did not find anything; they referred to the area as 'dead ground'. A pencil line indicating the course of the trench is on an OS map in the NMR.

Fulford excavated the area between the Town Wall and the Inner Ditch in 1978. This gives us some insight into this area of the town prior to the Wall. A clean orange gravel spread, 0.15–0.20 m thick, dating to the Flavian era, sealed an earlier pre-Flavian black rubbish layer containing largely Claudio-Neronian with a handful of pre-conquest sherds. Animal bones were mainly cattle and represented primary butchery material with skull and limb extremities dominating. No cut features were noted in the 40 m^2 excavated.

An important observation is that a Hadrianic gravel horizon (19) could be seen making a sharp dip as it headed towards where the later Rampart Ditch was to be dug (see Fulford's sections

F–G). This makes no sense, unless there was already a ditch or major excavated feature here. It may be that here the 'Inner Earthwork' ditch was co-terminous with the later Rampart Ditch.

(5) 1896 SoA near the Lesser West Gate

References: St John Hope 1897a, 427, fig. 1; St John Hope and Stephenson 1910, fig. 1c.
This section was cut when investigating the Lesser West Gate and was one of the earliest dug through the ditches. It was 4.4 m south of the south jamb of the Lesser West Gate. The trench was 0.9 m wide and at right angles to the Town Wall. The Antiquaries found two major cuts and were surprised not to find a berm between the Town Wall and the Inner Ditch, the cut of which went right up to the Town Wall's foundation and therefore potentially undermined it. Nonetheless, in that season they interpreted the town ditch as being a double ditch similar to a section they knew in London.

> The scarp descended somewhat abruptly from the plinth of the wall to a depth of [2.1 m] from the old roadway in the gate, which represents the original level. From this point, which was [2.0 m] from the face of the wall, the ditch gradually shelved downwards for [15.2 m] where its lowest depth was [3.7 m]. It then commenced to rise somewhat quickly, so that at [22.2 m] from the wall the depth was only [1.8 m], but the rest of the counter-scarp was under a field beyond our limits and could not be followed up. The total width of the ditch was about [24.4 m]. At a distance of [6.7 m] from the wall we came upon the slope of a gravel bank, which further excavation showed to be [0.8 m] high and [5.8 m] wide in all, with a flat top [2.9 m] wide, parallel with the slope of the ditch. This bank was found to pass across the front of the gate … (St John Hope 1897a, 426–7)

(6) 1909 SoA 1

Reference: St John Hope and Stephenson 1910, fig. 3.
A section excavated just to the south of the West Gate. The location is taken from a pencil mark on an OS map in the NMR. The Inner Rampart Ditch cut an earlier feature here.

> [The feature] on the south side was cut on the inner slope of the V-ditch at [1.7 m] from the ground level; it had a diameter of [1.2 m] and was about [1.2 m] in depth, but only began to show when the side of the ditch was reached. It was filled with rough broken pottery, mostly of the coarse black ware with calcinated flint in the paste [probably 'Silchester ware']. A large iron brooch was also found here. (St John Hope and Stephenson 1910, 326)

(7) 1909 SoA 2 in front of the West Gate

Reference: St John Hope and Stephenson 1910, fig. 3.
This section, showing there was no causeway, led the Antiquaries to believe there must have been a bridge in front of the West Gate.

(8) 1909 SoA 3

Reference: St John Hope and Stephenson 1910, fig. 3, sections 3–10.
In this section a pit was revealed which was cut by and pre-dated the V-shaped Inner Ditch:

> The pit on the north side, which was [2.4 m] west from the rounded angle of the wall, was also cut in the slope of the V-ditch, and was [1.1 m] in diameter, with a depth of [2.7 m]. It proved much richer in objects and pottery, and yielded two whole pots, three bronze brooches, a bronze surgical(?) instrument, a bronze handle, four broken bone pins, a piece of lead, a fragment of millefiore glass, two saggars [ceramic containers for firing pots in], one much vitrified, and a white marble object shaped like a brick. Much broken red-glazed ware was also found, including a good many riveted pieces and the following potter's names, CARILLI. O, SECVNDUS, IVSTI. M, OF. CRESTI, also a large piece of an early figured bowl (shape 29) of Lezoux ware; a cup of late first or early second century, a dish with round moulding inside, later first century, and figured ware of early second-century date. A small fragment of marbled red-glazed ware was also found here. (St John Hope and Stephenson 1910, 326)

The samian stamps date to between Claudius and the end of the first century; and the find of surgical instruments reminds one of the set in one of the Stanway burials (Crummy *et al.* 2007). I wonder if a lot of this early material might not come from the disturbance of earlier deposits. This is certainly very close to the proposed Late Iron Age to Early Roman burial enclosures (see p. 379). The earlier pits were found to have been cut by the V-shaped Inner Ditch in the sections either side of the West Gate (SoA 2 and 3). From one of these (and probably SoA 3 from which so much other material also came) there was also an Iron Age coin pellet mould. This was not reported by the excavation committee but was only recognised at a later date by Boon. 'The contents of both pits cover broadly the same period. Both contained pottery of the earliest type yet recognized in a stratified deposit at *Calleva* – coarse, bead-rim bowls, butt-beaker shards, etc., in general of a pronounced native and pre-Roman facies [i.e. fabrics]. Both also contain Roman pottery, ranging from Claudian to Flavian times and well into the second century' (Boon 1954b, 69).

From cleaning the inner face of the Wall, just north of the West Gate, came a flattened golden ring, thought to be Late Roman (Fox 1895, 468).

(9) 1909 SoA 4

Reference: St John Hope and Stephenson 1910, 320, fig. 3.
A label on the section states this was 100 ft (30.5 m) north of the West Gate.

(10) 1992–3 Fulford Trench 3

Reference: Fulford *et al.* 1997, 142–3, fig. 26.
This was excavated prior to Wall conservation. There was a break in the Wall for no apparent reason. A small trench on the outside showed the core had been removed down to the ironstone plinth. The oblique cut through the Wall also had a post-hole cut into the edge on the inner side as if for a gate. It was concluded this was designed to give access between fields, and it pre-dated the SoA plan of the 1890s.

(11–16) 1909 SoA 5–10

Reference: St John Hope and Stephenson 1910, 320, fig. 3.
Six further sections were dug between the West and North Gates. Their locations have not been published, so assuming an even distribution, nominal positions have been indicated on the plan spacing them evenly along the Wall.

It is notable that the Wall in Sections SoA 4 (9) and SoA 5 (11) sealed a 1.4 m deep black deposit, interpreted as a great pond or ditch. It is too far south to be sealing the fill of the Inner Earthwork Ditch so it must be another early enclosure boundary filled in. From within SoA 5 came the partial skeleton of a horse. Also from it were a wooden writing-tablet and terra sigillata stamped CRACIS.M and LVPPA, which are not especially early.

(17) 1732 discovery of *RIB* 68

Reference: Wright and Fairholt 1845.
During the grubbing out of a crab-apple tree on the Wall just west of the North Gate an inscription came to light (*RIB* 68), since lost; it had a dedication to either Julia Domna (A.D. 193–217) or Julia Mamaea (A.D. 222–35).

(18) 1956 Boon Trench E

Reference: Boon 1969, 21.
This was located just to the west of the North Gate. It was excavated to test a statement by Aubrey in his *Monumenta Britannica*, written 1665–3, that there was the 'vestigium of an Arx, Barbican or Ridout' at the north-west corner of the town, which he rather inaccurately represented in a sketch as bending at a right-angle (Aubrey 1980–82, 428, 440). Nothing was found and the trench's location is not shown on any plans published by Boon.

(19) 1909 SoA

Reference: St John Hope and Stephenson 1910, 319, fig. 2b.
A section a little to the east of the North Gate was dug at the same time as the trench across the ditch just in front of the North Gate was excavated.

(20) 1992–3 Fulford Trench 2

Reference: Fulford *et al.* 1997, 142–4.
Trench 2 was located where the upper courses of the Wall had been robbed along a 12 m stretch, and the fabric of the Wall was concealed beneath the turf. It was thought possible that features such as another postern gate might be concealed. Excavation revealed no additional features.

(21) 1938 Cotton Site C

Reference: Cotton 1947, 123–9, fig. 2.
This trench was excavated to examine the interface of the street and Town Wall. Here the street could clearly be seen in section continuing under the Town Wall and Earthwork. Pre-dating the Earthwork were also Cotton's Period I (A.D. 45–65) deposits, the earliest occupation levels recorded at that date, and her Period II (A.D. 65–120) remains of timber huts or houses and associated occupation debris.

(22) 1992–3 Fulford Trench 1

Reference: Fulford *et al.* 1997, 142, fig. 24.
'Trench 1 was located at a point where the fabric of the Wall had eroded to create a crescent-shaped hollow in the outer face of the Town Wall. Clearance of tumble from the front of the Wall revealed the plinth blocks of ironstone and evidence of differential subsidence. This had led to a break developing in the lower courses of the surviving fabric exposed in the outer face.' The positional accuracy of this trench on the much reduced published plan means that this might be located over one of the enclosure ditches revealed by the geophysics, which would explain the subsidence.

(23) 1938 Cotton Site E

Reference: Cotton 1947, 131–2, fig. 3.
This section investigated where a possible postern gateway may originally have been planned, as demonstrated by some masonry, but which was certainly never completed. Traces of Cotton's Period I (A.D. 45–65) occupation were found here, including traces of a hut with three post-holes (E1–3), as well as later Period II (A.D. 65–100) remains of timber huts or houses and associated occupation levels.

(24) 1938 Cotton Site B

Reference: Cotton 1947, 123–32, pl. XXX.
This was a section into the back of the Town Wall. Traces of Cotton's Period I occupation (A.D. 45–65) were found here.

(25) 1938 Cotton Site G

Reference: Cotton 1947, 133–4, pl. XXX.
Section cut from the base of the Wall across the ditches to the modern roadway. The existing berm concealed an earlier filled-in V-shaped Inner Ditch which had been deliberately backfilled. The later outer ditch was more saucer-shaped and had a marked external counterscarp.

(26) 1938 Cotton Site A

Reference: Cotton 1947, 123–4, fig. 1.
This cut into the back of the rampart and included half of one of the counterforts of the Town

Wall. The section revealed some of the earliest occupation material, dated to Cotton's Period I (A.D. 45–65), indeed some of the material was possibly earlier. A pit (A1) with a uniform fill contained early pottery: no terra sigillata, but butt beaker (Tiberian form), a coin of Cunobelin and an imported beaker (cf. Loeschcke type 84a at Haltern). It is curious that the pit is outside the Inner Earthwork.

(27) 1902 SoA: Stream exit point

Reference: St John Hope 1903a, 419.
Investigative work in the south-east quarter where the stream passed through a breach in the Town Wall was inconclusive but it did reveal the Wall in this sector was built on wooden piles, including a 9-inch square piece of oak which may have been part of a sluice gate.

(28) 1978 Fulford ii

Reference: Fulford 1984, 26, 65, 70, figs 27, 33.
The purpose of this trench was to investigate the location and number of defensive ditches associated with the Town Wall and earlier Rampart, though the high water table prevented digging lower than 1 m below the ground surface. The trench extended out 15 m, and was initially 8 m wide, narrowing to 3 m.

The Rampart Inner Ditch was seen from 0.0–4.8 m out from the Wall, where it was cut by the Wall Ditch which cuts down from 4.8->14.6 m (where the excavation trench ended).

There was twelfth- to fourteenth-century material outside the Wall, and tentative evidence of a lean-to structure against the Wall.

(29) 1968 Collis ii

Reference: Collis 1983.
This section was cut into the back of the rampart. It was positioned beyond Boon's projected line of the Inner Earthwork, but within the line shown by the geophysics. While the section was not bottomed, at the lowest level Collis perceived a hollow which filled up during the first century. The location also happened to be where two wall building-gangs met, which was argued from a change in mortar, with the eastern side being the earlier.

(30) 1974 Fulford

Reference: Fulford 1984, 30–2, 37, 62–3, 67–8, 75–6, figs 25, 28.
This trench was dug to expose the rear face of the Wall 78.7 m from the eastern inturn of the South Gate (Fulford 1984, 25, 30–2). Here, while there was Claudio-Neronian material, there were also pre-conquest features, including a Pit (1) with Tiberio-Claudian sigillata, Gallo-Belgic wares and a British LY coin. Over this then developed a 'black earth', perhaps being a cultivated deposit.

(31) 1968 Collis i

Reference: Collis 1983.
A section behind the Rampart was excavated, though not down to natural. Pre-dating the bank there was a sequence of deposits. First a pit, filled with pre-conquest material and the same black soil with occasional gravel as the overlying deposit. Secondly, overlying this was a dark grey deposit; whether this represents a midden build-up or cultivation is unclear. Pottery was pre- and immediately post-conquest with a terminal date *c.* A.D. 50s, native and Gallo-Belgic wares making up 50 per cent of the assemblage. An infant burial was cut into the natural. Finally, above this was a black soil layer built up over a century, though containing some re-deposited material including Arretine sherds. This provides the *terminus post quem* for the bank. It includes samian into the Antonine period, perhaps A.D. 150–60; late second- and early third-century material was noticeable by its absence. All this was capped by a silt deposit like road silt, which was sealed by the bank.

(32) 1957–8 Boon Trenches H and J

References: Boon 1958a, 14–15; 1969, 10–11, 13–14.
Trench J is a challenge to interpret as the text description of it and the published sections are inconsistent. The trench was an interrupted cutting over 60 m long. His published plan shows a small cutting adjacent to the Town Wall for which no section was published. He states that the inner two ditches of the Rampart Ditch and Wall Ditch extended 1.2–25.6 m from the base of the Wall. However, on his section the features clearly labelled as these are much further out, with a suggested Rampart Ditch being 17.1–21.0 m away from the Wall and the Wall Ditch being 21.0–25.6 m; something is clearly amiss. Boon does, however, show the edge of a large cutting which is almost certainly the genuine Wall Ditch at the northern end of his published section.

What his section does show, therefore, is a series of two or three additional ditch-like features parallel to the town defences, but all within the major (unexcavated) ditch of the Inner Earthwork which was 41.0–60.7 m out from the Town Wall.

INTERPRETATION

Broadly, the Town Wall circuit is believed to have started as a timber-topped rampart with an external V-shaped ditch. Fulford's excavation at the South Gate demonstrated that it was constructed before the rampart; whether immediately before as part of the same construction activity, or earlier as a free-standing monumental gateway is unclear, though I would presume the former.

Later, the external face of the earthwork was cut back to insert the Town Wall, the V-shaped ditch was largely in-filled to stop the Wall slumping into it, and a broader U-shaped ditch dug further out. Various historical circumstances have been associated with the works and various features remain contentious (e.g. were both ditches open at the same time), but the chronology is relatively assured.

THE TOWN RAMPART AND V-SHAPED INNER DITCH

Description

The initial Rampart had protecting it a V-shaped Ditch, though its precise profile varied significantly. On average the ditch was about 6.0 m wide and 2.0 m deep, lying between 2.0 and 8.0 m out from the base of the later Town Wall (FIG. 8.2). Its construction separated the town from the burial enclosures to the west-north-west, and also from the Rampier Copse enclosure which had burials inset into its earthwork; but it included the Insula XXX temple enclosure.

Dating evidence

Cotton's work dated the early bank to *c.* A.D. 160–70, though Frere regarded this as too early. Instead, he conjectured that all the ramparts being constructed around towns were part of a province-wide programme of works, and since many of the others dated to later in the second century, Silchester should as well (Frere 1967, 286); Boon concurred with this line of argument (Boon 1969, 10, n. 3). The sections dug by Collis added little to the dating evidence obtained by Cotton, except for a sherd of samian which was 'unlikely to be earlier than AD 160' (Collis 1983, 62).

Fulford's excavations revealed more material dating to A.D. 160–80, but in addition found at the south-west angle a sealed deposit including an Oxfordshire mortarium dated A.D. 180–240, and some BB1 which was thought to be closer to the end of the second century; this led Fulford to conclude that the rampart was later than A.D. 180 and probably nearer A.D. 200 (Fulford 1984, 235).

Historical narrative

The British phenomenon of early town defences has always attracted specific historical

explanations. Boon associated it with the governor Albinus who 'stripped the island of troops for his war of AD 196–7 against Septimius Severus, rival for the throne. The frontier districts of the west and north would then have been left without the garrisons which kept the natives in check and men's thoughts must have turned to the possibility of an outbreak of violence unseen since the days of Boudica 130 years before' (Boon 1974, 66). In so doing he was following Frere (1967, 285) rather than other competing explanations at the time which included imagining a threat from the Welsh tribes (Wacher 1966, 67). In essence Frere's argument was that the large-scale provision of defences of Romano-British towns was so exceptional in the Empire that it must relate to a specific circumstance and need. He saw this need in the period between Clodius Albinus' elevation in A.D. 193 and the final show-down with Septimius Severus at the Battle of Lugdunum in A.D. 197, and this is where the consensus amongst those trying to find a single date has broadly remained. Nonetheless, Boon did note that at Cirencester the stone gates pre-dated the rampart, which seemed unlikely if all these defences had been erected in a hurry in response to a crisis.

Fulford avoided speculation, simply stating that his dating was not inconsistent with imagining construction around the time of Clodius Albinus (Fulford 1984, 235). Nonetheless, his excavation at the South-East Gate, where he had found traces of an earlier timber phase, was used by Frere (1984, 69) to counter the scepticism of others about the 'emergency theory'. Frere wondered if earlier timber gates were not actually more common but had yet to be identified at other sites.

For discussions placing Silchester in the national context see also Hartley (1983) and for a slightly later softening of Wacher's views on the possibility of establishing a fixed date for all the earthworks Wacher (1998).

THE TOWN WALL AND U-SHAPED OUTER DITCH

Description of the Wall

The Rampart was cut back on the outside and a free-standing Town Wall was constructed 2 m in front of it, then the gap between the two was filled with compacted clays. The Town Wall was around 2.9 m thick, with an additional external plinth projecting 0.23 m at the base. It was constructed on gravel and flint foundations, on top of which was first a pad of mortar, then ironstone slabs, then the Wall itself. There were 4–5 mortar and flint courses, then a double horizontal course of limestone throughout the entire thickness of the Wall. In some sections to the south-east where the ground was marshy, wooden piles were used as an addition to the foundations (Collis 1983). The internal face was stepped, reducing in thickness by about 0.5 m at 2.0 m from the base. However, at a series of *c.* 60 m intervals, this thickness was not reduced leading to a number of counterforts. Their size is too small for watch-towers or turrets, though this is how they were first interpreted (St John Hope and Fox 1896, 216; St John Hope 1890a). Boon, following Cotton, thought the projections could mark the location of access-stairs (Cotton 1947, 130; Boon 1974, 100).

The geology of the Wall has been examined by Sellwood (in Fulford 1984, 224–30) and more recently and comprehensively by Allen (2013a, 4–26). The flint rubble probably came from chalk outcrops in the Basingstoke area; the lime for the mortar was probably from the same chalk. The slabs for the string courses came from a variety of sedimentary deposits up to many tens of kilometres away from the north-west, north and east of the town.

Boon estimated the Wall would originally have been 6 m high with a parapet of 1.8 m. Assuming waggons carrying 500 kg, Boon calculated it would have required 45,000 loads of bonding-stone and 105,000 loads of flint (Boon 1974, 101). Allen upped the estimate with an additional 50,000 carts of sand, gravel and chalk/lime for mortar (Allen 2013a, 25); he also analysed how the detail of the slanting of the flints in the rubble core could be used to show how the Wall had been built by multiple gangs working in varying directions (see also Allen 2012b). The broader issue of the supply of stone to build the Wall has also been discussed by Pearson (2006, 100–4).

The weight of the structure meant that the V-shaped Ditch in front of the original Rampart had to be filled in; otherwise the Wall would have been prone to slumping into it. The new ditch was broader and saucer- or U-shaped, though again its profile varied significantly. On average it

was about 12 m wide, lying between 10 and 22 m out from the Wall (FIG. 8.2). Along the western side there was evidence for a gravelled pathway on top of the infilled Rampart Ditch between the Wall and the V-shaped Ditch.

Dating evidence

The Antiquaries first dated the Wall using the discovery of a denarius of A.D. 193 in the infilling behind it (SoA Section 11; unfortunately it is not clear which one Section 11 is, though the section in front of the North Gate would be likely if they are in sequence). This tied in with the discovery in 1732 of an inscription re-used or inset into the Wall. *RIB* 68 mentioned Julia Augusta, which meant either Julia Domna (A.D. 193–217) or Julia Mamaea (A.D. 222–35).

Cotton's excavations increased the amount of datable material, including coarsewares which could have been in use at the turn of the second and third centuries, and some samian. This led her to conclude a construction date of *c.* A.D. 190–210 (Cotton 1947, 130).

Collis, however, found material he was reluctant to date to before A.D. 250 (Collis 1983, 63–4), and together with Fulford pushed the construction date forward to between *c.* A.D. 260 and 280 (Fulford 1984, 42, 59, 62–3, 65).

Historical narrative

Unlike the earthen ramparts, the variable dating of town walls around Britain has meant that no specific event is associated with all of them; instead they are seen as a process starting quite early in the third century and continuing for about 70–80 years (Frere 1984). Allen observed that the Wall was not built using bricks from the local London Clay, but was more of a prestige project using stone from further afield (Allen 2013a, 106). For discussions placing Silchester's Wall in the national context see also Wacher (1952, 103–5), Corder (1955, 20–5), Blagg (1981), and Crickmore (1984, 9–23, 29, 50–6, 61, 93).

Associating the ramparts and town walls with two discrete historical events with cross-provincial causes may be in error. Esmonde Cleary took the longer-term view in his analysis looking at the much broader picture. He saw that while continental towns largely built free-standing walls, Britain developed an insular tradition of constructing walls cut into earthen ramparts, perhaps inspired from military defences in the North, though this did not happen in Germania. In the light of this he envisaged that the construction of British defences could be seen as long-term building projects for prestige, rather than sudden developments relating to historical stimuli, with the gates built first, the rampart second, then the wall inserted (Esmonde Cleary 2003, 83); Mattingly concurred (Mattingly 2006, 326–33).

A single or double ditch?

> About a dozen sections were made through the town ditch at various points, and in all cases the two ditches were found. The Inner or V-shaped Ditch appears to belong to the period of the inner bank, and to have been filled up when the outer one was dug, possibly at the time of the erection of the wall. (St John Hope and Stephenson 1911, 264–5)

This general sequence of one ditch being replaced by another is the common way town defences are interpreted. However, Fulford has suggested Silchester was different and has argued that both ditches were dug at the time the rampart was first constructed. This alternative view directly contrary to the direct observations of the Antiquaries was argued on the basis of volumetric calculations by Startin (Fulford 1984, 223–4; Fulford and Startin 1984, 241). He calculated the cross-section of the Bank to be *c.* 29.2 m^2 (length 2453 m), while the cross-sections of the Inner and Outer Ditch were *c.* 9.1 m^2 (2537 m) and *c.* 18.5 m^2 (2593 m) respectively. Both would be required to have been excavated to generate enough spoil for the bank.

> Mr. Startin's calculations make it clear that, *as one would expect*, the rampart required two ditches to be dug to provide the necessary spoil … Thus the outer ditch, which has a wide and shallow profile, is likely to have been a later Roman recut and extension of an earlier outer ditch originally contemporary with the rampart. (Fulford 1984, 236, my italics)

His work was done on the basis of Cotton's sections, though the earthwork here is more substantial than behind, say, the (5) SoA 1896 trench, or (2) SoA 1909.1e. Nonetheless, within margins for error, the size of the inner Rampart ditch does appear to be too small to provide for the bank on its own. But this quantity-surveying methodology sits awkwardly with a lot of the other data. A simple equivalence of the volume between the ditches and the size of the bank cannot be made as material did not simply go from one to the other as the following data demonstrate:

- To the north, the water main trench revealed that a large quantity of gravel from one of the ditches had been cast north to create a significant counterscarp rather than south to make the rampart (Fulford *et al.* 1997, 158).
- To the west, the Antiquaries observed that the rampart was not made up of the gravel cast up from the ditch as they had expected 'wherever cuttings have been made in it, [it] has been found not to be of gravel at all, but of earth containing fragments of Roman pottery. It clearly therefore could not have come out of the ditch' (St John Hope and Stephenson 1910, 321).
- To the south-east where Collis excavated, the bank appeared to be made predominantly of clay rather than gravel (Collis 1983).

Even if the source of the material may be questionable, the quantities involved did enable Startin to create an impression of the scale of the operation needed to build the rampart: 'At Silchester the estimate of the labour involved in constructing the late second-century defences was of the order of 300–350,000 man-hours with a total volume of some 71,370 cubic metres of clay and gravel extracted from the two ditches. This figure was consistent with the volume of clay and gravel actually used in the rampart itself' (Fulford and Startin 1984, 241). So, the Rampart (excluding the palisade and gates) could have been constructed by 300 people in 100–120 days working 10-hour days.

After excavating the North Gate, Fulford continued to conclude that the two ditches were 'cut at the same time as the construction of the rampart in the late second century' (Fulford *et al.* 1997, 95). This may be the case, but it is contrary to all of the Antiquaries' sections; however, as Fulford has pointed out, the outer ditch could always have been a later re-cut, so does not preclude them having been open at the same time. Some early towns with strong military associations certainly did have double ditches. Wroxeter probably initially had an early earthwork and double ditch, then a later larger earthwork (though never a wall) and a larger single ditch (White *et al.* 2013, 179–85). Ultimately the case for a double ditch is currently unproven but not impossible.

CHAPTER 9

THE INNER AND OUTER EARTHWORKS

EARLIER PERCEPTIONS

EARLY UNDERSTANDING

The analysis of the complex defences surrounding Silchester has a long history. While they were noted by earlier antiquaries (Kempe 1833, 123), Maclauchlan conducted the first comprehensive survey in 1850 in preparation for a Royal Archaeological Institute meeting in Oxford, after which the members ventured out to Silchester, armed with a freshly printed plan showing both the town itself and the 'detached lines of intrenchment in the neighbourhood' superimposed upon the local topography (FIG. 3.6: Maclauchlan 1851, 227). Comparing these earthworks to hillforts Maclauchan naturally concluded that the outer earthworks were of British origin in contrast to the Roman walls, and this became the dominant narrative surrounding the defences.

Once the Antiquaries' excavations got underway, Fox guided visitors around, expanding on his idea of the site as a Celtic *oppidum*, with the Romans later adapting the settlement to their own purposes (Anon. 1891c). This narrative was elaborated by Karslake following his excavations in Rampier Copse around 1909 and on his supposed south-east gateway through the Outer Defences in 1912. He envisaged the British *oppidum* as a series of concentric defences, with the inner polygon having the Roman wall built upon it; the outer earthworks forming a ring about 90 m out; then a roadway around; and finally an outer circuit about 2,290 m from the centre, all evident in relics in the landscape fossilised in the line of footpaths, field edges and parish boundaries: 'not by a ditch and vallum but by a broad track or road, some seventy yards across in places today – a "broadway" – as it was still termed in the seventeenth century. This can be traced today on the north-west and south of the line where it is called "The String". The whole area enclosed some 4,200 acres' (Karslake 1920). He revisited this idea 14 years later (Karslake 1933). His interpretation of a multivallate Silchester was never taken up in the mainstream literature and has generally been considered to be somewhat speculative, not helped by his imaginative fieldwork descriptions combined with a lack of published plans or sections of his various excavations.

The next attention that the outer earthworks received was from Cotton, where the results of her 1938–9 excavations, aided by Wheeler, provoked consternation. The Hampshire Field Club reported their alarm at the results that were being unearthed: 'These excavations have frankly upset the prevailing ideas of the origin and dates both of the stone walls of the later city, and of the outlying earthworks, the latter of which had been attributed to the Belgae, and the reign of Commius, *c.* 50 BC. When tested by the spade, these earthworks had given no earlier date from pottery evidence than AD 61' (Anon. 1941–3). Many now wondered where the supposed *oppidum* signified by the inscription CALLEV on the Iron Age coins really was if no earthworks could be attributed to it.

BOON'S INTERPRETATION

Knowledge of the defences was complicated by St Joseph's discoveries by aerial photography of the 'Inner Earthwork' and an extension to the 'Outer Earthwork'. Boon set out to investigate

these in the 1950s, and in doing so managed to date the new Inner Earthwork to the conquest or earlier; he also dismissed Cotton's Neronian or later dating of the Outer Earthwork and pushed it back a little earlier to the period he associated with the Cogidubnian client kingdom.

Boon created a simple developmental narrative around his interpretation of the earthworks (Boon 1969), with a slight variant of it appearing in Boon (1974, 38–46):

- **Period 1: down to the expulsion of Tincomarus**, where the Frith, Rampier Copse earthwork and Flex ditch might represent early occupation (see FIG. 9.8).

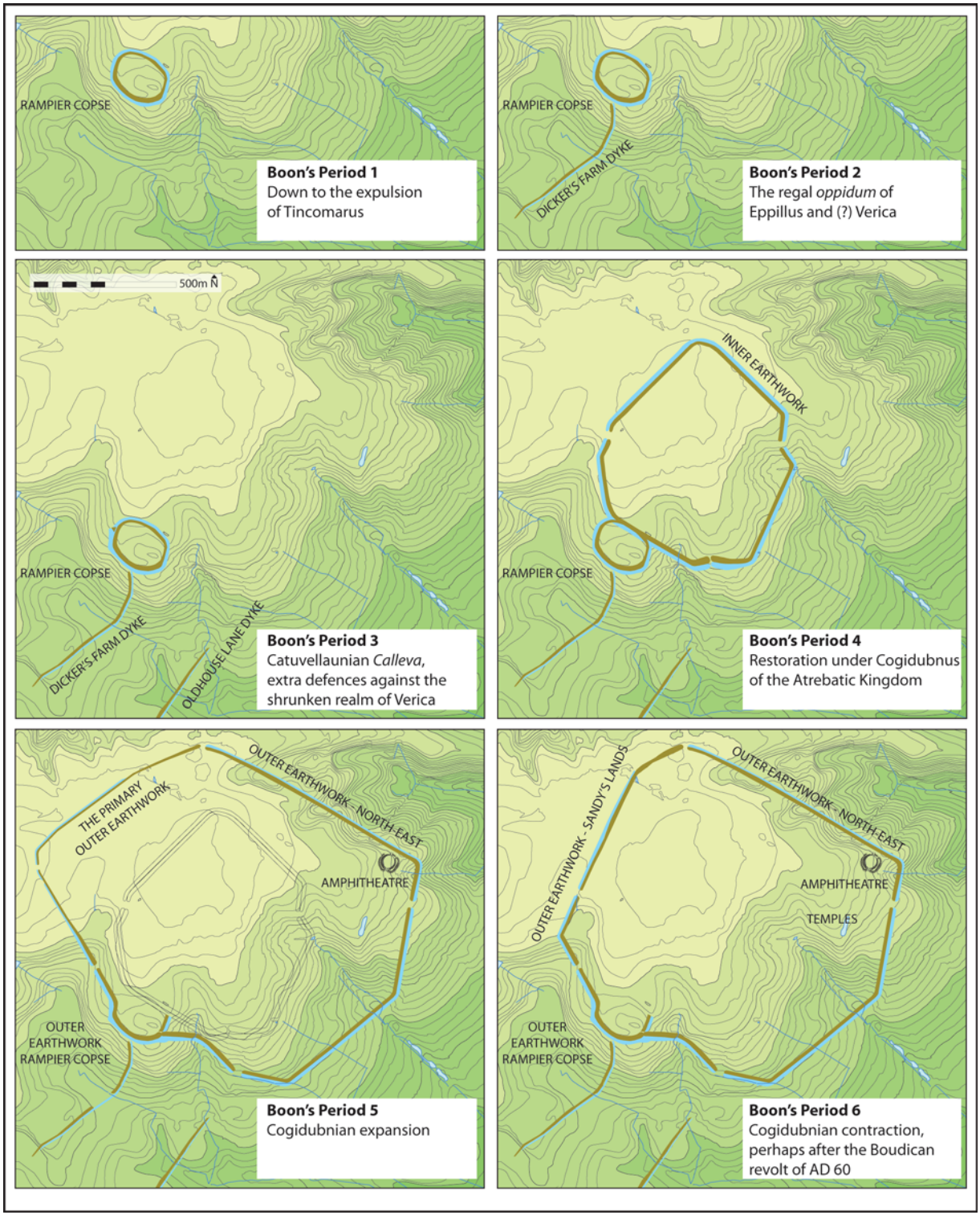

FIG. 9.1. Boon's historical interpretation of the development of the earthworks.

- **Period 2: the regal *oppidum* of Eppillus and (?)Verica**, starting around A.D. 5–10, with Eppillus rebelling against his brother Tincomarus and inscribing CALLEV on his coins. The tension between brothers leading to the provision of the outlying Dicker's Farm Dyke to the south-west of the town.
- **Period 3: Catuvellaunian *Calleva*, where Epaticcus and perhaps Caratacus held reign**, reinforcing the defences facing the shrunken realm of Verica to the south-east with the construction of the Oldhouse Lane Dyke.
- **Period 4: restoration of the Atrebatic kingdom under Cogidubnus**, when the Inner Earthwork was built enclosing 32.5 ha, with three gates to the east, west and south aligning with where the Roman roads were to come in.
- **Period 5: expansion with the construction of the Outer Earthwork** (95 ha).
- **Period 6: post-Boudican contraction** (86 ha), cutting off the westerly projection, with the ditch being re-cut and a flint revetment added later.

Subsequently, Fulford's work in the 1980s cast significant doubt upon the existence of much of the eastern circuit, which had been questioned by others previously. Rapid machine trenches revealed no traces of the hypothesised Outer Earthwork to the east or to the north. This just left the Sandy's Lands and Rampier Copse earthworks cutting off the plateau from the west. Of these, Fulford summed up where this left general opinion: 'the date of the outer earthworks on the northern and western sides is still not certain, but it is very probable that they lie within the late Iron Age' (Fulford 1984, 79–83), making them earlier than either Boon who had placed them in the Cogidubnian era, or Cotton who had believed them later still. This earlier dating was not on the basis of any fresh evidence at this stage; nonetheless this is where orthodoxy has subsequently rested (e.g. Wacher 1995, 274; Wilson 2006a, 12). Fresh evidence came later when Fulford and Timby re-examined the earlier pottery from Boon's trenches, and moved the suggested date of the Inner Earthwork back from the Cogidubnian kingdom to the turn of the millennium, with Fulford associating it with Tincomarus' reorganisation of the *oppidum* (Fulford 2003, 98).

THE EVIDENCE

The survey of views shows a perplexing mix of a desire to see these earthworks as Iron Age, which the Inner Earthwork now seems assured to be, while at least some of the evidence suggests a post-Boudican construction date for part of the Outer Earthwork. It also reveals scepticism

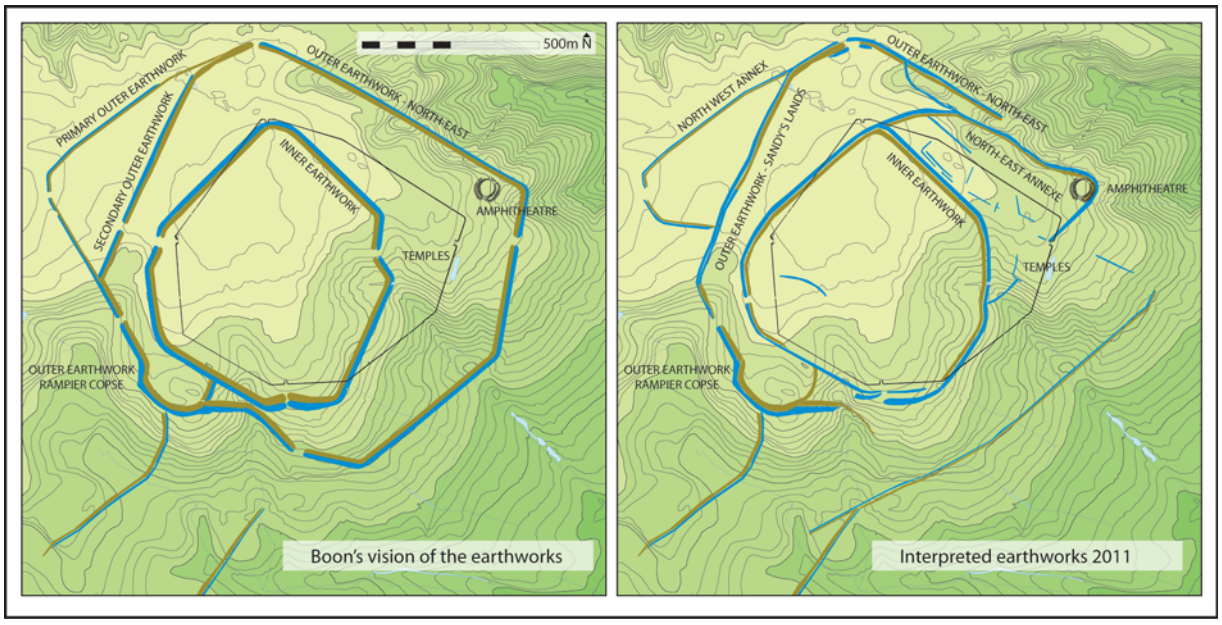

FIG. 9.2. The earthworks as reconstructed by Boon and our current understanding.

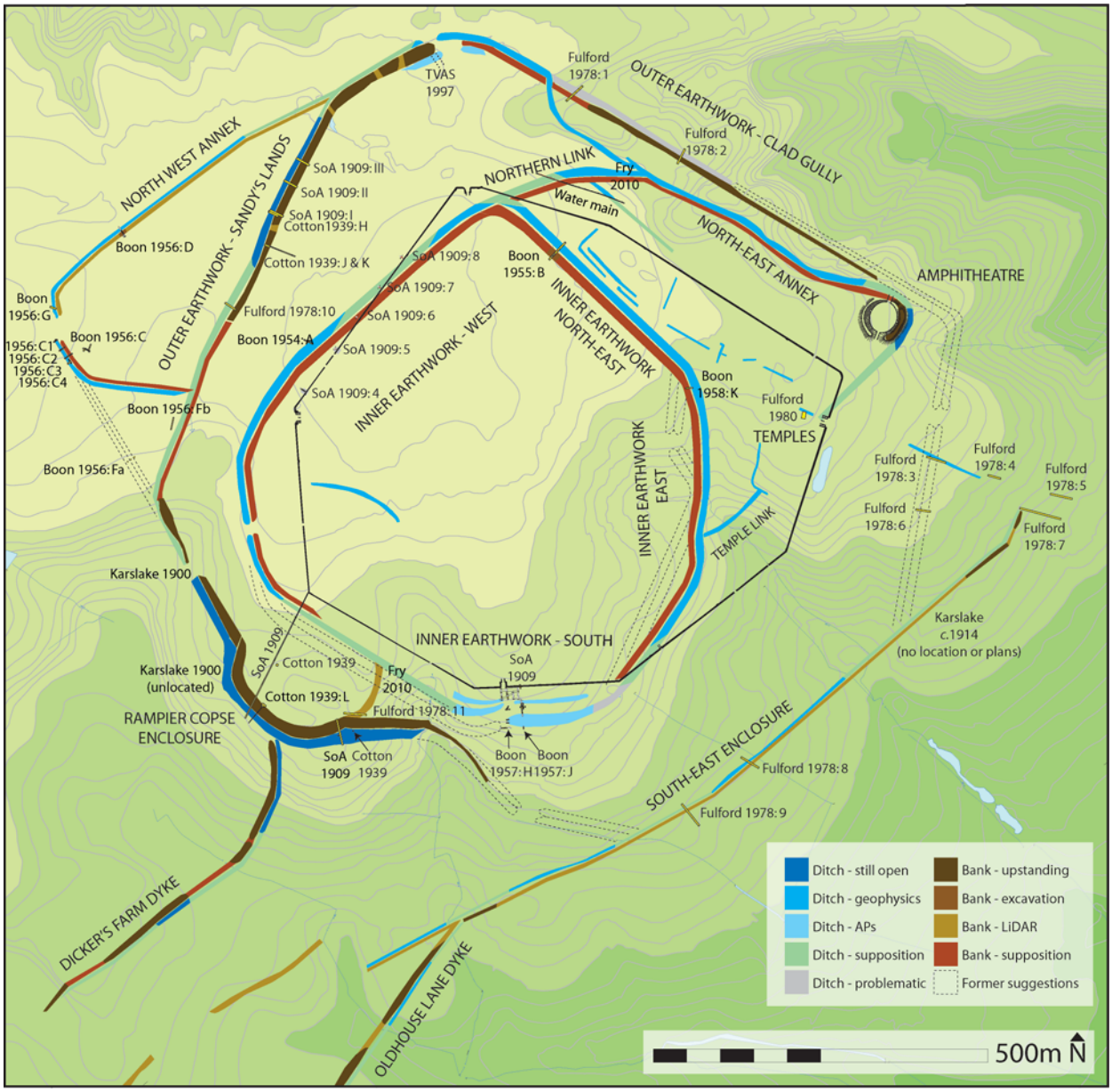

FIG. 9.3. The location of interventions on the Inner and Outer Earthworks, and the sources of evidence for our current understanding.

over whether various sections of the earthworks existed at all or were convenient interpolations or extrapolations.

In order to unravel the complexities, each section of earthwork will be examined in turn, if only because the survey in this volume has added to the complexity and similarly questioned some of the perceived courses of the earthworks. FIG. 9.2 compares previous received wisdom as represented by Boon, to the evidence we have now. FIG. 9.3 identifies the evidence for the outline of the earthworks as currently known (from excavations, geophysics, earthworks, LiDAR and aerial photography), and the nomenclature that has been used throughout this volume to identify them. Below, each section of the earthworks has been dealt with in turn, citing the evidence for their form and date; after which the evidence is collated to provide an alternative interpretation of the development of the earthworks. Sections and profiles of those excavated have been reproduced to scale in FIG. 9.4.

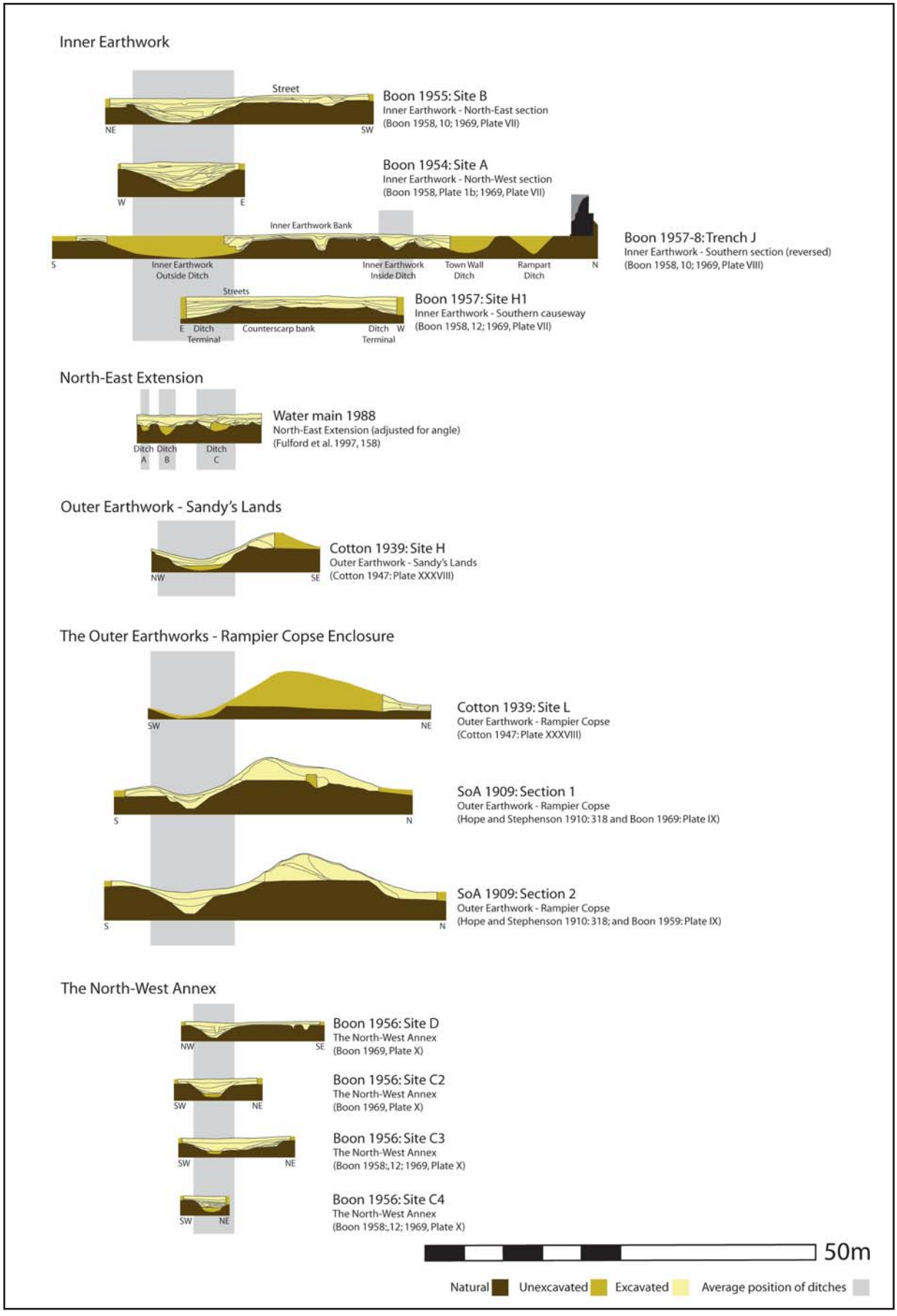

FIG. 9.4. Sections and profiles of the Inner and Outer Earthworks.

THE INNER EARTHWORK – NORTH-EAST

HISTORY OF INTERVENTIONS

1899 Unrealised exploration within Insula XXIIa (St John Hope and Fox 1900, 98–101).
1955 Trench B (Boon 1969, 6–9) and (Boon 1958a, 13–14).
1958 Trench K (Boon 1969, 9–10, pls Vc, VII).

DESCRIPTION AND DATING EVIDENCE

The ditch was first dug without realising it by the Antiquaries when they excavated what they believed to be a large cesspit, 3.9 m deep of uncertain limits, in the south-east quarter of Insula XXIIa. Their excavation spread over more than 6.1 m square, and they said it contained: 'a good many fragments of pottery, but not in sufficient number to enable whole vessels to be recognised from them, and at the bottom was a stratum of animal bones, below which was a malodorous layer of decayed animal and vegetable mater' (St John Hope and Fox 1900, 99–100).

Within the town the northern section of the Inner Earthwork was first identified from aerial photographs by St Joseph, which was followed by Boon's excavations examining the ditch and a hypothesised eastern inturned entrance. While he found the ditch, there was no clear evidence for an entrance-way to the east, though there was so much masking activity from the Roman deposits that one could have existed.

Boon Trench B crossed Insulae XXIII and XXIIa, showing the Inner Earthwork ditch to be *c.* 13.1 m wide, with sloping sides and a flat bottom 4.8 m across 3.4 m below the modern surface; the internal bank was 13.7 m wide. There was black organic material at the bottom of the ditch, which had been backfilled with Layers III then IV. III was clean gravel suspected to be from a counterscarp bank, with earthy seams near the base; within III was lots of material including: 'un-Romanized native wares, five pieces of sigillata, two early "one-piece" brooches, a small piece of human cranium, part of a shale armlet, and a lump of heavy iron-furnace slag. The samian (all plain …) is Claudio-Neronian at the latest, in view of the absence of ascertainably later varieties of coarse pottery, it is difficult to date the layer later than *c.* A.D. 60 at the outside' (Boon 1969, 6). Layer IV then came from the bank side and included more material. The dating of this is no later than the Flavian period, and it was sealed by a part of the street-grid. So Boon considered the dating in harmony with Cotton's dating of the street system to A.D. 90–120 (Cotton 1947, 127) (the road development is discussed pp. 390–4).

Boon Trench K was dug to see if there was an entrance-way through the Inner Defences on alignment with the later Roman road (the main east–west route), but there is a problem here. The location of the trench, as transcribed on his plans of the town, makes it clear it was significantly west of the actual location of the Inner Earthwork as revealed by the geophysics. Boon's excavation cut through many layers of the hard compacted gravel on the road, and only a small section was opened beneath (*c.* 4 x 1 m), and this appeared to be dipping down slightly to the east into a negative pre-road feature in the section (Boon 1969, pl. VII). However, according to his plan, the trench was on the east side of his hypothesised ditch, so should have been dipping down to the west, which it did not. Boon neglected to mention this. The trench was said to be unproductive of material and discussion of it was kept short. As it happens, the dipping down to the east is exactly what one would expect given the revised location of the Inner Earthwork from the fluxgate gradiometry from this project. So the Inner Earthwork ditch was found and there was not a causeway here for an entrance.

CONCLUSION

The organic matter at its base, followed by the fairly clean fill with 'earthy seams' near the base, suggests the ditch was open for an extended period of time. The dating evidence for a Claudio-Neronian infilling of the north-east section was provided by Boon's Trench B, but there was no dating evidence for its creation.

THE INNER EARTHWORK – EAST

While the north-east side of the enclosure showed relatively clearly in St Joseph's aerial photographs, the east and south-east trajectories were not so obvious. Boon attempted to trace it through an early innovative, but unsuccessful, use of geophysics (p. 33), but his sample transects were too far to the west. The actual course is revealed in the fluxgate gradiometry from this survey. However, the more recent geophysics have revealed various features that can help date the infilling of this revised course of the ditch.

The Public Baths were constructed on top of, or cut into, the bank of the Inner Earthwork (if still standing), with the latrine situated in a perfect position to drain east into the Inner Earthwork ditch. At a later date the drainage was switched to come out of the west of the building. This may relate to early on when the Inner Earthwork was still open, and a later infilling of this relict defensive work. The dating of the Public Baths is generally thought to be early as the front portico was knocked down to build the new east–west road; but the continued use of the ditch as a drainage channel for the cess suggests this section remained open longer than the Claudio-Neronian section of Boon's Trench B.

This impression is supported by the line of a metalled roadway also appearing to curve and respect the line of the Inner Earthwork ditch in Insula XXXIIIb (Interior 17, p. 152), which suggests that when the road system was developed and extended out from the centre, this ditch was also still open. It can be noted that the Inner Earthwork is projected to meet the line of the later Town Rampart, where the South-West Gate (aka the Sluice Gate) was located. So it looks as if the ditch retained a function for some time of removing drained water from the Public Baths, as well as, at this point, from the *Mansio* bathhouse.

CONCLUSION

While we still do not have good dating evidence for the construction of the Inner Earthwork here, the south-east Inner Earthwork ditch remained open into the later first and second century to drain the Public Baths, perhaps until the Town Rampart and V-shaped Ditch were created.

THE INNER EARTHWORK – WEST

HISTORY OF INTERVENTIONS

1909	SoA 2–8 (St John Hope and Stephenson 1910).
pre-1909	Karslake, unlocated near the south-west entrance (Karslake 1910).
1954	Trench A (Boon 1958a, 13; 1969, 5–6).

DESCRIPTION AND DATING EVIDENCE

To the north-west the Inner Earthwork passes at a slight angle under the later Town Wall. Without realising what they were excavating, many of the Antiquaries' trenches sampling the later Town Wall Ditches may have revealed evidence of the earlier enclosure. They are described in full in the section on the Town Wall. There were seven trenches between the West Gate and the North Gate, and within two of them the Wall sealed a 1.4 m deep black deposit (SoA 4 and 5) described as a 'great pond' or ditch. Alas the precise location of these trenches was never published. Trench 4 was said to be 30 m from the West Gate, which makes it set back too far from the ditch to be the 'Inner Earthwork', but Trench 5, which is not precisely located, could have struck it.

To the western side of the town the course is reasonably secure from geophysics and aerial photography down to the south-west entrance, though where the course disappears under the woods of Rampier Copse, the true line becomes harder to identify. There were excavations in the vicinity of the south-west gap by Karslake, but no useful details were published.

In Boon's Trench A, the Inner Earthwork ditch was 13.7 m wide with sloping sides and a flat bottom, 3.1 m across, 3.7 m below modern surface, and 1.2 m below the September water table.

Its fill included 'organic matter in quantity, but also horse, ox, pig, sheep, dog as well as oyster shells'. The pottery included Claudio-Flavian sigillata. The material from the very bottom was the earliest. This initial rapid silt was covered by a stagnant build-up in the ditch suggesting it had been open for a considerable period of time. The interim states the first deliberate filling, gravel from the former bank, was Flavian at the earliest, containing a fragment of a Dr. 27 samian cup. The penultimate fills (Layer IV) included two Flavian *aes* and an unworn dupondius of Trajan, mid-second-century Lezoux sigillata, and no necessarily later material. The final fills (Layer V) included worn sestertii of Marcus Aurelius and Faustina II.

CONCLUSION

The evidence of the stagnant build-up after the initial silting suggests a longer period open than Boon's chronological narrative for all the outer earthworks allowed. Boon's dating of the earliest material mentioned was Claudio-Flavian, while the infilling of the ditch from the penultimate layers appears to be late Flavian/Trajanic; later material in the top fill could have been infilling into the settled backfill.

THE INNER EARTHWORK – SOUTH

HISTORY OF INTERVENTIONS

1909	SoA '1000 ft trench' (St John Hope and Stephenson 1910, 318; 1911, 264–5).
1909	Exploration of ditches south of gate (St John Hope and Stephenson 1910).
1957–8	Trenches H and J, south of the gate (Boon 1958a, 14–15; 1969, 10–11, 13–14).
1978	Excavation of corner of Town Wall and ditches (Fulford 1984, 27, 33–4, 58–9, 66).

DESCRIPTION AND DATING EVIDENCE

The course of the Inner Earthwork becomes obscure from the west of the town round to the South Gate. Boon projected it passing through the pasture of the Rampier Copse field, but four factors militate against this suggestion: it could not be seen there in the geophysics, aerial photography or LiDAR; nor was it picked up by an excavation crossing the field. In 1909 the Society of Antiquaries dug a long trench from the south-west corner of the Town Wall to the Outer Earthwork, 'nearly a thousand feet' long; this is described in two written sources, though there are no published sections of the whole length (FIGS 6.50 and 59). Only the sections close to the Town Wall and through the Outer Earthwork rampart were published. It is probably not a coincidence that Cotton's excavation there in 1939 was adjacent and parallel to this trench, suggesting it was still only partly backfilled within the woods. The section is instructive in two respects: first, there was no mention of any significant finds from within the Rampier Copse enclosure (which correlates with the geophysics which show it being apparently empty); and secondly, if a major ditch *had* been found, one would have hoped it would have been recognised and commented upon.

A solution could be that the Inner Earthwork here is co-terminous with the line of the later Town Rampart and Wall earthworks. One possible clue suggesting this comes from Fulford's 1978 excavation at the south-west corner of the Wall. In his section he noted a Hadrianic gravel horizon (19) making a sharp dip as it headed towards where the later Rampart Ditch was to be dug (see Fulford's section F–G). This makes no sense, unless there was already a ditch or major excavated feature here; but it would make sense if the 'Inner Earthwork' ditch was co-terminous with the later Rampart Ditch at this point.

Around the South Gate the line of the Inner Earthwork and the southern entrance are no less problematic. An apparently clear trace from aerial photographs is neither matched by comparably clear fluxgate gradiometry nor earth resistance survey (see Exterior Sheet 21). There appears to be a wide variety of cuts and recuts creating a confusing jumble of signals. However, this is where the best dating evidence comes from, so the context needs to be unpicked with care.

One fundamental problem is that there is a major discrepancy in Boon's report meaning the precise location of some of his trenches cannot be relied upon. His overall trench location plan, the measurements in his text and the detailed drawing of Trench H all differ. The latter two are consistent with each other, but the overall location plan is the one most often reproduced, and trenches shift around on this, for example H4 is shown 9 m too far north. This level of inaccuracy makes matching up his results with the geophysics and the aerial photography (which has a similar margin of error in its plotting in places) a challenge.

Boon Trench J was the main north–south trench which radiated out from the Town Wall catching two ditches on its way: one 21.3–25.6 m, and another 41.0–60.7 m from the Wall's base. Boon mistakenly identified the inner one as being the Town Wall ditch. This interpretation can be rejected. It is significantly further out from the base of the Wall than in any of the other excavations undertaken (see FIG. 8.2). He interpreted the outer ditch as belonging to his Inner Earthwork. The aerial photographic interpretation, however, showed the 'Inner Earthwork' here as having two ditches on either side of a bank, and it is almost certainly these two ditches that Boon excavated. The locations work reasonably well (Bewley and Fulford 1996). The two parallel ditches with an earthwork in the middle make this boundary rather different in character to the Inner Earthwork to the north-east and north-west; perhaps because the Inner and Outer Earthwork have come together here, or perhaps this is just an elaboration around the southern entrance.

The notion that this feature dug by Boon as the 'Town Wall ditch' was actually an inner ring of the Inner Earthwork, if only as a gravel quarry, correlates with Boon's own description where he found early deposits in the lip of the ditch containing 'early micaceous cooking-pot, … a small necked bowl very similar to specimens from below the bank of the Inner Earthwork or from Trench B' (Boon 1969, 11), and noticed a layer of 'black material' or black earth which had been seen elsewhere filling the interior of the Inner Earthwork up to its circuit.

Earlier occupation material providing a *terminus post quem* was found under the bank of the Inner Earthwork. No Roman vessels such as sigillata, amphora, Terra Nigra or Terra Rubra were found in the assemblage, except for two small sherds of butt-beaker; but it did include the bases of three pedestal urns of 'quoit' type, which Boon associated with Catuvellaunian penetration into the area, perhaps starting around A.D. 25. Corney re-dated this assemblage, thinking it might have a late Augustan *terminus post quem* (Corney 1984, 251). In the same volume Fulford also considered an even earlier date was possible; for him the absence of Gallo-Belgic and other imports was telling, and except for 'one scrap of butt-beaker … and three other sherds of non-local, but probably British butt-beaker. Strictly, this material is sufficient to suggest a *terminus post quem* of *c.* 15/10 B.C. at the very earliest. Among the coarse wares the rarity of Silchester ware (exceedingly common in Claudio-Neronian deposits) and the comparative abundance of soapy (grog-tempered) fabrics was noted' (Fulford 1984, 233). This view was corroborated by Timby's re-examination of the material suggesting a date at the end of the first century B.C. or early first century A.D. for the construction of the earthwork (Fulford and Timby 2000, 308). A post-conquest Cogidubnian date as Boon originally hypothesised is very unlikely (*contra* Wacher 1995, 273–4).

Trenches H1–5 formed a series of east–west trenches at varying distances out from the Town Wall. Trench H1, the most southerly (probably 61 m south of the South Gate), established in Boon's interpretation an uncut causeway of natural between the two ditch terminals of the Inner Earthwork, with the Roman roadway passing slightly off-centre to the east, and with each re-metalling moving progressively further east (FIG. 6.62). The dark soil in the ditch terminal included four pieces of pre-Flavian samian and a Flavian Dr. 18 platter; however, these layers were not sealed. The conclusion reached was that the Roman road was not respecting and therefore post-dated the infilling of the Inner Earthwork. However, this trench is significantly south of the aerial photographic plot of the 'Inner Earthwork' and there is an ambiguity over whether these ditch terminals were the ends of the Inner Earthwork at all.

Trench H4 (probably 33.5 m from the South Gate, though shown closer in on some plans) was dug across the south road and supposedly the Inner Earthwork bank terminal, though little of the 'bank' appeared here at all, which given the ambiguity of its location might not be a

problem. What we can say from the excavation is that the road overlay a black occupation surface associated with a number of post-holes and a small construction slot. Pottery, including a Dr. 36 cup, was indicative of a Flavian date, again suggesting a *terminus post quem* of the Flavian period for the street system.

The fieldwalking data by Corney showed that the Claudio-Neronian pottery was largely delimited by the Inner Earthwork, suggesting it was extant by then; this was also the case for the pre-Claudian pottery, except for a slight scatter south of this line along the now filled-in or ploughed-out return of the Rampier Copse enclosure (see Exterior Sheet 21; Fulford 1984, 79–83).

CONCLUSION

The most recent assessment of the dating of the Inner Earthwork construction here is at the end of the first century B.C. or early first century A.D. from material sealed by the bank. Because Trench J did not bottom the Inner Earthwork, and was too far out and was actually cutting another feature, we do not have a date for the infilling of the ditch here. Ultimately the fine detail of all of the ditches south of the South Gate is very poorly understood.

THE NORTH-EAST ANNEX

HISTORY OF INTERVENTIONS

1988 Water main (Fulford *et al.* 1997, 158).
c. 1979 Amphitheatre contour survey (Fulford 1989c, fig. 2).

DESCRIPTION AND DATING EVIDENCE

A number of early ditches were observed in the water main watching-brief, and the geophysical survey gave these greater form and direction, revealing a new exterior defensive line which followed the contour of the gravel terrace edge. Where the pipeline cut through the defensive line there were three parallel ditches, here called the 'Northern Link'. Correcting for the angle at which they crossed the pipeline, these were from west to east: [Ditch A] 2 m wide and >3 m deep (309–11 m along the recorded section of pipeline from its north-west end); [Ditch B] 3 m and >3 m deep (314–18 m); and [Ditch C] 8–9 m wide and >3 m deep (323–34 m). None were totally bottomed. Ditch A appears to be stratigraphically later than B.

The fluxgate gradiometry showed the main inner Ditch C continuing into the field and a narrower outer ditch, which could be either A or B. A little additional geophysics was undertaken to clarify matters with an electrical resistance survey and various GPR transects undertaken by Fry (2010) (FIG. 9.5). The main Ditch C can be seen in Transects 1–4 as features 1A, 2B, 3A and 4A. In Transect 1 this appears to be a fairly flat-bottomed ditch, 8 m at the top and *c.* 2 m wide at the bottom, with an estimated depth of 3 m, which matches well with the water main section. However, the profiles in Transects 2, 3 and 4 were a little narrower reducing to 5 m wide and 1.5 m deep, and suggested a more V-shaped profile (indicated by the 'bow-tie' response given). Again only a single outer narrower ditch could be seen in Transect 1 (Feature 1B), as in the magnetic data, and it had a similar depth but more V-shaped.

The only dating evidence was that the 'uppermost fills of two of the three ditches were of early to mid-second-century date'. Fulford has speculated the ditches might be Early Roman or Late Iron Age in origin. The main Ditch C cut a large charcoal spread about 0.15 m thick.

Perpendicular to these parallel ditches was another aligned north-west to south-east, potentially parallel to the circuit of the Inner Earthwork within the Town Walls. It was seen in the pipeline at 422 m and was *c.* 6 m wide. This had good dating material recovered from it, with a Nauheim-derivative brooch, and a large ceramic assemblage of mainly pre- and early Flavian material, but with a significant tail of later second- and early third-century pottery.

To the east of the Amphitheatre there is also a major ditch rarely commented on, which is

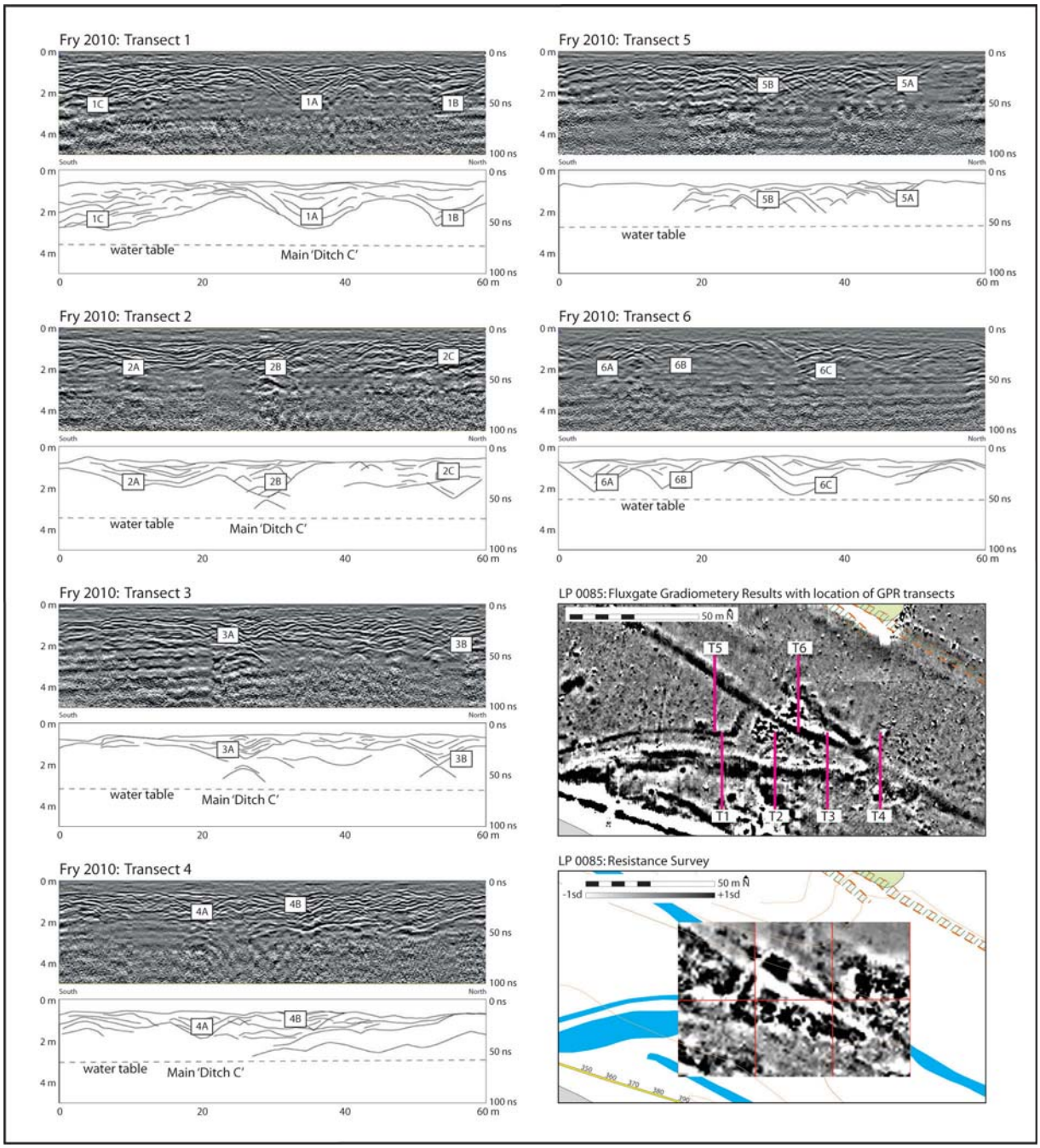

FIG. 9.5. GPR and earth resistance survey of the North-East Extension (after Fry 2010).

still perfectly visible behind the eastern stand. A contour survey conducted during Fulford's excavation shows it clearly (Fulford 1989c, fig. 2). However, a section through the western bank showed that there was no comparable ditch on that side, so its function was not as a quarry for the upcast of the Amphitheatre's banks. This ditch is quite possibly part of a continuation of this outer circuit, hooking around the Amphitheatre, and thereby suggesting it is later in date (though it is just possible the Amphitheatre was constructed later, nestled into the corner of an earthwork). Isaac Taylor's map showed this ditch not only full of water, but also continuing to the south-west, heading towards the Town Wall, though his plan has the Amphitheatre twisted clockwise a little too much (FIG. 3.3). If the ditch headed off in this direction, it would plausibly line up with the extension seen coming off the Inner Earthwork inside the town leading up to the temple area.

CONCLUSION

The 'Northern Link' and North-East Annex appear to create an extension to the Inner Earthwork. Since the earthwork hooks around the Amphitheatre it probably (but not certainly) has a Neronian *terminus post quem*, and it was in another section already being filled in by the early to mid-second century.

THE OUTER EARTHWORKS (SANDY'S LANDS)

HISTORY OF INTERVENTIONS

1909 Sections I, II and III (St John Hope and Stephenson 1910).
1939 Sites H, J and K (Cotton 1947, 137–8).
1952 Section cut back during road widening of Wall Lane (Boon 1969, 16).
1956 Trench Fb (Boon 1969, 19).
1978 Trench 10 (Fulford 1984, 26).

DESCRIPTION AND DATING EVIDENCE

The earthwork survives in a substantial form in its Sandy's Lands stretch, but is reduced in size to the south, and thereafter there is no surface trace until it re-emerges around Rampier Copse. One question to ask is: was it completed but levelled in this section around the exit to the west, or was it never completed in the first place?

In 1909 three sections were cut through the Outer Earthwork to the north-west of the town. No locations of the trenches were published, but there are clear pencil marks on an OS map in the NMR. 'The ditch on the outside of this earthwork varied considerably in depth: at one point it had been carried down to a depth of [3.35 m], but nothing was found in it except a few fragments of very rotten pottery' (St John Hope and Stephenson 1910, 317–18, fig. 1a–b). While not reported at the time, in Reading Museum some material labelled as coming from the 'Outer Earthwork rampart second cutting' is likely to come from one of these. No context is provided, but it is mainly later first to early second century (sandy wares and sandy grog flint-tempered wares), though it includes four fragments of Silchester ware (pers. comm. J. Timby).

In 1939 Cotton excavated a section through the Outer Earthwork at a location which appears to be identical to one of the Antiquaries' trenches, and may have been a re-excavation of it.

> [At Site H] the bank is only [2 m] high, and it was found to be of very simple construction. A small primary mound of dirty gravel formed a core on the old gravel surface, and was capped with layers of clean gravel. The rest of the bank had been built up by tips of mixed gravel and peaty turf which had probably been basketed up from the ditch, or thrown up from scoops or quarries inside the bank. Traces of these quarries still exist in areas which have not been cultivated. On Site H the primary mound finished at a straight line just before the inner lip of the ditch, and originally a small dry-stone wall must have revetted it along this line. This had been found in position in some of the earlier sections, but in others, as in this case, the stones are now in the silt of the ditch. No traces of timbers were found. Only part of the ditch could be excavated owing to the flooded conditions of the ground as in this area it is cut down into London Clay. (Cotton 1947, 137)

No pottery came from the bank; from the late layers of the ditch silt came some early Roman pottery.

Site J–K was excavated on the interior slope of the same bank slightly to the south. In this section the core of the bank was of turf or peat, but with traces of tip-lines comparable to Site H. Again the primary build-up of the bank was devoid of finds. In the ploughed-out tail was found a 'Belgic plate' and 'a small pocket of occupation material lay on the tail of the bank which yielded a little pottery of Claudian date' (Cotton 1947, 138).

1952 saw road widening in Wall Lane. Here Boon observed a humic layer between the two main gravel dumps of the bank, suggesting the earthwork had been deliberately heightened at

some point (Boon 1969, 16 and pl. VIb). This is consistent with Cotton's description of the bank being made from first a dump of dirty gravel, then of much cleaner gravel.

In 1956 Boon's Trench Fb (LP 3540) provided few additional details except for confirming the presence of the counterscarp of the outer enclosure, and a perpendicular modern feature, perhaps an earlier projection of the northern field-boundary of LP 5333, though it pre-dates the tithe maps.

In 1977 Fulford's Trench 10 (LP 4172) revealed 'a wide, flat-bottomed ditch no more than 1.0 m deep below the present ground-surface. The outer edge of this feature was some 12 m west of the fence-line dividing LP 4172 and LP 5859' (Fulford 1984, 82). The shallowness of the ditch, compared with the 3 m depth found by the Antiquaries, made Fulford conclude that the earthwork at this point simply had never been completed. On the other hand, a note of caution is needed about these rapidly cut and backfilled trenches as others dug on the same occasion were under-excavated, failing to observe features cut into the gravel which the geophysics now demonstrate exist (see Fulford Trenches 1, 8, 9, 11).

In terms of dating Fulford believed the Sandy's Lands earthwork was 'almost certainly of pre-Roman date and was definitely in existence before the later first century when the street-grid was laid out' (Fulford 1984, 83). In doing so he was pushing the dating earlier than either Boon or Cotton. The basis of the argument was that the street-grid was perceived as going out to this point and stopping, providing a limit (a view contested below). The other argument was that since there was so little pottery in the earthwork, it was likely to have been constructed earlier rather than later.

DISCUSSION

The geophysics added a new dimension to the dating of this earthwork. Fulford had concluded it must pre-date the laying out of the Roman street-grid since Boon's reconstruction showed roads filling out the whole area Cotton had explored up to the Outer Defences (LP 5567, 6472 and 6667). Cotton had carefully traced the streets here, starting with the cross-roads of a north–south and an east–west street, and then traced the road to the west which seemed to go off at a slightly imperfect angle to the grid deviating to the south (Exterior 9). This she followed with exploratory Sites J and K which appeared to show the road continuing undiminished right up to the bank and not obviously terminating. Alas, no excavation was undertaken to see if it went under the bank. The geophysical evidence suggests it did.

The gravel roads unfortunately do not show up directly on the fluxgate gradiometry as their metalling has exactly the same magnetic signature as the gravels of the plateau from where it was derived. Instead, the best way to trace a road is by searching for road-side ditches. Within the results a faint linear feature can be seen continuing along the same line as the southern side of the roadway on the western side of Sandy's Lands bank (Exterior 13, LP 4172, FIG. 6.40, Feature 9). This linear also appears to have at least two features running off it at 90 degrees; these relate to the late first- to early second-century cremation cemetery which was excavated in 1979 by Corney (1984, 293–7). Curiously the distance apart of these two perpendicular linears is the same as the width of the insulae which were being laid out in the Flavian era within the town. The rectilinear enclosure with the cremations to the west and the small shrine-like buildings within it show a planned layout pre-dating the enclosures and paddocks constructed later aligning with the main road to the west (FIGS 6.38–40, 17.1–2; see also discussion of Exterior 13, p. 210).

Since the earthwork is still upstanding over the line of the road, it would appear logical to argue that it post-dates this road extension to the street-grid; this suggests the bank is post late first to early second century.

CONCLUSION

Cotton observed that her sections at Site H showed no major variation from those excavated by Karslake and Challoner-Smith around Rampier Copse, leading her to assume they were 'of one build and plan' (Cotton 1947, 138; see FIG. 9.4). The ditch is certainly of a similar form, though

the banks around Rampier Copse are larger in one place where Cotton sectioned it, but Fulford's work would suggest not all of it had been excavated to such a depth.

The key evidence for the dating of this part of the Outer Earthwork is its intersection with the Roman street extending out from the grid which Cotton excavated. Since traces of it can be seen on either side of the still-upstanding bank, it suggests the bank is later than the road. If the road is an extension of the street-grid then it is Flavian or later in date. The cremation cemetery that is positioned in relation to the road is also late first to early second century in date, which would be consistent with the street, making the bank later. Late first- and early second-century material was found from the Antiquaries' section of the rampart; this would also be consistent with this dating. However, it would not fit as well with Cotton finding just Claudian material on the tail of the bank. Some modern excavation to corroborate this would be highly desirable.

THE NORTH-WEST ANNEX (aka 'THE PRIMARY EARTHWORK')

HISTORY OF INTERVENTIONS

1956 Trenches D, F, G and Site C (Boon 1958a, 17–20) and (Boon 1969).

DESCRIPTION AND DATING EVIDENCE

This defensive line in LP 4172 had already been recorded on Maclauchlan's plan with hachure marks, suggesting it was still a visible earthwork in the mid-nineteenth century (Maclauchlan 1851). It has long since been ploughed almost flat, but is still just visible in the LiDAR data. Boon envisaged it as the earlier outer circuit of the town, which at a later date was reduced in size by the construction of the Sandy's Lands bank; however, the geophysical survey has cast the existence of the southern section of Boon's 'primary earthwork' into doubt. The fluxgate gradiometry data would tend to suggest the feature turns back into the town to rejoin the Sandy's Lands earthwork making it unquestionably a secondary feature or annex. However, the case is not watertight as the RCHME aerial photograph published by Boon does faintly suggest its continuation on his proposed line through LP 3540 (Boon 1969, pl. IIb), though no trace of it appears in another which otherwise shows lots of negative features (Boon 1974, 52, pl. 9).

From Boon's Trenches C1 and D we can see the ditch is 6.7–7.3 m wide and 1.75–1.98 m deep, V-shaped with a short flat bottom (FIG. 9.4), so much smaller than the other sections of the Outer Earthwork. The bank was on the inside, and 'about [6.1 m] to the rear of the scarp lip of the ditch appeared two irregular, trench-like features, probably construction-slots for some kind of timber building at the rear of the bank, since a few iron nails, up to [0.09 m] long, were recovered from the filling of the larger hollow, and others lay around the smaller one' (Boon 1969, 18–19). The geophysics suggest that in some areas pits were dug into the rear of the bank.

Trench G (LP 4172) was dug to confirm the line of the ditch. The upper filling yielded later Roman pottery (Boon 1969, 19).

Trench Fa (LP 3540) was dug by Boon to confirm the line of the earthwork in a direction which is now contested. No linear feature shows up here on the geophysics (see Exteriors 13 and 17). Three small sondages were dug which revealed material, but the evidence for the presence of a major ditch and bank is decidedly ambiguous and based on significant interpolation. No full ditch or bank profile was sectioned, though negative features were discovered and some Claudio-Neronian pottery recovered suggesting occupation in the area (Boon 1969, 19, pl. X). The trench was barely mentioned in his other interim statement (Boon 1958a).

The best dating evidence for the ditch came from Site C, a series of five trenches dug for Boon by Arthur ApSimon. While no published plan exists, their location and shape has been reconstructed from the published sections, partial plans, some measurements provided, and the position of geophysical anomalies; everything seems to fit together reasonably well. Trenches C1–4 were sited to establish the relationship between the road and the 'primary' Outer Earthwork. Here the dating evidence suggested the infilling material of the ditch included Antonine to fourth-century material (C1). In Trench C2 an early filling included early to mid-third-century material (Boon 1969, 20).

CONCLUSION

The construction of the V-shaped ditch with a narrow flat bottom and a wooden rampart is undated. Logically, given its revised course, curving back on to the Sandy's Lands Outer Earthwork, it should post-date the latter. The Antonine and later material in the ditch fill may suggest a Flavian or earlier date, but it is a very moveable feast.

THE OUTER EARTHWORKS (CLAD GULLY)

HISTORY OF INTERVENTIONS

1978 Trenches 1–2 (Fulford 1984, 26, 81).

DESCRIPTION AND DATING EVIDENCE

The earthwork was observed by Maclauchlan (1851) and represented as a straight dyke along the north-east edge of the plateau, although the actual edge of the gravel terrace wavered around a bit and was more closely followed by the newly revealed North-East Annex earthwork. With the path of the latter now shown, the former looks like a 'tidying up' or straightening of the former. Maclauchlan showed it running the full length of the copse from the Amphitheatre to the northern point and possible gate; however, he only dotted it in for the final northerly stretch to a gap after which it becomes the Sandy's Lands earthwork on the other side. Two rapid trenches were excavated to investigate this during Fulford's brief campaign in 1978.

Trench 1 (LP 0004) was 15.5 m long; but though it was dug to 1.6 m, the profile of the clays and gravels only suggested to Fulford 'the kind of soil profile to be expected where the plateau-gravel has been eroded to expose the underlying clay', rather than a bank and ditch (Fulford 1984, 81). However, the geophysics allow little doubt that there was an earthwork complex linking the upstanding bank to the immediate south-east of the trench to the entrance seen in the geophysics and aerial photography to the north-west.

Trench 2 (LP 0085/LP 2088) was further to the east, revealing a ditch 6 m wide and 1.7 m deep; however, this was inside rather than outside the presumed course of the bank. Charcoal from a layer at the bottom of the ditch from mature oak and hazel or alder gave a radiocarbon date of 930 ± 80 bp (A.D. 1020) (HAR3422). The interior ditch is therefore late Anglo-Saxon or just post-Norman conquest in date (Fulford 1984, 81), and with the Town Walls to the south would have made a large solid stock enclosure which it would be tempting to associate with the twelfth-century re-use of the Amphitheatre (Fulford 1989c, 193–5). The presence of such an enclosure would not be entirely dissimilar to the deer pale to the south-east of the town. However, the key question is: was there ever a major ditch on the north side of the supposed line of the bank? None was found in this rapid digging and backfilling of a trench within a single day. Is it possible an outer ditch was simply not recognised? This appears to have happened in Trench 1, and it certainly happened in Trenches 8 and 9 towards the south-east of the town; and relatively clean re-deposited gravels can be very hard to identify sometimes. The geophysics do not suggest a major earthwork comparable to that at Sandy's Lands or Rampier Copse continuing across the stretch where Fulford's Trench 2 was; but the LiDAR does show a straight bank along this alignment, and a small earthwork is visible along parts of the field-boundary.

CONCLUSION

A straight linear earthwork probably but not definitely existed along the north-east edge of the gravel terrace. Inference for date does not come from direct evidence, but from seeing it as linking up to the Sandy's Lands earthwork at the north-west end, and running down to the Amphitheatre, suggesting it post-dates the latter.

THE OUTER EARTHWORKS (RAMPIER COPSE)

HISTORY OF INTERVENTIONS

1900	Unlocated excavations (Karslake 1910).
1909	Two trenches (St John Hope and Stephenson 1910, 318; 1911, 264–5; Boon 1969, pl. IX).
1939	Site L, 3 locations (Cotton 1947, 138–40).
1978	Trench 11 (Fulford 1984, 26).

DESCRIPTION AND DATING EVIDENCE

These earthworks are the largest surviving and are significant in scale. Here the outer earthwork stands at its best some 5.5 m high with a deep ditch and a marked counterscarp, covered in trees. Cotton noted that in living memory it had always been thus; there was no prior record of cultivation in the copse. The main questions regarding the earthworks are: first, what date is the circuit which is presumed to continue round from the Sandy's Lands earthwork; and secondly, does the bulge in the earthwork represent the inclusion of an earlier enclosure, or is it just a salient projecting out?

The 'enclosure' was first recorded in the mid-nineteenth century: 'on the south side is a very large earth-work, extending in a half circle from the walls, and enclosing a considerable space. It is so considerable, that, although it seems hitherto to have escaped the notice of antiquaries, it no doubt filled an important place in the military defences of the town' (Wright and Fairholt 1845, 151). The way they were first mapped by Maclauchlan (1851, reproduced in FIG. 3.6) appears slightly different to the way they are represented on the current generation of OS maps. Over time the projection of the hypothesised Rampier Copse enclosure has got more and more exaggerated, with sharper angles.

The positioning of the Antiquaries' trenches varies slightly from that on Boon and Cotton's plans, as the locations shown here of the Antiquaries' trenches have been taken directly from pencil marks on the original Antiquaries' OS map now archived in the Historic England Archive (Hugh Braun Collection).

Karslake excavated at unmarked locations in 1900, though he did not publish until ten years later, and the Antiquaries were silent about his work in their lectures. He dug between LP 5333 and LP 2900, which he believed to be an entrance through the Outer Earthwork through which the road to Old Sarum went. He described the entrance as being '… protected by a crescent-shaped outwork. The original roadway passed round this outwork and ascended by a fairly steep slope over the inner embankment' (Karslake 1910, 331). It is difficult to know what he was observing to interpret this outwork, as usual his failure to publish plans make evaluation of his work difficult. He also dug into the main defences, saying that 'burials seem almost continuous on the inner slope of the mound'. His report described one cremation or pyre site, containing a cinerary urn, glass bottle and hobnail boots; this was said to be 'typical of the rest'. He also mentioned some wickerwork retaining walls for the earthwork in the vicinity of springs appearing at the bottom of the ditches. That there were cremations cut into the bank suggests a *terminus ante quem* of perhaps the later first/second centuries A.D. (Karslake 1910, 330).

The Antiquaries dug two sections in 1909 which the excavators felt were 'unsatisfactory' in answering their questions. The second more eastern one had the longest description:

> on its northern face nearly at the base was found a hole ringed with flints, the floor covered with burnt ash, and filled with broken pottery, no two pieces of which would join together … on the southern face of the mound were indications of a cremation, a platform having been cut in the side of the mound for the reception of the body. On this platform was a layer of wood ashes in which were calcinated bones and numerous fragments of bronze burnt out of all shape. … the ditch outside the mound, although carried down to a depth of [3.3 m], yielded nothing but a few fragments of coarse sandy pottery, very decayed and rotten. (St John Hope and Stephenson 1910, 326–7)

While published as a generalised profile in the original report, Boon recovered the original 1909 wash-drawings in Reading Museum and redrew them (Boon 1969, 17, pl. IX).

Cotton excavated into the back of the Rampier Copse earthwork in 1939, in one of her three Site L trenches (Cotton 1947, 138). Her evidence is fundamental to the dating of the bank, so is worth quoting in full:

> In this area a small hearth pit had been cut into the tail of the earthwork. It contained charcoal, a piece of hard tile, a few fragments of the hand-made native ware, and part of a rim of a butt-beaker, apparently of local manufacture. However, the evidence obtained from this pit cannot be used in determining the building date of the earthwork, as the pit must have been cut after the bank was built, even if the interval was short. But underlying this pit, and over an area extending beyond it, a scoop or hollow occurred which contained pottery. This occupation displaced the original turf, was contemporary with it, and was sealed in part by the tail of the bank. It was probably a temporary bivouac of the builders of the earthwork. No small finds, brick, or red-glazed wares were found. The pottery though having a most pronounced native and Belgic *facies* did contain the base of a Claudian jug in association with the butt-beakers. The pottery from the 'old turf' in the area was small in quantity and was associated with two sherds of soft red-glazed ware that could not be dated, and with much hard red brick. The wash of the bank over these levels contained a little pottery and much red brick, and in addition a rim of soft red-glazed ware.
>
> The tail layers of the bank contained no pottery, but many pieces of well-baked red Roman brick were found. This brick is in position in the primary build of the bank … The evidence of this brick, taken with that of the pottery, even though this is so small in amount, precludes a pre-Claudian date for the foundation of the outer earthwork. (Cotton 1947, 138–40)

Cotton concluded that the earthworks were Claudian at the earliest, and possibly Boudican. Boon rejected and countered this by suggesting that Cotton's trench had only dug into a secondary phase of the bank, suggesting that the 1909 sections showed a possible earlier primary bank which Cotton had not dug into (Boon 1969, 17, pl. IX). Fulford re-examining Cotton's pottery said it included a jar of Alice Holt type which would now be dated A.D. 60–150. But again this may all be from the quarry scoop or secondary phase to the bank rather than a sealed deposit dating the bank (Fulford 1984, 80).

Cotton also dug a smaller trench to the east-south-east where a modern path passed through the earthwork and showed that the outer ditch continued there, so it was unlikely to have been an ancient entrance.

Fulford's 27 m long Trench 11 (LP 6805) tested the possible south-eastern side of the hypothesised Rampier Copse enclosure. No clear ditch was found, though the high-point of the ridge it crossed comprised a 1.5 m-deep layer of grey sandy loam with flecks of charcoal for a 12 m stretch, suggesting it was not entirely natural. Fulford also cited infra-red photographs from the National Monuments Record which showed a discolouration along this ridge: 'Whether this marks a natural or man-made feature not recognised in the 1978 section remains unclear' (Fulford 1984, 82–3).

The fluxgate gradiometry did not show a clear bank and ditch, but was suggestive of a boundary, if only because the hypothesised 'interior' was markedly free of features in comparison to the 'exterior'; like the Frith, superficially there seemed to be little within it. LiDAR data suggested a raised bank originally forming an earlier enclosure, but again there was no trace of a ditch. Five GPR transects were undertaken to investigate this by Fry (2010) (FIG. 9.6). One (T15) crossed the supposed bank close to Fulford's 1978 excavation trench. In the middle of the transect an increase in noise consisting of many hyperbolae might represent the compacted gravel of a bank (Feature 15A). This was corroborated by a small earth resistance survey which showed a high resistance feature running through this area. There were also tentative traces in the GPR of ditches on either side of this (15B and 15C).

The transect to the north of this (T14) similarly showed a potential compacted hard-core bank (14A), and also another negative feature (14B) which correlated with a large magnetic pit in the fluxgate gradiometry results.

However, the possible bank was absent from the next transect to the north (T13). This transect

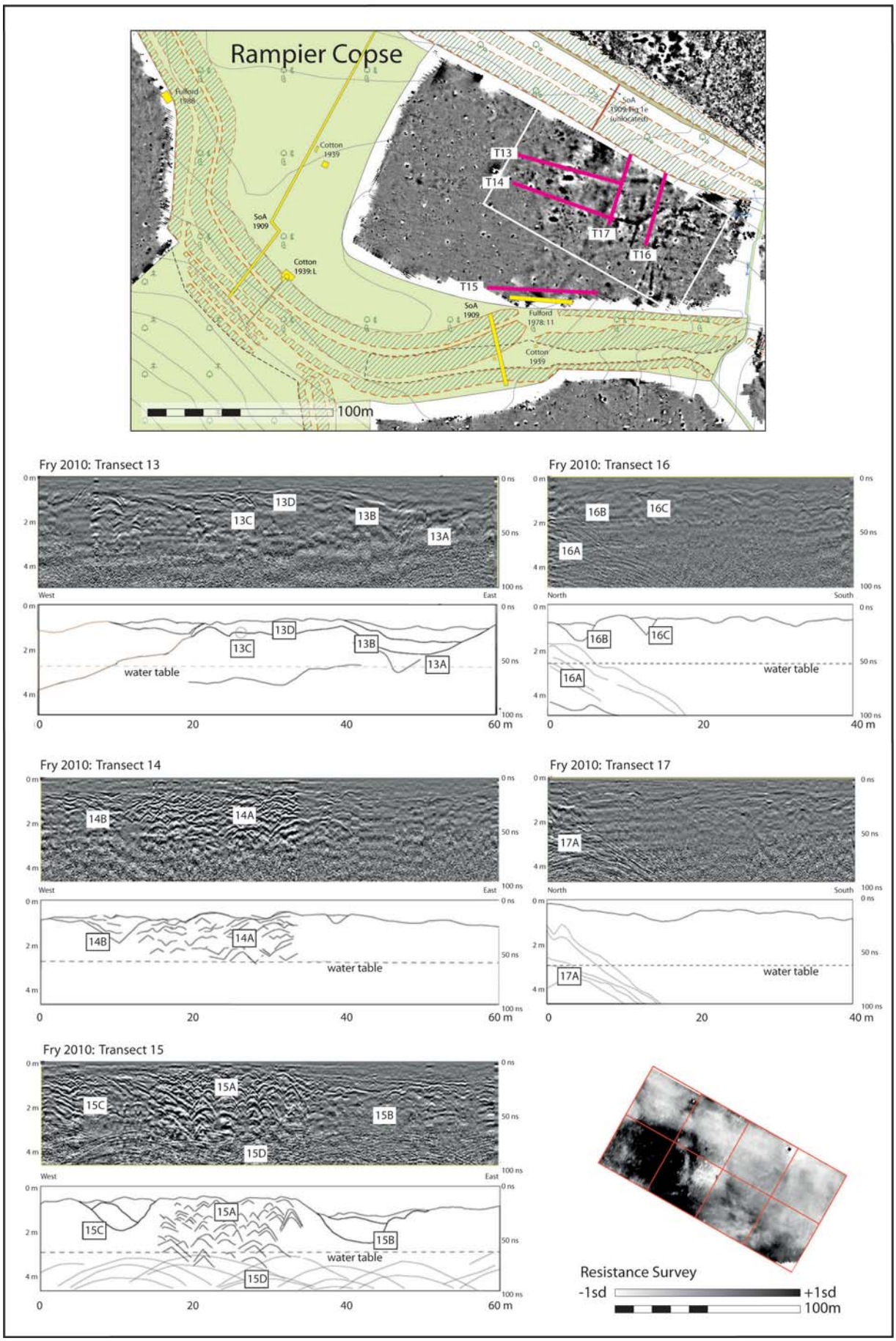

FIG. 9.6. GPR and earth resistance survey within the Rampier Copse Enclosure (after Fry 2010).

had been deliberately positioned to capture the area where a projected corner of the Roman street-grid, subsequently cut off by the construction of the Town Wall, intersected with the possible Rampier Copse enclosure boundary. There are hints of these streets in the fluxgate gradiometry, and there was the possibility that here the road might have come to an entrance to the enclosure, with two large pits perhaps indicative of some kind of entrance structure. This transect (T13) was positioned to pass through this location. The road did not show in the resistivity and neither did the surface of a road show in the eastern end of the GPR transect. A road might have been expected to look like high-amplitude noise, but instead a negative feature was seen, possibly representing the elusive ditch of the enclosure (13B). While no road surface could be confirmed, neither could the trace of a compacted gravel bank be seen in the data (13C) in contrast to the other two transects (Features 14A and 15A), suggesting there may yet have been an unmetalled entrance-way.

CONCLUSION

The first question is: was there an earlier Rampier Copse enclosure? The answer is 'probably', though the south-west side is clearer than the north-east one. The geophysical data texture within is quiet and qualitatively different from that around, suggesting a distinctive use of space; and there is the hint from the GPR and resistivity data of an entrance-way on the eastern side. Given that, the incorporation of this enclosure into a larger defensive circuit would suggest that a secondary refurbishment of the south-western part of the earthwork upon incorporation would not be unlikely, and this is what Boon claimed he could see in both Cotton's and the Antiquaries' excavations. However, from Cotton, it is quite clear that this secondary phase incorporated brick, making it post-conquest in her eyes (though some earlier brick was found in the pre-conquest phases of the Basilica excavation); and the A.D. 60–150 *terminus post quem* provided by the Alice Holt jar provides a comparable date to that of the Sandy's Lands earthwork. This runs counter to Fulford's preferred narrative; like Boon, he would like to see a pre-conquest date for the outer earthworks as a whole (Fulford 1984, 83).

THE SOUTH-EAST ENCLOSURE

HISTORY OF INTERVENTIONS

c. 1914 The Beeches 'entrance-way' (Karslake 1914).
1978 Trenches 3–9 (Fulford 1984, 26, 82).

DESCRIPTION AND DATING EVIDENCE

There has occasionally been imagined to be a major defensive circuit to the south and east completing the ring created by the Clad Gully – Sandy's Lands – Rampier Copse circuit. This idea arose around 1914. Maclauchlan (1851, 230) had never seen any evidence for earthworks to the east and south-east; this view had been echoed in the final Antiquaries' season where they recorded 'on the east there are no definite remains' of an outer defensive work, possibly because they lay under the later Town Wall on that side (St John Hope and Stephenson 1910, 317). This view was repeated by Williams-Freeman in his plan of the Silchester entrenchments which showed no such earthwork; but in his description he asserted that 'a strong bank and ditch … encircled the Roman city on all sides … embracing an area of about 200 acres' (Williams-Freeman 1915, 318–19).

Meanwhile, Karslake was continuing his investigations. Having excavated around Rampier Copse in 1900 and explored what he believed to be an Iron Age entrance-way there, he went on to excavate what he believed to be a gateway through the hard-to-find (and perhaps imaginary) eastern Outer Defences. The site for this was 'The Beeches', a small copse, where excavations began some time shortly before 1914. His work firmly established his belief in a series of encirclements around Silchester, with the Town Walls being the innermost circuit, surrounded by

a road, then by the outer earthwork, and finally by an even larger circuit fossilised in the Silchester parish border, which had been neatly reproduced with the entrenchments by Williams-Freeman. This thesis Karslake developed in a series of articles, starting with a lecture to the Antiquaries in 1920 (Karslake 1920) and embellished over the years where he added Grim's Bank to his interpretation (Karslake 1933).

Karslake purported to find within the Beeches both clear evidence for 140 m of the Outer Entrenchment, and also a new entrance-way. Alas no plan was published, and all we have is a curious description of an in-turned entrance-way with the earthwork projecting inwards 15 m, and the ditch similarly turning in, with one, or perhaps two circular entrenched enclosures, 15 m diameter, serving as 'a sort of stockade tower guarding the entrance; in advance of it' (Karslake 1914). Williams-Freeman visiting the site not long after saw three parallel banks about a metre high and lots of broken brick similar to those used to build Silchester Manor Farm. Given the adjoining field was then called Kiln Close he suggested there might have been medieval brick-kilns and clay-pits there. He was unable to relate his observations to Karslake's findings and expressed some scepticism about them (Williams-Freeman 1915, 324–5). Fulford thought Karslake might have been confused by the conflation of the medieval Park Pale and the cutting of the brook passing through here (Fulford 1984, 80), while Boon (1974) simply avoided mentioning it at all. Karslake said he found Roman pottery including amphora, so there may well have been genuine deposits there, or he could have confused the medieval brick with Roman brick and amphora. Visiting the Beeches Copse today, the earthworks he mentions are not obvious, and without his plans the LiDAR offers no consolation or revelation.

Whatever the reality or unreality of Karslake's entrance, the concept of a complete encirclement became established in the thinking on Silchester. Cotton tacitly accepted the assumption of a continuous outer earthwork enclosing *c.* 93 ha, but recognised the line to the east was 'somewhat obliterated' (Cotton 1947, 137). Boon himself was a firm believer: an Outer Earthwork towards the east appeared on all the major plans of the site he had prepared. He was confident in it along the south-east section through LP 1100 and 3000 and between 4426 and 6530 (the latter being along the same line as the Park Pale), but thereafter admitted the traces were unclear (Boon 1969, 15). Various alternative suggestions were made for the concluding line of the hypothesised earthwork from The Beeches copse to the Amphitheatre, including by Corney (Goodburn *et al.* 1976, 370).

It was hoped Fulford's campaign in 1978 testing the line of the various suggestions with rapid machine-cut trenches would provide conclusive evidence for the earthwork's presence. Seven trenches were excavated in this area (Fulford 1984, 82).

Trenches 3 (LP 6346) and 6 (LP 4426/LP 6530) tested the northern section of Boon's suggested line and proved negative, both just coming down onto gravel subsoil, even though Trench 6 probably crossed the line of the medieval Park Pale. Trenches 4 (LP 6346) and 5 (LP 6346) tested an old lynchet to see if it was an earthwork, following a suggestion by Goodburn; again both just came down onto clay and gravel subsoil. The final three, Trenches 7, 8 and 9, crossed the line of the earthwork which clearly does exist, to which we now turn.

The aerial photography and the geophysics clearly show a linear earthwork crossing LP 1100 and 3000; but rather than being seen as a continuation of the Outer Earthwork to the east, this appears to be a separate feature. To start with it is less substantial than the Sandy's Lands or Rampier Copse defences; secondly, and most importantly, the ditch would appear to be on the inside of the earthwork, not the outside, putting into question its entire interpretation as a defensive structure.

The earthwork can be traced from LP 7468 passing through Churchlane Copse, and on through LP 0068, 1100 and 3000. The geophysical survey displays the line of the ditch from the contrast between the ditch fill and the surrounding clay or gravel deposits. However, within Churchlane Copse there is a section of upstanding bank surviving; matching up the alignments, it appears to be positioned on the OS to the south of the ditch (FIG. 15.2). This means that rather than interpreting the ditch as part of an outer defensive work, it is perhaps better to see it as a large stock enclosure (see p. 419). On the other hand, a close-up of the LiDAR suggests the OS map might be inaccurate and only some on-the-ground survey and excavation will confirm one way of the other (see Exterior 23).

Returning to Fulford's trenches, three cut across this feature. Trench 7 (LP 6530) found nothing, while Trenches 8 and 9 (LP 1100) found nothing other than a field-drain. This resulted in Fulford dismissing Boon's concept of an Outer Defensive earthwork on this line. The excavations were presumably just too shallow and too rapidly machine-cut and backfilled; the geophysics clearly show the feature exists as a *c.* 5 m wide ditch.

CONCLUSION

To the east and south-east there is no evidence for a defensive work, but there is an earthwork of unknown date with the bank on the inside, significant, but smaller in scale than the Outer Defences surviving to the south-west or north-west. The earthwork is essentially undated, but appears to relate to a rectilinear field-system to the south and is ignored by the medieval Park Pale, so is presumably earlier and therefore either Roman or early Anglo-Saxon in date.

INTERPRETATION

The number of sections dug to examine the earthworks has been numerous, but the quality of evidence is mixed at best. Some trenches are hard to locate; others failed to dig deep enough to find the features; most failed to provide any significant dating evidence. This project has now further complicated the network of earthworks in the immediate vicinity of the town by adding to them. A major new earthwork has now been found north of the town, linking in with a feature discovered during the 1988 water main excavation. The shape of the old 'Primary Outer Earthwork', renamed here the North-West Annex, has changed significantly. The course of the old 'Inner Earthwork' has been revised in its passage in the vicinity of Rampier Copse, as it has in the vicinity of the Public Baths. Finally, earthworks on the south-east and north sides once dismissed by Fulford have been reinstated, if not dated.

It is now appropriate to provide a re-reading of the evidence and to offer a hypothesis of the sequence of development, even if only to provide a model to be disproved or adapted as new evidence comes to light. A summary of the key dating evidence has been provided in FIG. 9.7.

STAGE 1: THE TERRACE-EDGE ENCLOSURES

FIG. 9.8 shows Rampier Copse along with two other enclosures on the gravel terrace edge, that of the Frith (sometime referred to as Pond Farm) and the spur cut off by Flex Ditch. All have very prominent positions on the edge of the gravel terrace.

Rampier Copse

It looks as if there was originally a Rampier Copse enclosure to judge by the reinstated south-east side revealed in the LiDAR, GPR and faintly in the fluxgate gradiometry. It was shown clearly in Colt Hoare's plan of 1818, but needed verification (FIG. 3.4). The northern side of it is unclear. There are two possibilities: the most probable is that its north-eastern side is where the later Town Wall Ditch is, which would make the enclosure around 2.2 ha. However, there is also a slight possibility that the enclosure was much larger; a curved linear anomaly within the geophysical data in the interior of the town could just possibly represent the northern side of it, which would make it *c.* 5.0 ha, but it is probably unrelated. Otherwise this curved feature does not appear to relate to anything Roman in date. The former is more likely. Nothing comes from within the enclosure, but we know cremations and cremation burials took place in the bank.

The Frith (also known as Pond Farm)

Very little is known about The Frith (FIG. 9.8), though it appears to be an oval univallate enclosure, *c.* 160 x 120 m (1.9 ha), with a single entrance guarded by a curved bank on the south-west side. There is no direct dating evidence, but it is assumed to be Iron Age (Williams-Freeman 1915, 326; 1934, 109). There have not been any known excavations, nor does aerial photography or

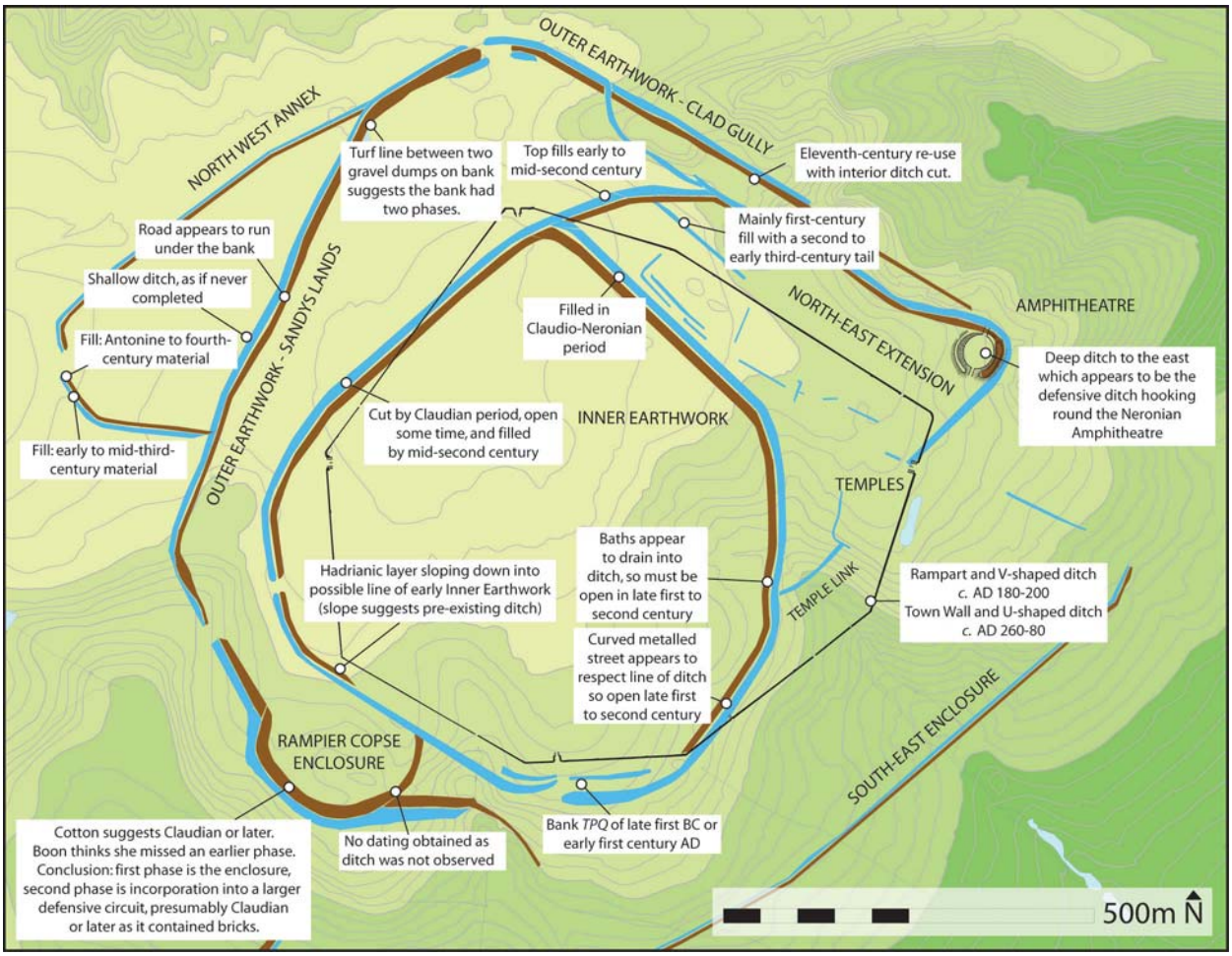

FIG. 9.7. Summary of dating evidence for the earthworks.

geophysics reveal much in the interior. Scheduling notes associated it with Later Bronze Age or Early Iron Age hillforts, though it is not quite the simple oval shape with two opposing entrances of many early hillforts in the region (cf. Cunliffe 1991, 349). Two coins (Gallo-Belgic E and British QA) came from nearby, but not actually from the Frith. Both date to around the Gallic Wars and a little after, so shortly before the foundation of *Calleva* in the late first century B.C.; but both types of coin remained in circulation for a while and are found in later hoards, so they cannot on their own be used as proof of earlier activity (Boon in Fulford and Timby 2000, 163–4, nos 1 and 11).

The Flex Ditch

The Flex Ditch cut off a spur from the plateau top, though the ditch is on the southern side. The ditch is 160 m long and it separated an area of *c.* 7.2 ha. It is now partly built over, and has been repeatedly truncated; no recorded excavation has taken place and there is no dating evidence other than the presumption it is Iron Age. On the southern tip of the spur an excavation revealed a rectangular enclosure, potentially the earliest Late Iron Age occupation in the area. It was excavated by TVAS in 2001–3 (Moore 2011). The ceramics predominantly dated from the first century B.C. to the later first century A.D., though with a small amount of later unstratified material. However, the earliest pottery, early handmade calcareous ware, is not found in published early Silchester assemblages, so suggests this site might pre-date the establishment of *Calleva*. There was only slight evidence for activities within, but that included a smithing hearth and other evidence for secondary smithying. Even though there was no significant occupation debris,

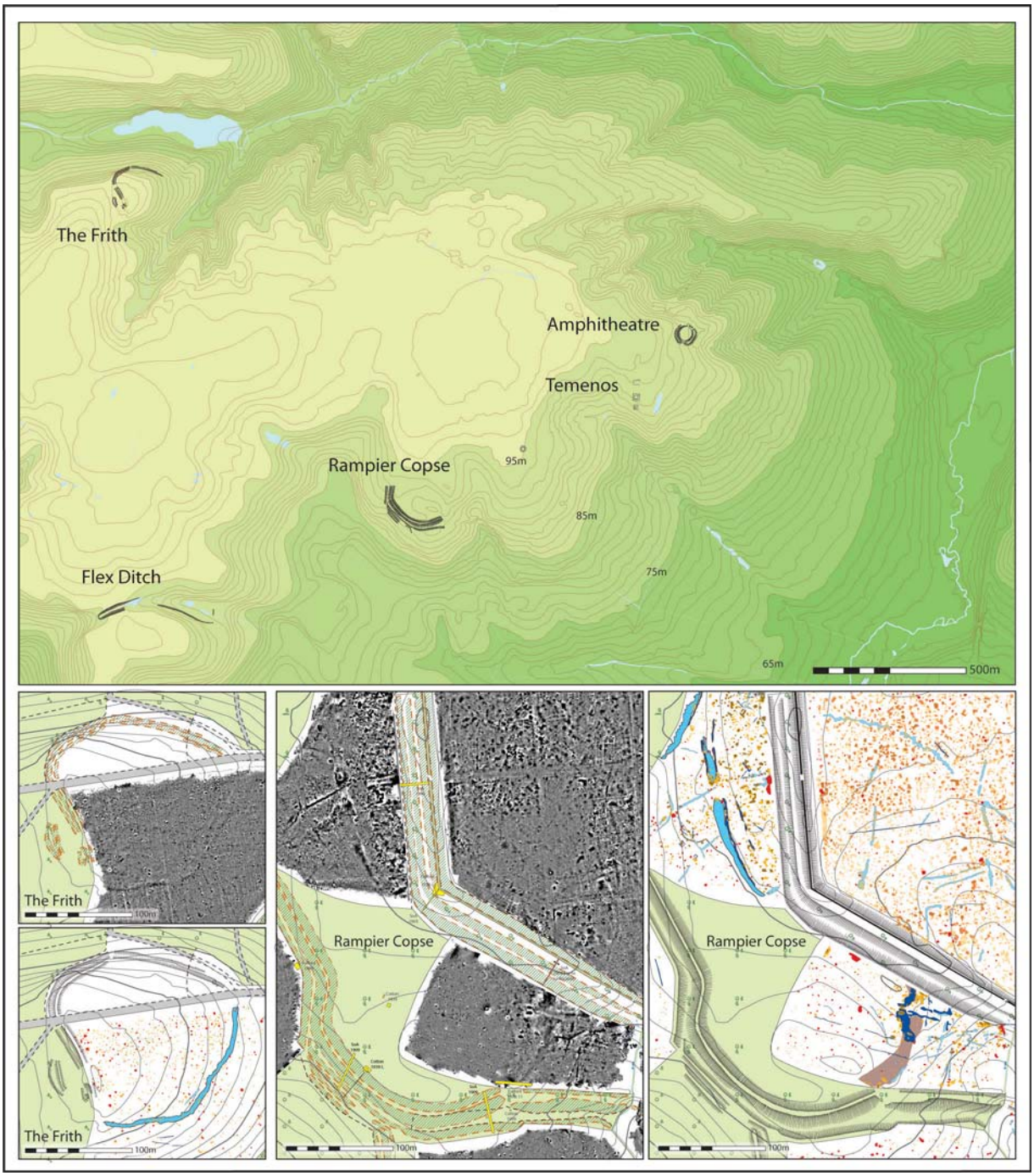

FIG. 9.8. Rampier Copse and the other peripheral enclosures.

ceramics included a number of fragments Timby identified as Campanian black sand amphora, Dr 2-4 or just possibly Dr 1 sp.

The terrace edge

FIG. 9.8 shows how similar the positioning of these three enclosures is on the gravel terrace edge. Both the Frith and Rampier Copse showed virtually nothing within their interiors in the geophysics, suggesting dense occupation was not their purpose. The Insula XXX temple precinct and the Amphitheatre are in comparable positions so have been marked on the figure. Some work on the East Gate on the edge of the temple site produced a British B coin (Boon in

Fulford and Timby 2000, 163, no. 6). The type is important because these gold coins stopped circulating and disappeared from hoards around the time of the Gallic Wars. They are hoarded with earlier coins but never with post-Caesarean coins, as if all earlier, higher-gold content coins were withdrawn from circulation (Creighton 2000, 67–8). It is therefore most unlikely to date to the late first-century B.C. foundation of *Calleva*, but rather represents some activity beforehand. There is nothing pre-conquest known from the Amphitheatre site. In conclusion, the earliest evidence is for a series of non-settlement enclosures on the terrace edge, possibly from the Mid- to Late Iron Age.

STAGE 2: THE CONSTRUCTION OF THE INNER EARTHWORK (LATE FIRST CENTURY B.C.?)

The bank near the southern entrance had a *terminus post quem* of the late first century B.C. or early first century A.D. This is the first large enclosure on the terrace top, slightly slipping off to the south-east. The precise relationship between it and Rampier Copse is not clear, and any evidence has long since been dug away by the Town Wall and Rampart Ditches. It may have been incorporated as a salient projecting out from the Inner Earthwork, or it may have retained its original shape and integrity (as shown in FIG. 9.8).

Several Late Iron Age or Early Roman burial enclosures developed outside the earthwork on the north-west side and possibly also on the north-east side if the two temple compounds are burials, based on analogy with Gosbecks (see p. 380).

STAGE 3: THE NORTH-EAST EXTENSION (NERONIAN?)

The north-eastern stretch of the Inner Earthwork was filled in with Claudio-Neronian material, yet elsewhere the ditch remained open longer. The potentially Neronian Public Baths drained into the ditch in the south-east; to the north-west fills continued to be accumulated into the mid-second century; in the south-west a slope of Hadrianic material suggests a pre-existing ditch was open then at the south-west corner of where the Town Wall was later to be built. It looks as if the defences were enlarged to encompass an additional part of the terrace. I have called this the north-east extension. It is clearest from where it leaves the line of the Inner Earthwork close to the later North Gate and continues across the modern road where it was seen in the water main trench of 1988, and across the fields to the north where it shows clearly in the geophysics. It heads towards the Amphitheatre, and probably curved round it, where a wider ditch is still visible on its south-east side. From there it would have run under modern housing, so is hypothetical, running under Manor Farm and the churchyard until it re-emerges on alignment with another fainter geophysical feature that joins the Inner Earthwork again a little to the south of the Public Baths.

The infilling of Boon's Trench B section of the Inner Earthwork would suggest this was Claudio-Neronian (p. 307). If the defences hooked around it, the *c.* A.D. 55–77 construction date of the Amphitheatre also provides dating evidence for this change. Also the construction of the Public Baths into a now redundant section of the Inner Earthwork bank, but utilising the still-open ditch, would fit comfortably with a Neronian date.

This extension included within it the two temple compounds which may have been Late Iron Age or Early Roman high-status burials. This was happening at the time that the Roman street-grid was developing, with the main north–south street already established, but other lanes still existing on earlier alignments (see p. 347).

STAGE 4: THE EXTENSION OF THE STREET-GRID (LATE FLAVIAN–TRAJANIC?)

At some point development of the new Roman street-grid expanded out of the confines of the Inner Earthwork to the north-west (detail discussed in Chapter 14). The roads, excavated by Cotton, ran over the infilled ditch, marking out an irregular double insula so as to leave the burial enclosures in this area intact without a new east–west road running between them. The

FIG. 9.9. Hypothetical sequence for the development of the earthworks and roads.

infill of the Inner Enclosure a little to the south of where the street-grid extension ran over it was Claudian at the bottom and mid-second century towards the top (Boon Trench A, p. 308).

To the west of this a cremation cemetery was established with a boundary at right-angles to a road leading out to the west, so contemporary or later than it. The cremation cemetery dates to A.D. 80–130 (see p. 375; Corney 1984, 293–7). A later first-century date can be given for this stage of road development.

STAGE 5: ADDITION OF THE SANDY'S LANDS OUTER EARTHWORK (SECOND CENTURY?)

The Sandy's Lands earthwork then cut across the road heading west, cutting it off. The bank still remains over 2 m high at this point, demonstrating that it is later. This provided a new linear earthwork barrier to be seen from the west, cutting off almost the entirety of the top of the terrace. At various points, particularly to the north, it is an impressive monument, fronted with a dry stone wall (p. 313), but at other locations the ditch is shallow at 1 m rather than the 3 m elsewhere, as if it was never properly completed as a defensive line (cf. Fulford's Trench 10). It appears to be protecting the major burial enclosures as development within the town never seemed to come out this far.

When Cotton dug her section through Rampier Copse, she determined it must be post-Claudian because of the bricks caught up within it. Boon believed she was mistaken and must have missed a second phase in which the bank was refurbished, contemporary with the construction of Sandy's Lands Earthwork (Site L, p. 317). The sealing of the road suggests it must be later than the establishment of the cremation cemetery and road in the later first century A.D., but it cannot be dated closer.

The incomplete nature of the work, observed by Fulford, is matched by the observation that by this stage other parts of the old circuit to the south-east had also partly been built over during the extension of the street-grid, so this was never a complete circuit. It remains a puzzle.

STAGE 6: FINAL ELABORATIONS OF THE EARTHWORKS

To the north-east the line of the North-East Extension was straightened by the construction of the Clad Gully Outer Earthwork. Originally a small link appears to have been constructed from the north-east extension bank and ditch to the new outer perimeter following the contours of the hill, but the new straight-line gully probably replaced this. However, the feature is not unproblematic given that Fulford's excavation showed its use or re-use as an eleventh-century boundary, and the earthwork seen in the LiDAR is not large. Like the Sandy's Lands Earthwork, it may not have been completed to full effect.

To the west an annex was built (once called the 'Primary Outer Earthwork' by Boon). By the way it curves back to the line of the Sandy's Lands bank it clearly must post-date it. Its fills, in Boon's excavations, were early to mid-third to fourth century. The turns in the enclosure appear to relate to where the roads to *Spinis* and the west pass through. However, it is also noticeable that the paddocks parallel and adjacent to the road seem to ignore the defensive line, suggesting a chronological mismatch between the two. I believe it makes most sense for them to be late, but ultimately without excavation we cannot be sure. The stretches of the annex earthwork in LP 4172 had a lot of pits dug into their rear; so the likely presence of material culture in pits cut into the bank provides a promising location to excavate to gain dating evidence for the earthwork.

STAGE 7: CONSTRUCTION OF THE TOWN RAMPART (A.D. 180–200) AND TOWN WALL (A.D. 160–80)

Eventually this long circuit was replaced with the much tighter line of the Town Rampart and Ditch which eventually became the Town Wall (see Chapter 8). Some of the earlier Outer Earthworks remained standing to be seen by antiquarians or remain to this day.

CONCLUSION

This reconstruction of the sequence at Silchester, showing incremental development, and making much of the Outer Earthwork later rather than earlier, is rather different to the prevailing notion which sees it as predominantly Later Iron Age. Nonetheless, the evidence to date has been surveyed and presented to support the later date (FIG. 9.7). However, this interpretation is prone to new discoveries and better dating, which is still exceptionally fragmentary; judicious excavation here and there could create a rather different picture.

Pushing the construction of some of the Outer Defences into the Flavian era is not totally atypical. Just to the south in Winchester a later first-century earthwork has been traced under the later second-century rampart on three sides of the town (Esmonde Cleary 2003, 80), and at *Verulamium* there is the Flavian '1955' ditch protecting the developing post-Boudican town (Niblett and Thompson 2005, 53, 150).

CHAPTER 10

THE LINEAR EARTHWORKS

EARLIER PERCEPTIONS

Long noted by antiquarians, these extended raised mounds have been variously interpreted, not only as defences, but also as the foundations of military roads; indeed it is not always clear if Stukeley's *Long-bank* and *Grimesdike* running south towards Winchester actually was what we now understand to be the road (Horsley 1732, 458; Stukeley 1776, 179). Perhaps the earliest useful reference was from Beeke's observations of what we now call Grim's Bank:

> There is a remarkable foss about a mile and half from Silchester on the north-west, which begins about a quarter of a mile to the south of Ufton Church, and runs strait through the whole of the parish of Ufton, Padworth, and Aldermaston, excepting where interrupted in two or three places by boggy valleys of very small extent. The ditch is on that side of the mound most distant from Silchester. The common people call it Grimmers-Dike. (Beeke 1806, 185)

By his era the earthworks were generally being interpreted as defensive earthworks, but confusion did occasionally occur. The great surveyor of the environs of the town, Maclauchlan himself, was caught out. In his work he described three earthworks: two leading southwards, with a third to the north. In retrospect the latter was the Roman road north to Dorchester-on-Thames leading directly out from the North Gate (Maclauchlan 1851, 232–3). He ventured to suppose that they must have been Iron Age, for the simple reason that they were neither straight nor paved, and only seemed to have had a ditch on one side.

These earthworks then remained neglected for a century. Joyce and the Antiquaries left them alone and paid them no attention.

When Cyril Fox wrote an article on dykes in Britain examining three major earthwork systems and finding them all to be post-Roman; he began to wonder if all the great dyke systems in Britain might be the same (Fox 1929, 150). This was rapidly followed up by the journal *Antiquity*'s founder and editor, O.G.S. Crawford, attempting to solicit research and articles on this topic, particularly examining the linear earthworks surrounding the Roman towns of Chichester, Silchester and Colchester (Crawford 1929).

Karslake discussed them in the context of his own ideas about the nature of the defensive circuits of *Calleva*. He interpreted Grim's Bank as too long to be an effective defensive work, so more likely to 'facilitate the collection of *portoria* or customs dues by preventing merchants coming to *Calleva* from the north, from avoiding the town by any circuitous route. Thus these traders were compelled to follow the defined routes, which led to entrances where duties were collected' (Karslake 1933, 208).

The first actual fieldwork to try to resolve matters was conducted by O'Neil, focusing on Grim's Bank to the north. Like Beeke, he noted the apparent discontinuities in the earthwork, such as where it passed over Padworth Gully, but he tested this absence of evidence with an excavation trench which failed to find any positive proof of its existence there. Because of these gaps he interpreted the bank as a demarcation rather than defensive line (O'Neil 1943, 192). He hypothesised a post-Roman date because he saw the dyke as blocking the Silchester to Dorchester-on-Thames road, and there is certainly a curious arrangement where the road passes through and various dykes intrude. He interpreted the earthwork as a frontier line in the context of Britons and Saxons, marking off a Romano-British enclave holding out until Silchester was

finally abandoned (O'Neil 1944). His views were generally followed by others, such as Boon (1974, 78–9, 245) and more recently Yorke (1995, 27).

At an earlier date Karslake had wondered if the parish boundaries of Mortimer West End and Silchester made up the *territorium* or an outer defence of *Calleva* (Karslake 1933). The idea was revived by Biddle (1976, 334–5) imagining long-term continuity in these boundaries as at Winchester and the Chilcomb estate. However, this has been questioned by Dickenson (1977), and, as Astill pointed out, Grim's Bank is not the parish boundary in any case (Astill 1980, 65).

So Grim's Bank was side-lined as a post-Roman feature, and rare mentions of the linears to the south of Silchester generally assumed that they were Later Iron Age, post-dating the creation of *Calleva* in the late first century B.C., but pre-dating the Roman town. Boon's phasing above (pp. 302–4, FIG. 9.1) wove them into his historical narrative with the Frith, Rampier Copse enclosure and Flex Ditch being small enclosures relating to Tincomarus; the Dicker's Farm Dyke relating to his expulsion and the take-over by Eppillus and Verica; and the Oldhouse Lane Dyke relating to the conquest by Epaticcus; and this is where things were left.

FIG. 10.1 shows the evidence for the various linear earthworks around Silchester. Conventionally these are divided into two groups: those to the north-west, made up primarily of Grim's Bank; and the linears to the south and possibly east.

The earthworks are mainly known from standing remains, and much of them lies well beyond the core survey area of the geophysics, but it is inappropriate to talk about the defences of Silchester without discussion of the dyke system around it. The LiDAR data have revealed additional information to the south.

THE EVIDENCE

The evidence is discussed dividing it into the two main areas: Grim's Bank to the north-west and the linears to the south.

GRIM'S BANK

HISTORY OF INTERVENTIONS

pre-1943	Section of the northern stretch by O'Neil (1943, 195).
pre-1943	Section where it might have been in Padworth Gully by O'Neil (1943, 191).
1952	Section of the southern stretch by Gilyard Beer (1954–55).
1978	Section by Berkshire Archaeological Unit (Astill 1980).
2005	Auger transect and sections by Oxford Archaeology (O.A. 2005a; b).

DESCRIPTION AND DATING EVIDENCE

The discontinuous earthwork is shown in FIG. 10.1, which is derived from a combination of O'Neil (1943, 189) and the location of trenches from Astill (1980, 58), with the Oxford Archaeology 2005 trench added on. Various sections have been scheduled (SAM 1005374-6, 100538). The reality of one of the gaps was tested by O'Neil's first trench, which confirmed that the bank and ditch did not exist in the gap created by Padworth Gully. The various trenches showed the width of the bank and ditch to be as follows:

- 1943 trench: 4.8 m bank, 7.8 m ditch, 2.5 m berm, one post-hole interpreted as a revetment.
- 1952 trench: 7.8 m bank, 7.7 m ditch, the line was possibly marked out in turf first.
- 1978 trench: 4.7 m bank, 9.6 m ditch, the line was possibly marked out in turf first.
- 2005 trenches: *c.* 7.5 m bank, 6.0–7.0 m ditch which was 1.35 m deep, burning first.

The dating of the monument remains ambiguous. There is no direct dating evidence, though since O'Neil's excavation the Bank has tended to have been thought of as post-Roman. However, evidence from the pollen from Astill's excavation raised the question whether it did not originate

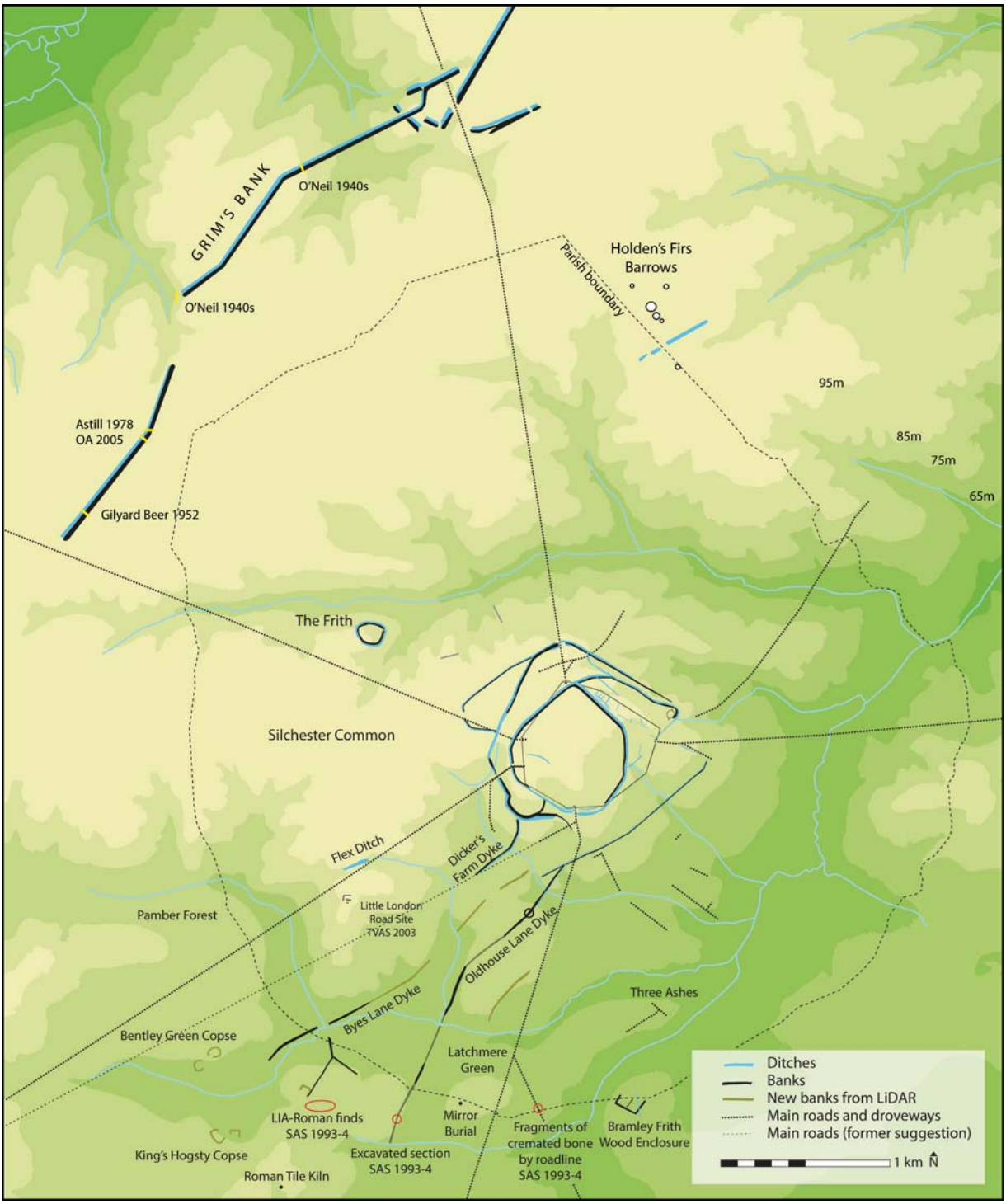

FIG. 10.1. Linear earthworks near Silchester.

much earlier in the Late Iron Age or Roman period. The evidence rests on Shedden's analysis of the pollen record from Layers 16 and 17L representing the old land surface under the bank. The pollen suggested the land was:

> … open, with a high proportion of non-cereal grasses (*Gramineae*) and weeds of pasture lands such as aster and plantain, which suggests the area was used for rough grazing (no cereals were recognised). There were also areas of hazel scrub, while the wind-borne pollen of trees suggests that the more regional environment was one in which sporadic stands of trees grew on valley slopes. (Shedden in Astill 1980, 62)

The pollen from the Basilica and Amphitheatre suggested pine recolonisation of the landscape in the post-Roman period, but this was absent from the soil under Grim's Bank. He also reconstructed the Roman landscape as being predominantly open, with heathland, pasture and arable; but again, the absence of cereals and arable weeds in the sample sealed by the Bank suggests it might be Later Iron Age in date instead when the land was more pasture or wooded (Fulford 1989c, 159; Fulford and Timby 2000, 532–3).

The Oxford Archaeology augering and excavation trench involved significant environmental sampling, though not with very positive results. However, there was evidence that the ground had been cleared by fire before construction of the bank and potential evidence to suggest there had been tree cover (O.A. 2005a, 11). The ditch profile also implied it had filled up relatively rapidly, hence the lack of peaty organic remains which might otherwise have been possible to date.

CONCLUSION

The Grim's Bank earthwork cannot be dated with certainty, but the pollen is suggestive of a Later Iron Age date.

THE OTHER LINEAR EARTHWORKS

HISTORY OF INTERVENTIONS (EARTHWORKS AND RELATED SITES)

1988	Cable cutting through Oldhouse Lane Dyke (Frere *et al.* 1989, 316).
1993–4	Electricity cable revealing LIA sites and cutting southern stretch of Oldhouse Lane Dyke and the Bramley Frith enclosure, SAS Ltd (Brading 2011).
1994	Latchmere Heath Mirror Burial (Fulford and Creighton 1998).
2003	Little London Road LIA-ER site, TVAS (Moore 2011).

DESCRIPTION AND DATING EVIDENCE

The remains are shown in FIG. 10.2. This brings together both the upstanding remains, which are largely scheduled, and results from the 1 m resolution LiDAR. The dykes have a broadly north-east to south-west orientation, and in the two remaining upstanding areas of Dicker's Farm and Oldhouse Lane Dyke, the ditch can be seen to be on the south-eastern side, so these are ostensibly protecting access on to the higher ground to the west of *Calleva*. LiDAR adds a number of potential additional elements to the system.

Byes Lane Dyke

Towards the southern end of Byes Lane Dyke (SAM 1008727; bank *c.* 8 m wide, ditch *c.* 7 m wide) there is a break where the Silchester Brook turns 90 degrees and passes through the earthwork. At this point, an earthwork perpendicular to this, just as substantial, runs off south-east into Bridle's Copse (SAM 1008728; bank *c.* 10 m wide, ditch *c.* 12 m wide). Within the wood it then turns sharply to run in a close to south-easterly direction, though here the bank is a lot less substantial. These were known before, but the Schedule description makes clear that to the south there was an impenetrable conifer plantation. However, that has not defeated the LiDAR which shows the earthwork bifurcating here with a new, similarly less substantial earthwork running off south into Gold Oak Copse, the two lesser extensions branching at almost 90 degrees. To one side of this new extension there appears to be a small enclosure (FIG. 10.2).

These two slightly lesser earthworks, at right-angles to each other, appear to capture within their fork a spur of slightly higher ground. Within this fork, just north of Little London, an electricity cable cut through a large number of Later Iron Age and Early Roman features in 1993–4, all broadly similarly aligned north-east to south-west or at right-angles to that, so potentially related (Brading 2011, 119). This correlation provides circumstantial evidence that these major

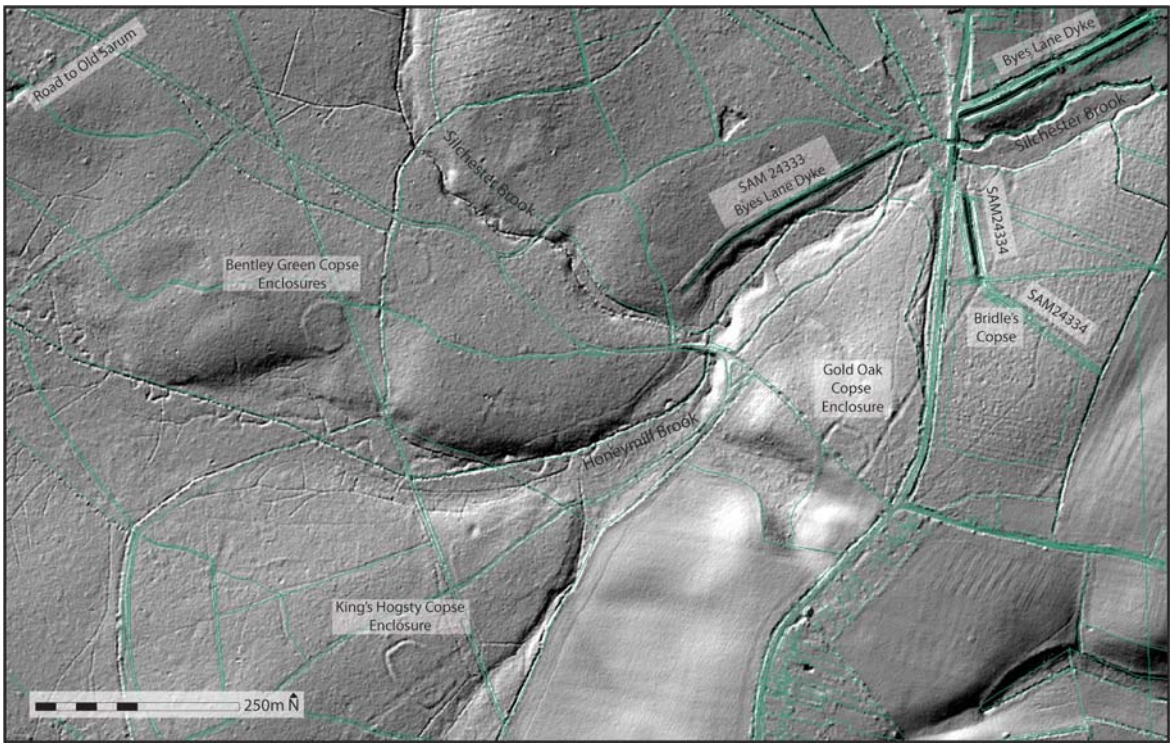

FIG. 10.2. Byes Lane Dyke and new earthworks and enclosures from LiDAR (Environment Agency Data, composite 2012).

boundaries were formed in or by the Later Iron Age rather than being Roman or post-Roman.

Not far away to the west the LiDAR also picked up two pairs of small enclosures under the forest canopy. There is no independent evidence for the date of these. Two are in Bentley Green Copse, and two are in King's Hogsty Copse.

Oldhouse Lane Dyke

There have been two sections across the Oldhouse Lane Dyke (SAM 1011956; bank *c.* 9–17 m wide, ditch to the east).

The Dyke was sectioned *c.* 1988 at its northern end within LP 7468 when a water-pipe was cut through it (SU 6376 6160). At this point the bank was *c.* 9 m wide and surviving 0.4 m high with the post-pipe of a possible palisade revetment noted. There was a ditch *c.* 4 m wide on the eastern side (Frere *et al.* 1989, 316; Fulford 1989b, 7).

Then, in 1993–4, the electricity cable from Little London continuing east along the spur of higher ground cut through the projected line of the Oldhouse Lane Dyke at Froglane Farm. This confirmed its southerly extension beyond the scheduled section. Its survival was slight here and there was no dating material found (Brading 2011, 120, feature 414).

Latchmere Green

Continuing east, on the high-point of the spur, between the Silchester Brook and a stream to the south, there is Latchmere Green. A Late Iron Age Mirror Burial was discovered by a detectorist in 1994, comprising the urned remains of an adult and child, probably dating to the early first century A.D. (Fulford and Creighton 1998). The area was already well known for having a scatter of Later Iron Age and Roman pottery from Corney's fieldwalking (Corney 1984, 283–4), and metal-detecting had recovered a Gaulish Iron Age coin from the area (a bronze *au rameau* ascribed to the Nervii: Scheers 1977, 19 *classe* IV nos 735–48). The electricity cable also sectioned a range of features along the southern edge of the slope of the spur (Brading

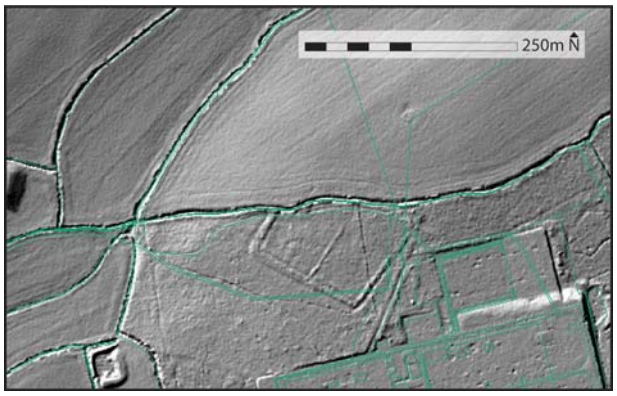

FIG. 10.3. The Bramley Frith Wood enclosure from LiDAR (Environment Agency Data, composite 2012).

2011, 119–29), and disturbed cremated human bone close to where the Roman road forks off to Chichester. The settlement of this spur clearly predates the Roman road and gaining a greater understanding of it would add to understanding the origins of the *oppidum* of *Calleva*.

Bramley Frith Wood enclosure

Just to the east of Latchmere Heath is the Bramley Frith Wood enclosure (Hants HER 24010) (FIG. 10.3). This rectangular enclosure (SU 642 602) was thought to be a Later Iron Age or Roman site (Berkshire Archaeological Services 2001). It shows clearly on the LiDAR survey as being a rectangular enclosure, with the only complete side being *c.* 140 m long. The majority survives within the woodlands, but part of it presumably projects north into a field where it is ploughed out. In 1993–4 the electricity cable watching-brief did not find any evidence of the enclosure ditch just to the north of the copse. What was observed was a V-shaped ditch on alignment with a projection north from another earthwork and ditch within the wood that cut through the enclosure at a different angle. It contained a range of Roman material from Silchester ware through to Oxfordshire red colour-coat and CBM was seen (Hants HER 42781, though assumed within the wood to be medieval or early post-medieval). The rectangular enclosure remains undated (Brading 2011, 120).

Just off the illustration to the south-east of this enclosure, and the earliest evidence of settlement in the area, is the Iron Age fort at Bullsdown Camp, a small multivallate hillfort, just to the east of the present village of Bramley (Hants HER 20768, SAM 1001944).

Three Ashes

At the eastern end of the spur that Latchmere Green sits on is a cropmark site at Three Ashes; the cropmark shows a series of rectilinear enclosures at the junction of two lanes. Fieldwalking produced a small amount of Silchester ware, so the site may have earlier origins, but later third- to fourth-century material predominates. The site has also produced CBM suggesting structures here (Boon 1974, 244; Corney 1984, 280–1, fig. 80).

Flex Ditch

Flex Ditch (SAM 1008725) is a 30 m wide ditch about 5.5 m deep, with a bank on the northern side; it cuts off a spur at the narrowest point, but the spread bank on the northern side hardly makes it defensive. Crawford on his 1931 OS record card likened it to the St Albans 'type' of defence, in terms of its size.

On this cut-off spur a Late Iron Age site has been excavated just off Little London Road by TVAS (Moore 2011). This comprised a rectilinear enclosure on the west side of the road which matched up with cropmarks on the east, and several ditches suggestive of field-systems. There was an entrance to the enclosure on the northern side facing Flex Ditch. The pottery dated predominantly from the mid- to late first century B.C. through to the later first century A.D., with a small scatter of later material in the subsoil. There was smithing waste as well, though the

FIG. 10.4. The new road or earthwork to the north-east from LiDAR (Environment Agency Data, composite 2012).

enclosure was largely devoid of features, suggesting it was more to do with stock management. A watching-brief of a sewer trench going off from here to the west-south-west suggested occupation was confined to the higher plateau. Timby's analysis of the ceramics noted the presence of a particular handmade calcareous fabric which was not present in the earliest levels of the Basilica excavation, suggesting this site might start fractionally earlier. It was interpreted that this site had gone out of occupation as Silchester itself had gradually developed.

Dicker's Farm Dyke

Running south, then south-west from Rampier Copse is the Dicker's Farm Dyke. The standing remains of this feature have never quite met up with the Byes Lane Dyke, though it has often been thought that these two did meet, providing a dual line of defence alongside Oldhouse Lane Dyke (Boon 1974, 40). However, the LiDAR suggests another possibility. There are faint traces of the Byes Lane Dyke continuing on its own course mid-way between the Dicker's Farm and Oldhouse Lane Dykes. These are indicated on the plan, but one segment of the possible remains is certainly a removed field-boundary, so whether it is a modern artefact of enclosed landscape or the field-boundary was tracing an earlier division can only be tested with excavation.

To the north-east

There is a feature that can be seen in the LiDAR potentially forming a new linear earthwork continuing to the north-east, but it could also be a road (FIG. 10.4). The direction it heads in would be perfect for a Silchester to *Verulamium* road, evidence for which has often been suggested (not least the Silchester road coming out of *Verulamium* through King Harry Lane cemetery), but no trace of it has been found so close to Silchester itself (see p. 404).

A bit further to the north-east, off our maps but along the projected line for this road or bank, the trajectory would pass through Mortimer. The site of Mortimer Hill Farm was developed recently for housing, and in 2003 excavations there showed a 22 m wide droveway which

would have been almost parallel to this feature, but about 100 m to the north-west of where the projected line would pass. The site revealed first- and second-century material, including cremations (Taylor 2011).

CONCLUSION

In conclusion, it can be argued that the linear earthworks are all Later Iron Age, from both the pollen evidence associated with Grim's Bank and the possible, though more tenuous, association of Later Iron Age sites with the linears to the south of the city. However, the evidence is by no means unequivocal.

INTERPRETATION

The dating evidence for all the linear earthworks to the north-west and south of the town is even flimsier than that for the Inner and Outer Earthworks, so it is probably better not to attempt to create any kind of sequence associated with them, but we can try to start to interpret them.

CURRENT INTERPRETATIONS OF OTHER DYKE SYSTEMS

Wessex is an area where linear earthworks were not a new phenomenon by the Late Iron Age. Their appearance in the early first millennium B.C. represented a change in land use. Broadly, the picture of the British landscape in later prehistory was largely of open fields with the evidence from sites suggesting intensive mixed farming taking place. Linear earthworks were nothing new; in many areas they had originated in the early first millennium B.C., cutting across Bronze Age co-axial field-systems. On Salisbury Plain many of these ran up from river valleys onto the chalk plateaux creating blocks of land with multiple ecological zones, often containing an open settlement, hence leading them sometimes to be called 'ranch boundaries' (Bradley *et al.* 1994, 130–1; McOmish *et al.* 2002; Sharples 2010, 43–52); sometimes where these major earthworks converged on the tops of hills, hillforts emerged (Bradley 2007, 242–3). The Silchester earthworks differ from these as they go along the hillside rather than running up from the valley, so they represent a different phenomenon.

Another group of earthworks seems to date to the Late Iron Age and might represent territorial boundaries. Recently work has taken place on a number of linears in Oxfordshire. Sauber has sampled Ave Ditch (Oxon.), which he considered dated to the later Middle Iron Age (Sauber 2005, 21–4). The dating is not unproblematic, but there was a mid-Iron Age *terminus post quem* and a mid-Roman *terminus ante quem*. In his discussion he focused on seeing the boundary as territorial, between the Catuvellauni and Dobunni, along with the North Oxfordshire Grim's Ditch, and complementing the Southern Grim's Ditch (Oxon.) which separated the Catuvellauni from the Atrebates, all protecting Catuvellaunian territory, a theme also picked up on by Cunliffe (Sauber 2005, 32; Cunliffe 2005, 192). The dating evidence for both sections of the Grim's Ditch could indeed be Later Iron Age. A section on the southern stretch had a *terminus post quem* derived from fragments of saucepan pot, thought to be third to first century B.C. (Hinchliffe 1975, 133–5); while Copeland considered the northern section to date to the first quarter of the first century A.D. (Copeland 1988, 287). However, rather than seeing the North Oxfordshire Grim's Ditch as a boundary Copeland saw it as a territorial *oppidum* containing within it sites such as North Leigh (later to become a large courtyard villa), which would make for a nascent *oppidum* in a liminal location. Oxford Archaeology, in their report on their trench through Grim's Bank, noted its similarity to the Grim's Ditches and the Ave Ditch (O.A. 2005a, 14).

Further afield, to the south-west, Bokerley Dyke, which had evolved from the Bronze Age, has been considered as a boundary between the Atrebates and Durotriges (Darvill *et al.* 2002, 377; Bowen 1990).

Finally there are the dyke systems which Cunliffe classified as territorial *oppida*, the earthworks which seem to relate in some way to Later Iron Age centres of power at Chichester, *Verulamium*, *Camulodunum* and *Calleva* (Cunliffe 1991, 154). These tended to be far more discontinuous and

more monumental. For Crummy, building upon Hawkes' many years of work on *Camulodunum*, the dykes were all about defence:

> It is generally assumed that the dykes were anti-chariot devices and certainly they would have been very effective against such vehicles … Unlike hillforts which were comparatively small, *Camulodunum* was too large to besiege easily and open enough to allow the attacked to escape if needs be. Its open, unstructured layout was its strength. It was built like an obstacle-course with different lines of defence, each giving those under attack time to retreat and regroup or flee. (Hawkes and Crummy 1995, 162)

Bradley, considering the Chichester entrenchments, noted that they did not particularly protect the Roman town but were focused on a broader landscape to the west, Fishbourne and Selsey. He thought that while theatrical descriptions of chariot warfare were easy to evoke, management of cattle in a large landscape might be a more likely explanation. He drew some specific parallels between the entrances of this and other entrenchments dating to the Later Iron Age (Bradley in Cunliffe 1971, 30–4).

Later still, Niblett and Thompson at *Verulamium* noted how the linear ditches, along the edge of the high ground, created a physical boundary separating the settlement on the plateaux tops from the valley where cemeteries, smithing and the St Michael's ceremonial enclosure could be found. They noted how the ditches were often kept clean, suggesting that the banks were continually renewed, as happened at the Folly Lane enclosure. Visibility and perception of those moving along the valley bottom was important. 'It appears that the *Verlamion* dyke system is less overtly defensive that the Colchester system (which was earlier in origin and covered a larger area) and combined with the pre-existing linear boundaries to control all movements in the landscape whether peaceful or warlike' (Niblett and Thompson 2005, 39).

THE SILCHESTER DYKES

In the Late Iron Age we know there were clusters of settlement or at least enclosures and burials at Latchmere Green, Little London Road on the promontory cut off by Flex Ditch, and just possibly at Three Ashes, as well as *Calleva* itself; in addition there are the undated, seemingly empty enclosures from the Frith and Rampier Copse as well as various undated small ones revealed by LiDAR in Pamber Forest. The broad spread of Iron Age sites, of which only *Calleva*, Latchmere Green and Three Ashes continue into the Roman period, is reminiscent of the polyfocal way that *Verulamium* and *Camulodunum* developed, with multiple Iron Age foci later coalescing around a smaller number of sites; and all framed within a set of linear earthworks which do not entirely make sense to our eyes.

However, Grim's Bank still stands out. Could it be a boundary of the polity of Commios and his descendant to the south-east and the Tasciovanian dynasty to the north and Dobunni to the north-west, with Silchester being created in a liminal location? Strabo famously stated that in the Augustan period the British readily bore moderate taxes on imports to and from Gaul (Strabo 4.5), so the concept of *portoria* between polities within Britain itself which has been used to interpret some of these long linear boundaries is by no means impossible, especially if people were coming from afar to trade with new 'foreigners' at *Calleva*, with their new dietary and material cultural desires.

While the dating evidence remains inconclusive, making a Later Iron Age date likely but not yet certain, it is also worth bearing in mind a rather different possibility. The multiple linears all appear to have their ditches on the south-east side, and FIG. 10.1 suggests it is quite possible that there were four roughly parallel earthworks about 200–250 m apart, which are protecting Silchester Common rather than Silchester Roman Town. A wild card would be that they could relate to the reconquest of the British breakaway empire of Carausius and Allectus, with the arrival in A.D. 296 of the fleet and army of Asclepiodotus, avoiding Allectus' fleet off the Isle of White in the fog and landing in Southampton Water, and from there moving inland, forcing the rebel forces to retreat until the final battle saw Allectus killed, which Joyce and many since have imagined took place in the vicinity of Silchester (Joyce 1881b, 364; Kempthorne 1914–16, 33;

Frere 1967, 381; Boon 1974, 71). The linears are not massive and could have been constructed to defend a force encamped outside the town up on the common from Asclepiodotus' forces arriving from the south. Such a late date is not unthinkable. The Oldhouse Lane Dyke looks as if it crosses several features rectilinear to the South-East Enclosure (see p. 258, Exterior 23), suggesting it is late, though unexcavated intersections of features observed in geophysical evidence can be very problematic to sequence. The intersection of these features would be an ideal location to excavate to obtain a sequence if not dating material as well.

PART IV: INTERPRETATION AND DISCUSSION

Part IV contains a series of essays, all of which draw on the mapped evidence from past work, this survey and the in-depth literature review. In each chapter aspects of the study of Silchester are synthesised. In many cases this is again done within the context of an understanding of historiographical tradition showing how ideas have changed over time and evolved.

CHAPTER 11

CALLEVA'S ORIGINS

In the previous section the evidence for the development of the earthwork systems around Silchester was reviewed. It is now important to populate that enclosed landscape. This chapter reviews the evidence, combining field survey and excavation data with the geophysical evidence. This cannot compete with the detailed information from modern excavation in reconstructing the rhythms of daily life, such as the details of early occupation in the town that will shortly be revealed from the excavations in Insula IX, but this section does look at the broader picture emerging.

PRE-*OPPIDUM*

In the development of *oppida*, the lack of preceding Early and Middle Iron Age occupation on many of these sites has long been noted. Canterbury and Winchester are the obvious exception in Britain, though these appear to represent the re-use of sites after a gap (Blockley *et al.* 1995, 27–51; Qualmann *et al.* 2004, 90). In most cases the sites seem to appear suddenly together with their wealth of imports from the Roman world. However, if these sites were not already politically important centres, then what inspired or drew their first inhabitants to these locations? What was here before?

The first major sign of activity in the area is on the neighbouring promontory to the north, Mortimer Common, where there is a Bronze Age barrow cemetery, now largely within the woodland of Holden's Firs, though there are a number of outliers (FIG. 10.1). At the core, two bowl barrows and three bell barrows had been constructed in a line from the south-east to north-west. Alas no modern excavation has taken place to date them; but on the Silchester promontory itself there is nothing obviously comparable. Had an earlier large circular monument existed, with ditches more than 3–4 m wide, it is likely that the scale of the feature would have shown through the Roman-period geophysical noise above, just as the Inner Earthwork still managed to show.

Silchester's environs in the Early and Middle Iron Age were by no means an intensive agricultural zone; the site was situated on the poor heathland soils of the gravel plateaux, above the poorly drained clays of the Loddon valley. Far richer land lay to the north in the Kennet valley, or on the chalkland to the south. Timby's work on the pottery from many developer-funded projects in the region has revealed a picture of Early and Middle Iron Age sites on the chalk around Basingstoke as well as on the river gravels of the Thames and Loddon to the north and north-east, but almost nothing in the immediate vicinity. By way of contrast, the Later Iron Age marks a radical change

with settlement extending onto the plateau tops. The data show, within about 15 km of Silchester, 28 Middle Iron Age sites increasing to 37 in the Late Iron Age, amongst which there are 18 new foundations (Timby 2012, 138–45). The only early site close to *Calleva* is the Late Bronze Age or Early Iron Age settlement (*c.* eleventh to fifth century B.C.) found to the east-north-east of Church Lane Farm during an evaluation (Fulford 2011). It is within this context that the undated linear earthworks *may* have been constructed and the plateau top and edges settled.

THE MISCELLANEOUS FINDS

While the area may not have been closely settled in later prehistory before the *oppidum*, it was not totally abandoned space either. Boon carefully noted a small but significant cluster of artefacts from the plateau which *might* relate to earlier activity, though not necessarily settlement, on the site. Identification of the material and parallels has been updated here:

TABLE 11.1. POTENTIAL PRE-*OPPIDUM* FINDS

Neolithic polished stone axe and a flaked lance head (St John Hope 1903a, 423; Boon 1957, 218 n. 27).
A Middle Bronze Age flanged axe (Boon 1974, 303).
A Late Bronze Age 'Wilburton' sword (*c.* 1000–900 B.C.); the sword was of a late type, with slots instead of rivet-holes in the tang and shoulders (Pastscape reference – Letter, 19-Feb-1957. G.C. Boon) and was in a local collection by 1845, now at Stratfield Saye House (Anon. 1846a).
A La Tène I bronze brooch (Reading Museum neg. 1790, private hands) from the walled area (Boon 1957, 218 n. 27; 1969, 22). This was Hull's 'type 1(A or B)+' (or a more assertive type 1B in his index), regarded to be fourth century B.C. (Hull and Hawkes 1987, 105 no. 2920bis).
A glass eye-bead: turquoise glass with brown inlay outlined in white and containing blue spots, from the walled area (Boon 1957, 218 n. 27; fig. 16 no. 8; 1969, 22, fig. 8a.1). Boon identified others with the same design and colour from the 'Princely burial' or *Fürstengrab* at Reinheim (Saarland) *c.* 400 B.C. (Keller 1965, Taf. 26a, 26b 1–2). These conform to Guido's Group 4, which she dated to the fourth or third century B.C., she considered them to be 'not common' (Guido 1978, 61–2, 127, pl. I.9).
A La Tène II Brooch: Hull's type 3C (Hull and Hawkes 1987, 181, no. 4361).
A possible Montefortino helmet cheek-piece: Boon identified a fragment of sheet iron with bronze rosettes through it as the cheek-piece from a Montefortino-style helmet. The cheek-pieces, which are commonly found missing when the helmets are discovered, often had a trefoil design on them if decorated (Boon 1974, 36–7; cf. Paddock 1993, 573, fig. 174; Schaaff 1974). The identification is not implausible, especially now an increasing number of pre-conquest 'Roman/Celtic' helmets have been found in Britain, such as the contemporary and less decorated Coolus helmet from Bersted (Taylor *et al.* 2014, 121) and a recent find from outside Canterbury.

Added to this collection should be the radiocarbon date given to one of the skulls from the North Gate excavation of 550–200 B.C. (1sd OXA 8732). Collectively this material led Boon and later Fulford to wonder if there might not have been a fourth-century B.C. barrow on the plateau, and whether this association had been one of the criteria for selection of this site for the *oppidum* (Boon 1974, 36, 303–4; Fulford 2000a, 356–7). It may only be a coincidence, but the new town of Waldgirmes was established in the Lahn valley around 4 B.C. also on the site of a range of earlier La Tène burials (Becker and Rasbach 2015), perhaps in an attempt to legitimise new settlement by forming an association with the past.

THE PLATEAU EDGE ENCLOSURES

On the edge of the gravel terrace, at some point of unknown date, a series of enclosures was constructed (see p. 322, FIG. 9.8): the Rampier Copse enclosure, the Frith and the promontory cut off by the Flex Ditch. The geophysics, which sampled two of them, suggest there is nothing substantial inside, though geophysics can be deceptive. There is no direct dating evidence for the Frith or Flex Ditch; but we have some evidence for the Rampier Copse enclosure. That it is pre-*oppidum* seems most plausible as otherwise it makes no particular sense after the Inner Earthwork

was constructed. If cremation burials were inserted into the inside of the bank then they would provide a *terminus ante quem* for the structure. Its south-eastern side, mapped by Colt Hoare (FIG. 3.4), has long since been ploughed out; but this area correlates well with one of Corney's earliest distributions of pottery (PC:7, FIG. 6.62). Banks and ditches are not normally filled with pottery, so it could be that these were the result of the destruction of features cut into the bank which would give it a Late Iron Age *terminus ante quem*. While they remain imprecisely dated, the phenomenon of paired enclosures in the Early to Middle Iron Age is not uncommon in Wessex, with pairs at Gussage All Saints I and II, Winnall Down I and II, and Little and Great Woodbury (Davis 2008).

Looking slightly further afield at other enclosures in the vicinity, dating by analogy does not help us much. Williams-Freeman drew attention to the 4 ha multivallate Bullsdown Camp, just east of Bramley, only 5 km to the south-east of *Calleva* (SU 67082 58382). This was another enclosure on a plateau, in this case above the junction of the Bow Brook and the River Loddon. Unfortunately it too has no dating evidence associated with it and has not seen any excavation (Williams-Freeman 1915, 314–15; 1934, 109).

All of these have in common terrace-edge locations. The later Romano-British temple complex in Insula XXX developed in a comparable location. It was here by the temples and the East Gate that a pre-Caesarean gold coin (VA1205:S4 British B) was found (Bartlett 1854). This is significant because these coins disappeared very rapidly from hoards and circulation during or immediately after the Gallic Wars, so it is suggestive of activity before the generally accepted start of the *oppidum* (Creighton 2000, 67–8). Bartlett also reported a miniature axe *ex-voto* from the East Gate, two more of which came from the Antiquaries' excavations in Insula XXX (St John Hope 1903a, 422; Boon 1974, 156, 332). Yet more, though alas unprovenanced, had been recorded in Stair's collection from the site (Bartlett 1854, 57), but these need not necessarily be pre-Roman as they seem to begin in the Later Iron Age and continue on into the Roman period (Kiernan 2009). One coin can be over-interpreted easily, but it would be interesting if activity on the enclosure site pre-dated the development of the Romano-Celtic temple complex and/or burial complex in the area. This is the pattern of activity that had been noted at Folly Lane, where through the Later Iron Age period there had been a marked-out space on the visual crest of the hillside where the burial enclosure was later to be established, which had been used for potentially ritual purposes (Niblett 1999, 8–16).

Of the other pre-Caesarean coins (though ones which could have remained in circulation and arrived here later), three come from the Basilica excavation but in later contexts, and one from House XXXIV.1 near the Public Baths and spring (FIG. 5.32). The Basilica group included one of the earliest Gallic silver coins from Gallia Belgica (Sch. 52) with a head derived from Athena which was probably the type that inspired the development of British silver under Addedomaros (Williams 1998).

TABLE 11.2. POTENTIALLY PRE-CAESAREAN COINS
(extracted from Boon's hand-list in Fulford and Timby 2000)

G1	House XXXIV.1	(Boon 46) Northern Champagne, Potin Sch. 195 (90–60 B.C.: Haselgrove 1999, 118)
G5	Basilica site	(Boon 47) Northern Champagne, Potin Sch. 195 (90–60 B.C.: Haselgrove 1999, 118)
G7	Basilica site	(Boon 56) Rouen-Amiens, AR Sch. 52 (125–60 B.C.: Haselgrove 1999, 142)
G9	Basilica site	(Boon 59) Curiosolitae Billon Stater II (probably just pre-Caesarean, but carried on in circulation later)

In conclusion, through the Early and Middle Iron Age there may have been pre-*oppidum* activity taking place on the plateau with some forms of earlier material culture found which were unlikely to have been in circulation after Caesar's visits to the island. There are suggestions of plateau edge enclosures. Concrete evidence is lacking for the Frith, though we do know that the Rampier

Copse enclosure must have been extant prior to the Late Iron Age burials being inserted into its bank. Behind the plateau edge at this time lay a largely uncleared forest.

THE EARLIEST SIGN OF A SETTLEMENT

On our current understanding, the settlement was established by 25–15 B.C., or perhaps a little earlier. It was constructed in relatively undisturbed woodland, and resulted in a transformation of the landscape into open pasture and hay meadows (see p. 269). The site is unusual for an *oppidum* in Britain being distant from good river communications, but the location did have the potential to dominate both the north–south route between the Thames Valley and Southern Central England, and also the dry east–west routes for moving livestock from the Avon and Severn areas across to the lower Thames Valley.

Ceramically the earliest assemblages from this new site were distinguished by containing handmade grog-tempered coarseware and early amphorae, but lacked the later imported fineware which readily appeared on selected sites in south-east Britain in the later first century B.C. (Table 11.3). The Dressel 1b present also went out of production around 13 B.C. which means these assemblages probably date to before then (Timby 2012, 130); however, the early deposits also contained Dressel 2-4, so they cannot be too early. A start date around 25 B.C. is suggested.

Under the Basilica, the excavated features take the form of three wells and several curved, but not quite circular, gullies which have been interpreted as eaves-drip gullies for roundhouses. The three wells in such close proximity suggest dense occupation from the start.

The early deposits in Insula IX will be reported on in due course, but interim reports suggest the earliest activity in the area was a bisection of the site by a V-shaped ditch running north-west to south-east which was filled with pottery provisionally dated from *c.* 20 B.C. through to the beginning of the first century A.D. (Fulford *et al.* 2013, 2); this suggests broad contemporaneity with the pre-Basilica deposits. One hypothesised timber building may relate to this or to a slightly later phase ('Hall 1': Fulford *et al.* 2014, 4); all may become clear with the final report.

The other locations where early material has been found include various pre-Claudian spreads of pottery from Corney's fieldwalking, specifically PC:3, 7 and 11 (FIGS 6.50 and 6.62).

TABLE 11.3. CERAMICS ASSEMBLAGES AT LATE IRON AGE SILCHESTER

Earlier (*c.* 25–15 B.C.)	**Later** (*c.* 15 B.C.–A.D. 40–50)
grog-tempered coarsewares	sand-tempered wares
Dressel1b amphora (ended by *c.* 10 B.C.)	grog-and-flint-tempered wares (incl. Silchester ware)
Dressel 2-4 starting to appear	white rouletted butt beaker (Cam 113)
	Central Gaulish - micaceous Terra Nigra - white-slipped flagons - coarse rock-tempered and finer mica-slipped lid-seated jars (Cam 102, 263)
	Gallo-Belgic wares: Terra Nigra, Terra Rubra, Italian and provincial Arretine, South Gaulish samian, Campanian Pompeian Redware
	Amphorae: Dressel 20, 1B, 1sp., 2-4, Dressel 1/Pascual 1, Haltern 70
Exemplified by	**Exemplified by**
Basilica Period 1: lower fill of Well F762	Basilica Periods 2–3
(later fills and gullies included Dr 2-4)	Corney's PC:1–2, 4–6, 8–10 and 12–13
Corney's PC:3, 7 and 11	
Boon's Trench J, deposit under Inner Earthwork	

Scatter PC:7 came from the site of the ploughed-out eastern boundary of the Rampier Copse enclosure and possibly derived from pots and cremations inserted into the earthwork as discussed below (see p. 374). In the Iron Age it was common to find partial human remains in boundary locations, so the insertion of the new-rite cremations into the boundary adapts an existing local pattern of behaviour.

Scatter PC:11 derived from just outside what was going to become a western entrance to the Inner Earthwork, but that had not been constructed by this stage. It started as a tightly focused cluster of pottery which continued to spread as later pottery was deposited together with a spread of tile. So, it represented some form of sustained activity, whether a long-term habitation or industrial activity is unclear.

Scatter PC:3 was a patch all on its own with no later pottery in the same location.

Collectively this shows a number of areas of activity. That relatively dense material at this early date can be found both under the Basilica and Insula IX, and also further south and west as soon as the remains are not masked by the later Roman town, suggests the early settlement was reasonably extensive, though at this stage not obviously enclosed.

Further afield, on the spur cut off by Flex Ditch, the Little London Road site came into existence (shown on FIG. 10.1). This rectilinear enclosure also seems to start early in the mid to late first century B.C. with its handmade calcareous ware, making it contemporary with the earliest clear sign of settlement on the *oppidum* site (Moore 2011).

THE RAPID GROWTH OF THE *OPPIDUM*

The early settlement seems to have evolved very rapidly, as shown by the marked decline in the proportion of arboreal pollen seen in the wells under the Basilica, which indicates a rapid transition towards a more open landscape in which grass pollen and pasture plant predominated. The chronology for the filling of these wells (F718/71 and F762) was short, perhaps from 20 B.C. to the start of the first century A.D. (Wooders and Keith-Lucas in Fulford and Timby 2000, 523; also 546). Clearance seems to have allowed the colonisation by hazel and alder, although these too gave way in their turn to grassland and hay meadow, as these became established in the first century A.D. (Veal 2012, 228).

The layout at this point changed radically. On the Basilica site Periods 2–3 saw the demarcation of two roads (Lanes 1 and 3 on FIG. 11.1), and the block of land to the west of these was divided up into at least three plots containing evidence for at least one rectangular wooden building; the dividing fences cut through several of the curved gullies indicating the removal of some of the earlier buildings. In Period 3 these three plots were consolidated to create a unified area behind a large wooden palisade, made from substantial upright timbers set at *c.* 2 m intervals. Once constructed, pits were dug behind the fence-line and infilled throughout Periods 3–4 (FIG. 5.31). With the reorganisation of the settlement the ceramics also showed significant change in their breadth and quality. Imported finewares appeared from around A.D. 15 onwards: Terra Nigra, Terra Rubra and Arretine; joined by sand-tempered ware and grog-and-flint-tempered wares, alongside Dressel 20 olive oil and Dressel 2-4 wine amphorae.

Under Insula IX the V-shaped ditch was overlain by what appears to be the same street projecting north-west from the Basilica site (FIG. 5.18). This was on a slightly different angle to the earlier boundary. On the plot to the north-east of this line Hall 1, in the interim reports, gave way to a sequence of two further timber buildings (all but the first overlay the V-shaped ditch so must be later). The final one, provisionally called Hall 3 in a late interim report, was 12 x 23 m (Fulford *et al.* 2014, 5). In its plan it looks like a classic tripartite early villa building or cottage house, with a narrow room down the middle and two rooms on either side, though made of timber rather than stone. It is slightly larger than many, but comparable to some such as Cléry-sur-Somme (Smith 1997, 51). Considering Smith's discussions of the social use of space in such buildings, it is interesting to note such a layout present here at pre-conquest Silchester. All will be reported on in due course in the final report, but what is established beyond doubt is the intensity and complexity of occupation in this period.

This is also the date when the Inner Earthwork was constructed. As recounted it has a *terminus*

post quem of the late first century B.C. or early first century A.D. (pp. 309–11), dated using material sealed under the sandy bank; the assemblage was dominated by grog-tempered pottery, with only a few fragments of butt-beaker, but otherwise missing the finewares and later amphorae that became so prominent in Period 2–3 deposits under the Basilica, so the sealed deposit is unlikely to be much later.

The Basilica, Insula IX and the tiny area uncovered by Boon in Trench J are the only locations where we have open-area excavation detail for aspects of layout within the town. That we know anything of the internal arrangement is entirely due to the two major research excavations by Fulford.

SEARCHING FOR THE IRON AGE LAYOUT

The purpose of this work is to see if the combination of fieldwalking, geophysics and the digitisation of past excavations, together with the literature review, can combine to build on the picture above; to extrapolate from the well-known areas within the excavations to beyond, to develop our understanding of the layout of the town.

The quest, attempting to recreate the early layout of the town, began with a classic paper by Aileen Fox (1948). In this she identified a series of buildings which were misaligned to the street-grid, arguing this was indicative of an earlier layout. These included: the Public Baths (9 degrees), the two temples in Insula XXX (10 degrees), the temple in Insula XXXV (10 degrees), House XXXIII.4 (10 degrees), House XXXIII.5 (9 degrees), House XVII.3 (11 degrees), House XVIII.3 (9 degrees), House XVI.2 (16 degrees), Block XV.III (18 degrees), House XXIII.2 (18 degrees). From this she did not argue for a differently aligned Iron Age grid, the angles were too irregular for that, but merely that an 'early irregular street plan was general in *Calleva*' (Fox 1948, 177). Certainly, the more recent excavations within Insula IX have shown how stone buildings well into the Roman period continued on earlier alignments rather than aligning to the orthogonal street-grid.

When it came to Boon imagining how the layout within the newly-discovered Inner Earthwork might have looked, he noted that nearly all the misaligned buildings were within its circumference, and pointed out how many had seen structural alterations or extensions to adjust a portion of the buildings to align with their relevant street frontages (Boon 1974, 47). He went further than Fox in envisaging an earlier intended overall alignment (rather than Fox's 'irregular street plan') based on a direct line between where he thought the eastern and western entrances of the Inner Earthwork were (just south of his Trench K in the east and on alignment with the West Gate to the west, FIG. 9.3). He noted that this alignment was similar to that of the early Public Baths, so perhaps, he thought, this represented an early attempt to create a regular orthogonal layout. He asserted that 30 buildings conformed to the same deflection, despite Fox's demonstration that many were at a whole variety of angles. However, he noted that: 'such a town-plan, or course, can never have reached the stage of having metalled streets between the plots: otherwise, there would have been no reason to change the alignment later' (Boon 1974, 47). Nonetheless, Boon had thereby created the notion that there had been an earlier Cogidubnian or pre-Roman grid.

Fulford's Basilica excavation provided the first direct evidence for the layout. Periods 2–3 revealed two lanes which almost intersected at what he repeatedly described as right-angles (Fulford and Timby 2000, 9, 26, 29). This was curious, as the illustrated plans of the street ditches and especially the angle between the palisade post-hole alignments looked significantly more than 90 degrees; they actually form an angle of 104 degrees (Fulford and Timby 2000, figs 6 and 7). The two joining roads then became referred to as the Iron Age 'street-grid' in the concluding synthesis and references to it thereafter (Fulford and Timby 2000, 546–7; and many later examples: e.g. Fulford and Clarke 2009b, 4; Fulford and Clarke 2011b, 19). This description has been maintained with one notable exception in Fulford's paper on Julio-Claudian Silchester, where he noted the wide variety of angles Fox had pointed out, and conceded that 'this of course throws into question the idea of a regular late Iron Age grid based on the findings of the Basilica excavation …', going on to consider the possibility of a more fragmented organic growth (Fulford 2003, 100).

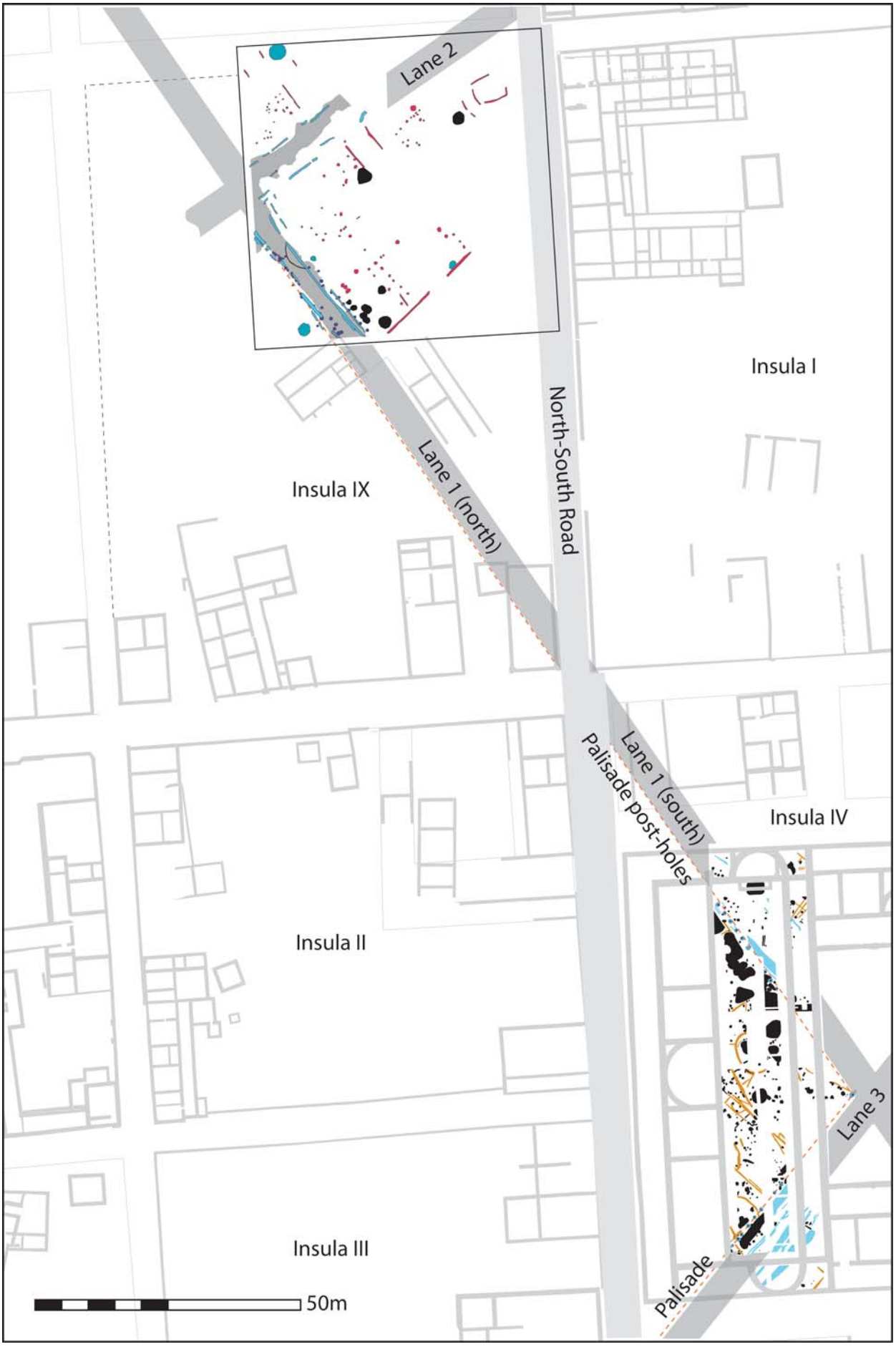

FIG. 11.1. Fulford's two open-area excavations revealing the Iron Age lanes.

At this point my research strayed into Silchester. In Creighton 2006 (135–41) I was sceptical about the notion of an Iron Age grid, noting the sum of our evidence for it comprised only two roads at 104 degrees to each other, and not even necessarily crossing. Instead I wondered if other elements of the later Roman street-grid did not have earlier origins, such as the road from the Forum to the Insula XXX temple enclosure which was not in alignment with the later Roman grid, as had often been observed before (e.g. Boon 1974, 91). I also picked up on some of the misaligned buildings where a number of them had a consistency of angle. It was a slightly messier reconstruction than the notion of an Iron Age grid (Creighton 2006, fig. 7.4).

Around 2008 a new Iron Age lane within Insula IX started to be revealed (Lane 1, FIG. 1.11; Fulford and Clarke 2009b, 4). If the Basilica roads had been at 90 degrees to each other then projected north-west Basilica Lane 1 would never have clipped the Insula IX excavation, but with the detailed mapping here, clearly they are one and the same (FIG. 11.1). Indeed the palisade trench in the Basilica excavation, represented by nine post-holes at 2 m intervals, aligned perfectly with the Insula IX street's fence-line to the west side of the street and the subsequent 'more robust structure with substantial posts' (Fulford *et al.* 2013, 3). There were also comparable Later Iron Age/Claudian pits dug behind this palisade within Insula IX as there had been on the Basilica site. After a while a second lane perpendicular to this was also discovered (Lane 2, FIG. 1.11).

Within the centre we can provisionally reconstruct the sequence of road development as being something like the following (FIG. 11.2):

The first lanes were in Basilica Period 2, when Lanes 1 and 3 were marked out. Lane 3 was metalled early on with flint cobbles, 10–100 mm in size, in a brown loamy matrix, sealing some deposits which gave it a *terminus post quem* of 15 B.C. (Fulford and Timby 2000, 28); however, the evidence for the metalling of Lane 1 is equivocal. Within the part exposed in the Basilica excavation it appeared not to have been metalled, though the deposits could have been truncated; but there was evidence for metalling where the lane passed within Insula IX, perhaps suggesting it had stayed in use longer, which as we shall see was probably the case. Within the area of Insula IX a perpendicular Lane 2 was added, provisionally dated to A.D. 20–44 (Fulford *et al.* 2012, 5).

Then, presumably around the time of the conquest, though provisionally dated to A.D. 25–50, the main north–south road was carved through the *oppidum* (Fulford *et al.* 2011, 6). This appears to have led to the abandonment of the roads under what was to become the proto-Forum area. A turf line developed over Lane 3 which incorporated Claudio-Neronian material (Fulford and Timby 2000, 29), and eventually the lanes here were covered by the Period 4 building which has a Tiberio-Claudian *terminus post quem*.

While the lanes on the east side of the north–south road may have gone into disuse, those within Insula IX to the west continued for some time. There is evidence to suggest Lane 2 perhaps adjusted its course to meet the new road. Meanwhile Lane 1 was gradually built over, and provided part of the foundation for the floor of an early Roman period roundhouse (ERTB3, FIG. 5.18, see p. 79).

Later, new east–west roads were added fleshing out the new 'Roman' street-grid. The metalling is provisionally reported to seal deposits of burnt daub and Claudio-Neronian pottery (Fulford *et al.* 2011, 6). The subsequent development of the 'Roman' street-grid is discussed later (pp. 390–4).

So far, this is the evidence from the two excavations. To what extent can we project the lines of these lanes beyond? One of the main problems with looking for any traces in the geophysical data is that the features are beneath over a metre of later Roman material. Also the roads run at an angle to the Roman grid very similar to that of the Antiquaries' trenches, so any trace of a linear feature at such an angle is likely to be interpreted as a trench of the Antiquaries rather than as a deeper Iron Age lane. Ideally a deeper technique could be used such as GPR, but even then the features might be difficult to distinguish as one of the roads had no metalling and was only visible in the excavation because of the absence of features there.

Nonetheless, various observations can be drawn together to suggest possible projections (or limits to projections) of some of these lanes, and also add new ones.

Lane 1 is the best known street, observed in both the Basilica and Insula IX excavations. To the south-east of the Basilica we do not know if it continues, but a crossroads has been presumed,

FIG. 11.2. The development of the Iron Age lanes.

though the road has not been projected too far on the hypothetical reconstruction (FIG. 11.3). Projecting its line to the north-west we have more information at our disposal. There is no additional direct evidence for it within the Inner Earthwork area; this was a zone where the quality of the fluxgate gradiometry was diminished by the metal from the excavation camp site, so the lack of evidence is not surprising. There are good reasons for believing the lane did not continue beyond the Inner Earthwork: first, within LP 6667 there was no significant overburden of Roman strata, so had there been side-ditches to the road they might have been seen, but none were; secondly, the projected line crosses both the Rye Cottage and Cotton's excavations (see Exterior 9, FIGS 6.26–28) but no trace was seen in either trench, so I concluded it did not continue this far.

Lane 2 there is no additional evidence to support or negate its projection in either direction.

Lane 3, known from the Basilica excavation, heads south-west towards the Rampier Copse

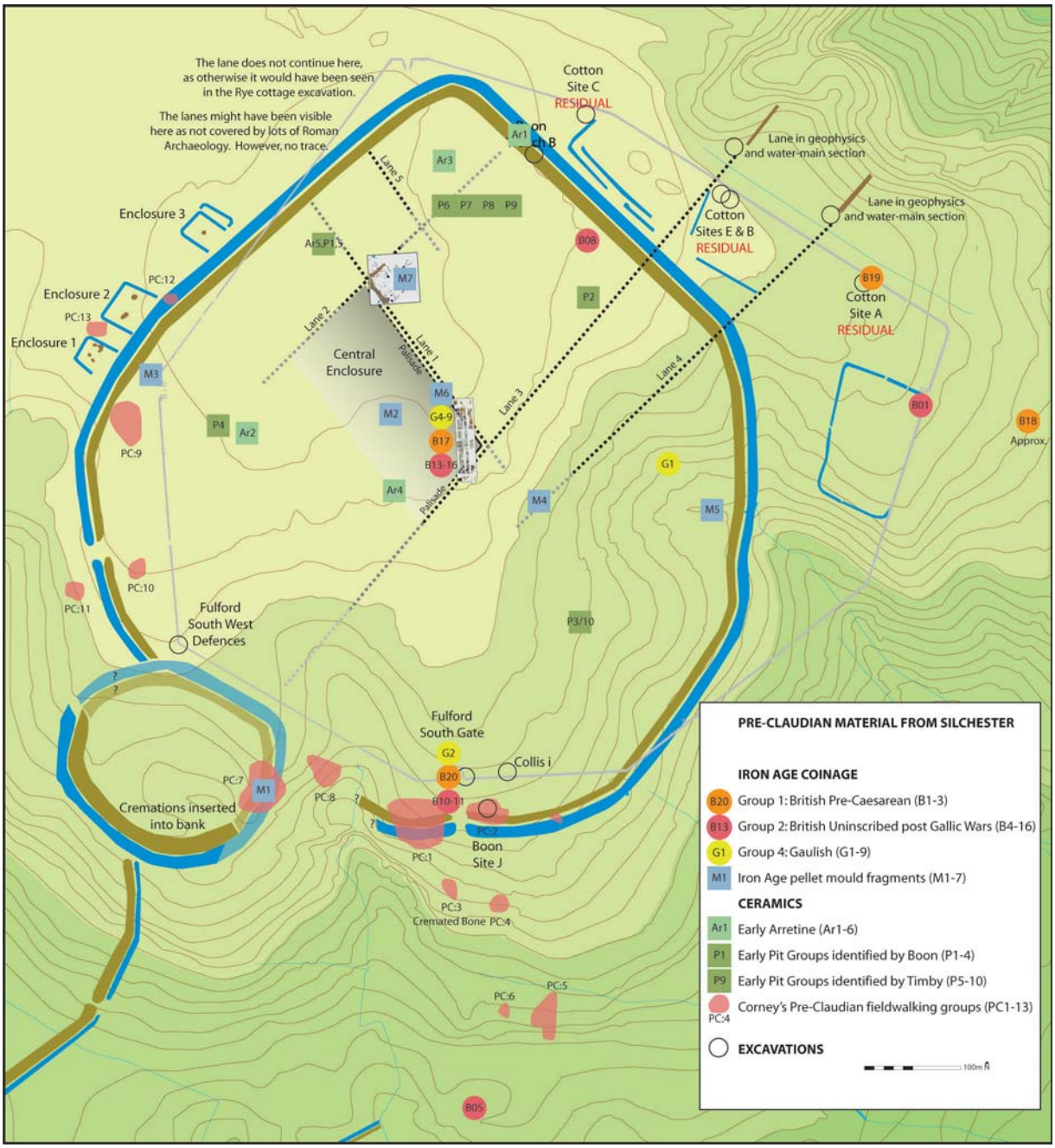

FIG. 11.3. Evidence for the layout and extent of the Iron Age *oppidum*.

enclosure, though there is no supporting evidence from the geophysics to confirm this. On the other hand, towards the north-east we do have additional evidence, though at quite some distance away. Two pieces of evidence suggest the lane might be one of the major arterial routes in the Iron Age layout. First, the geophysical survey within LP 2671 was indicative of a lane. This was interpreted as such independently of any other evidence. Two parallel ditch-like anomalies suggested its existence (Exterior 10, FIGS 6.29–31, Feature 5). This is corroborated from the section in the water main trench. Here the sections were only rapidly observed, but a metalled area was seen in plan, suggestive of a road. In the drawn section it appears as a *c.* 8 m wide surface with a slight gully on either side (556–565 m along the section, Fulford *et al.* 1997, 159–60). No dating evidence was collected, but it was at the base of the sequence. There was a slight difficulty in matching this section to the geophysics as all the features in this area appeared to match up with the section, *only* if the section had actually been *c.* 10 m further east, in which case various features aligned. The slight mismatch is shown in the illustration. The combination of the stratigraphically early street and geophysics makes the existence of a short stretch of lane in this location secure; it is a long distance to interpolate between the Basilica stretch of Lane 3 and this stretch to the north-west, but they *could* be one and the same.

Lane 4 definitely exists outside the Inner Earthwork to the north-east; it is clear in the geophysics (Exterior 14, FIGS 6.42–44, Feature 12). Within the water main section, again slightly displaced to the west, there was no sign of metalling, but there were the two side ditches caught in section and filled with Iron Age to second-century material, suggesting the lane here continued in operation for some time. Projected back into the *oppidum* to the south-west, this lines up with a linear feature seen crossing Insulae V and VI, and clearly not relating to the Antiquaries' trenches (see Interior 10, FIG 5.34). The spacing of it as very roughly parallel to Lanes 2 and 3 makes it not implausible, though it would be curious to have two entrances crossing the Inner Defences to the north-east so close together; however the defences could post-date the layout of the lanes.

Lane 5 is placed on the illustration as there is a weak linear feature within Insula XXVI (see Interior 1, FIGS 5.3–5) which is roughly parallel to Lane 1. Again the spacing is similar to that between hypothetical Lanes 3 and 4. That it shows through the Roman overburden is possible as the Antiquaries found little in the way of Roman features in this area. It appears to continue under where the Inner Earthwork bank is presumed to be, which again might suggest the earthwork post-dated the lanes, but this is tenuous evidence. There is no sign of it continuing outside the Inner Earthwork, though much of the area it projected into was not surveyed.

In addition to these hypothesised lanes, there are also a number of other linear features revealed in the geophysics which do not obviously relate to the later Roman buildings or grid; many of these are on the slopes in the southern half of the town. There is no dating evidence for these and some of them could just as easily be post-Roman and Later Iron Age features.

The reconstruction of these elements is offered to help frame future investigations. The limitations to the evidence should be recalled by anyone reproducing it. In essence, it suggests an Iron Age *oppidum* on a broad south-east-facing co-axial alignment, if not a perfect grid.

IRON AGE OCCUPATION LAYERS THROUGHOUT THE TOWN

In order to flesh out the layout of the *oppidum* we can add to the evidence for potential lanes, the evidence from excavated and residual finds. The quality of the Basilica and Insula IX evidence will be hard to beat, but various other assemblages and finds have been recorded over the years which suggest extensive occupation; this marries with the pollen evidence that suggested the consequent woodland clearance in the area.

Table 11.2 provides a schedule of the early material from the site. Much of this has been plotted in FIG. 11.3 to show the distribution across the site. The quality of the data varies significantly.

First, and most reliable, are the excavations which show solid evidence of Later Iron Age groups of material, and these include the works of Cotton, Boon, Collis and Fulford.

Secondly there are the ceramic groups of early material that can be identified from the Antiquaries' excavations, most recently re-examined by Timby, Bird and Dickinson as part of their reassessment of the Reading Museum Collections; however, Boon also identified several

early groups which have also been included. Alas much of the Antiquaries' material was not labelled when it came out of the ground.

Thirdly there are some other finds which are of the right period and have locational information, but are not always from stratified groups, so need to be treated with a little bit more caution; they include the Arretine pottery, the pellet moulds and the early uninscribed British and Gallic coins (I have excluded the later inscribed coins as Iron Age coins continued happily circulating into the Flavian period, though they are listed).

Finally there are the fieldwalking scatters of pre-Claudian material as mapped by Corney (1984).

TABLE 11.4. SCHEDULE OF PRE-CLAUDIAN MATERIAL FROM SILCHESTER WITH SECURE LOCATIONS

Iron Age coins based on Boon's hand-list (in Fulford and Timby 2000, 163–8)		
Group 1: pre-Caesarean		
B1	East Gate	(Boon 6) VA1205: S4 British B
B2–3	unknown	(Boon 4 & 5) VA1205: S4 British B and VA200: E4 British A
Group 2: uninscribed Gallic Wars or later (with provenances)		
B4	near Pond Farm	(Boon 1) VA50-56: SE5 Gallo Belgic E
B5	150 m south of town SU 639 616	(Boon 2) VA50-56: SE5 Gallo-Belgic E
B6	500 m south-east of church	(Boon 3) VA50-56: SE5 Gallo-Belgic E
B7	south-west of Frith	(Boon 11) VA210: S5 British QA
B8	Insula XXIIB or XXVII	(Boon 12) VA210: S5 British QA
B9	near/at Three Ashes cropmark site	(Boon 13) VA216: S5 British QB (Corney 1984, 280)
B10	South Gate, pre-Claudian pit	(Boon 57) VA154-09: SE6 (Fulford 1984, 109)
B11	South Gate	(Boon 7) VA809-21: NE7 British KB
B12	SU 6373 6154	(Boon 16) ? copper-alloy unit
B13	Basilica site	(Boon 8) VA809-21: NE7 British KB
B14	Basilica site	(Boon 9) VA809-21: NE7 British KB
B15	Basilica site	(Boon 14) VA288: S6 Southern silver unit
B16	Basilica site	(Boon 15) ? plated Southern silver unit
Group 3 (distribution not shown): all the other Iron Age coins are later, they come from:		
B17	Basilica site	(Boon 17, 19–21, 256, 35, 38–40)
B18	east of the walled area	(Boon 18)
B19	Insula XXXVII, Pit A1	(Boon 19) Cotton 1947, 147, no. 1
B20	South Gate or ditch beyond	(Boon 43) found in 1873
Group 4: Gaulish (* indicates pre-Caesarean minting)		
G1	House XXXIV.1*	(Boon 46) Northern Champagne, potin Sch. 195 (90–60 B.C.: Haselgrove 1999, 118)
G2	South Gate or ditch outside 1873	(Boon 51) Amiens, *AE* Sch. 80s *classe* IV (?60–20 B.C.)
G3	SU 608644, 1.6 km SSE of Church	(Boon 53) Pas de Calais, *AE* Sch. 83 (60–20 B.C.: Haselgrove 1999, 161)
G4	Basilica site	(Boon 44) Volcae Arecomici (Provence), *AE* DLT-2677 (70–30 B.C.)
G5	Basilica site*	(Boon 47) Northern Champagne, potin Sch. 195 (90–60 B.C.: Haselgrove 1999, 118)

G6	Basilica site	(Boon 51) Somme, *AE* Sch. 80e *classe* V (60–20 B.C.: Haselgrove 1999, 161)
G7	Basilica site*	(Boon 56) Rouen-Amiens, *AR* Sch. 52 (125–60 B.C.: Haselgrove 1999, 142)
G8	Basilica site	(Boon 58) ?
G9	Basilica site*	(Boon 59) Curiosolitae billon stater II (probably just pre-Caesarean, but carried on in circulation late)

Iron Age pellet or coin-mould fragments

M1	LP 0685	2 fragments from fieldwalking [=PC:7] (Corney 1984, 285–6)
M2	Insula II	(Boon 1954b, 69)
M3	pit outside West Gate	(St John Hope and Stephenson 1910, 324–6; Boon 1954b, 69)
M4	near the Insula IV 'church'	found 1961 (Corney 1984, 287, fig. 84; Boon 1969, 25)
M5	near the Public Baths	found 1961 (Boon 1969, 25; Corney 1984, 287, fig. 84)
M6	Basilica site	21 fragments (Fulford and Timby 2000, 413–15)
M7	Insula IX	multiple fragments, report forthcoming (Fulford *et al.* 2011, 4)

Located early Arretine (decorated and undecorated) from Boon 1969, 25–9

Ar1	Boon Trench B topsoil (1955)	3 decorated Arretine fragments (Boon 1969, 9)
Ar2	House XIII.1	2 decorated Arretine fragments, probably Augustan
Ar3	NW Insula XXIII (1955)	1 decorated Arretine fragment, probably Tiberian
Ar4	Pit XIII.D	1 decorated Arretine fragment
Ar5	Insula III	stamped Arretine ATEI
Ar6	Pit XII.B	stamped Arretine A'TE'I Loeschcke 11 base [=P1=P5]

Early pottery groups identified by Boon

P1	Pit XII.B	11 complete pots in a pit near the south-east angle of the insula. There is inconsistency in the record as to whether it was called Pit A or B, but the description of the group and location is consistent (Fox 1895, 458; May 1916b, 186–9; Boon 1969, 31–4) [=A6 =P5].
P2	Pit XXI.9	5 vessels, though alas the pits were given letters that season not numbers, so it is not clear which this is (St John Hope and Fox 1900, 97, fig. 3; Boon 1969, 34).
P3	Pit XXXV.9	10 vessels at the base of a well (St John Hope 1908, 210–11; May 1916b, 184–6, pl. 76; Boon 1969, 34) [=P10 below].
P4	Pit XIII.10	various ceramics including Tiberio-Claudian butt-beakers and a vessel in Terra Nigra, though again the pits were lettered that season, not numbered, so it not clear which pit these were from (Boon 1969, 34).

Early pottery groups identified by Timby *et al.*

Re-analysis of the Reading Museum collections identified six pre-Claudian groups (Timby 2012, 128–9, there is a typo of XXXIII for XXIII on p. 128, fig. 8.1 is correct).

P5	Pit XII.A [=P1 above]
P6	Pit XXIII.24
P7	Pit XXIII.31
P8	Pit XXIII.32
P9	Pit XXIII.35
P10	Pit XXXV.IX [=P3 above]

TABLE 11.4 (cont.). PRE-CLAUDIAN MATERIAL FROM SILCHESTER WITH SECURE LOCATIONS

Corney's pre-Claudian fieldwalking groups (his Period 1A and 1B: Corney 1984, 248–53)		
PC:1	LP 0001, 1300 m², 3.05 kg	1B: Augustan to mid-first century A.D.
PC:2	LP 0001, 800 m², 1.02 kg	1B: Augustan to mid-first century A.D.
PC:3	LP 0001, 200 m², 0.65 kg	1A: mid- to late first century B.C.
PC:4	LP 0001, 250 m², 0.45 kg	1B: Augustan to mid-first century A.D.
PC:5	LP 0068, 850 m², 0.35 kg	1B: Augustan to mid-first century A.D., 'cremation'
PC:6	LP 0068, 150 m², 0.20 kg	1B: Augustan to mid-first century A.D.
PC:7	LP 6805, 1900 m², 2.45 kg	1A: mid- to late first century B.C. [=M1]
PC:8	LP 6805, 700 m², 1.10 kg	1B: Augustan to mid-first century A.D.
PC:9	LP 5333, 1400 m², 1.80 kg	1B: Augustan to mid-first century A.D.
PC:10	LP 5333, 300 m², 0.30 kg	1B: Augustan to mid-first century A.D.
PC:11	LP 5333, 300 m², 0.25 kg	1A: mid-to late first century B.C.
PC:12	LP 3950, 150 m², 0.30 kg	1B: Augustan to mid-first century A.D.
PC:13	LP 3950, 250 m², 0.20 kg	1B: Augustan to mid-first century A.D.
Excavation evidence		
Cotton Site A	early material present, but only residual (Cotton 1947, 124–5)	
Cotton Site B	early material present, but only residual (Cotton 1947, 124–5)	
Cotton Site C	early material present, but only residual (Cotton 1947, 124–5)	
Cotton Site E	early material present, but only residual (Cotton 1947, 124–5)	
Boon Trench B	small hollow under Inner Earthwork bank producing: a rouletted body sherd from a cream-ware butt-beaker, a shoulder of a necked jar in sandy grey ware, two fragments of imitation Gallo-Belgic platters in smoothed brown ware; and six flint-gritted sherds (Boon 1969, 9).	
Boon Trench J	pre-Roman occupation (3–4 pit, a gulley and a hearth) under a low sandy spread interpreted as the Inner Earthwork bank, though curiously no Terra Nigra or Terra Rubra (Boon 1969, 13–14, pl. XI). Dated by Boon to post A.D. 25, Fulford re-dated to post *c.* 15/10 B.C. (Fulford 1984, 233; 1987a, 275); however, Timby then thought that the presence of a fabric G4 vessel suggested a date after A.D. 5/10, though reported some of that fabric might have been found in earlier contexts at *Verulamium* (Fulford and Timby 2000, 308).	
Collis Trench 1	Pit (Collis 1983, 59)	
Fulford South-West Defences	possible pre-conquest sherds residual in Claudio-Neronian charcoal-rich gravelly spread (Fulford 1984, 27)	
Fulford South Gate	an area fronting the wall, east of the entrance revealed an occupation layer (7) above the gravel with Tiberio-Claudian samian and a saucepan-pot bowl (Fulford 1984, 27). To the east of the gate in the rampart section, Pit 1 was possibly pre-conquest containing Tiberio-Claudian samian, Gallo-Belgic wares and a British LY [VA154-05: SE6] coin (Fulford 1984, 31, 123).	
Fulford Basilica	extensive through Periods 1–3, starting with curved eaves-drip gullies and transforming into a planned layout with rectilinear structures and two roads (see pp. 104–8) (Fulford and Timby 2000).	
Fulford and Clarke Insula IX	extensive evidence (see pp. 76–9)	

Collectively these finds, plotted in FIG. 11.3, show the majority of contextualised material coming from within the Inner Earthwork, but some residual material, and possibly material associated with cremations, coming from outside. It is noticeable how extensive this distribution is, amplifying Fulford's perception that Late Iron Age deposits had been revealed 'in so many areas wherever significant excavation has taken place that the early settlement must be considered to be extensive and reasonably dense from the beginning of the first century A.D.' (Fulford and Timby 2000, 547).

The nature of the occupation seems to have led to the creation of a black earth in some areas. These deposits may not all be the same thing or chronologically identical, but it is a common theme from the excavation reports. Cotton found black earth predating the Town Bank along with residual Iron Age material in all of her sections into the earthwork (Cotton 1947, 123, Period III). Boon then noticed the sandy bank of the Inner Earthwork overlay a thin black occupation layer, in this case predating the earthwork in Trenches J and L (Boon 1969, 13). At the other end of the Later Iron Age, around the South-West Defences, residual pre-conquest sherds were found in a Claudio-Neronian charcoal-rich gravelly spread (Fulford 1984, 27). The same was the case from a section into the rampart, just to the west of the South Gate, producing a 'dense black charcoal-rich occupation layer (3/19) above the natural subsoil' containing Claudio-Neronian samian (Fulford 1984, 29–30); something similar was also in the section on the eastern side as well. Finally, under the Basilica the rectilinear enclosures had a layer of 0.05–0.10 m thick black earth (Phase 3.9: Fulford and Timby 2000, 34). Some dark horizons have been seen in Insula IX but await to be reported on. While these soils may represent abandonment in some areas for some periods, their varied dating does not suggest a town-wide desertion, but rather a series of events. That around the area of the Basilica may relate to the clearance there for the major reorganisation of the town grid in the centre around the period of the conquest.

In conclusion, the structural and distributional evidence suggests the settlement was founded around 25 B.C. as an unenclosed site on a location where there had been traces of earlier activity but no obvious settlement. Upon enclosure around the end of the first century B.C. or early first century A.D. (before Gallo-Belgic imports were common) a new series of planned lanes was laid out. Some of these lanes can be suggested with high levels of confidence; others are more speculative with varying qualities of evidence to support them. Yet, throughout the interior a broad spread of early material culture has been revealed from the Antiquaries' excavations (residual material and some early pit groups), the distribution of early coins, and the rich detailed modern excavations under the Basilica and within Insula IX.

THE MATERIAL EVIDENCE

The material evidence for the Later Iron Age was summed up neatly in the concluding synthesis of the Basilica excavation report (Fulford and Timby 2000, 545–64), and Fulford will presumably be revisiting this in his forthcoming volume on the early deposits of Insula IX. Suffice it to say, the Basilica excavation showed the new population ate in totally new ways; they consumed a high proportion of cattle and pig, supplemented by birds and fowl despite Caesar stating the Britons held this as a taboo (Caesar, *BG* 5.12). This was a very different diet to that found in Middle Iron Age settlements or indeed contemporary indigenous Late Iron Age ones. Even in terms of cereals, the presence of *Agrostemma githago* (common corncockle) as a weed, hitherto only known in Mediterranean crops, suggested importation of seed corn (Fulford and Timby 2000, 551). The new delicacy of oysters too was visible from the first deposits under the Basilica in Period 1. Alongside the imports of ceramics and amphorae, it is difficult not to envisage the arrival of a significant population from abroad.

The import of cereal along with weed seeds is curious, suggesting a perception that imported grain and imported agro-technologies were better. This is certainly the case when it comes to the development of new methods of manufacture such as leather-making where the mechanism of knowledge-transfer poses many questions, as discussed later (pp. 413–14). An alternative interpretation is that the foundation of this new intrusive settlement was extremely politically sensitive, and the settlers could not rely upon obtaining seed-corn locally. Whatever the initial

circumstance, Britain was said by Strabo (*Geog.* 4.5.2) to be exporting grain back to the Roman world later in the Augustan era.

Goods were accumulated through connections across Britain, and do not appear to have been restricted to the area associated with the Commian dynasty in central southern England (see p. 433). After the construction of the Inner Earthwork, briquetage appears, with its fabric best matched from Canterbury and north Kentish sites; while Lodsworth stone querns looked to Sussex and the South-East.

As Fulford concluded, thinking about the scale of the new settlement: 'it is not a question of a small elite group, but the latter, perhaps, and their clients, dependents, slaves, and so on' (Fulford and Timby 2000, 563). These probably numbered in the hundreds if not low thousands, their lives providing a distinct contrast to those around them. Even in their death they were buried in new ways: some in what appear to be individual burial enclosures, while others followed the still relatively uncommon cremation rites with their remains inserted into the Rampier Copse enclosure bank (see pp. 373–83).

THE *OPPIDUM* IN CONTEXT

In continental scholarship *oppida* have traditionally been envisaged as enormous enclosed settlements, generally on hilltops, and larger than the average British hillfort (cf. Collis 1984, 6). Indeed, Silchester does not even figure in many continental surveys of *oppida* (e.g. Fichtl 2005; Oppida 2008). Cunliffe, in extending the term from the Continent to Britain, elaborated the typology, adding the category of 'territorial *oppida*' to cope with the landscapes of linear earthworks protecting an area without ever forming an explicit enclosure, as at Chichester, *Verulamium* and *Camulodunum* (Cunliffe 1991, 368). Yet the first stage of development of the *oppidum* at Silchester appears to have been unenclosed for perhaps a generation from 25 B.C. to around the turn of the millennium, and this deserves some discussion.

An evolutionary approach used to be considered for the appearance of urbanism in northern Europe, with unenclosed agglomerations, often described as villages, seen developing into or being replaced by enclosed *oppida* in the Late Iron Age, and subsequently by Roman towns. However, Collis pointed out how many *oppida* just suddenly appeared as fully-formed creations in new locations, which might then go on to become Roman towns, or might again move to be re-founded on another site (Collis 1984). As chronologies have been refined, so have many of these narratives become even more complex and highly variable (Barral 2011; Fernández-Götz *et al.* 2014). Sometimes there does appear to be a linear sequence of sites, with an urban shuffle taking place as one replaces another. The classic example of this is the valley-bottom Villeneuve-Saint-Germain (*c.* 80/70–40 B.C.) moving to the hilltop site of Pommiers in the Augustan era and then back down to the valley with the foundation of the new Roman town of *Noviodunum* (Soissons); but all these three are uncontentious *oppida* or Roman towns. The new site-type to add into the mix is the unenclosed agglomeration. It is now being appreciated that some of these lasted much longer and were not just predecessors to the development of *oppida* (like Aulnut before Gergovie), but continued in existence alongside and chronologically overlapping with nearby fortified sites, for example at Basel (Kaenel 2006, 32) and possibly at Levroux (Collis *et al.* 2000, 79). I worked at the Sources de l'Yonne in Burgundy where La Tène D2 and Augustan material was spread over 115 ha of an unenclosed hilltop. The scale, except for the missing defences, would normally have seen it designated an *oppidum*, but it was on the hilltop adjacent to the major *oppidum* of Bibracte — both flourishing at the same time (Creighton *et al.* 2007; Moore *et al.* 2013, 495–500). Unenclosed agglomerations and examples of contemporary settlements very close to each other are increasingly not uncommon; the details of a variety of cases of overlap are detailed in Moore *et al.* (2013, 509).

Unenclosed agglomerations were by no means exceptional in Augustan-era Gaul. So the foundation of *Calleva* as an unenclosed settlement, adjacent to the earlier small Rampier Copse enclosure (but stripped of the Outer Earthworks which are now thought to be later in date), may not have been out of character with what was happening elsewhere, though within a generation the Inner Earthwork was deemed necessary and constructed to defend the site.

When the new circuit was finally built, earlier structures appear to have given way to a more organised layout with crossing lanes and building plots (Basilica site, Period 2). The lanes did not cross at right-angles, but there are hints of lanes which are almost but not quite parallel. This degree of planning (some way off a Roman orthogonal grid) can also be found at a number of sites in northern Gaul, e.g. Variscourt/Condé-sur-Suippe, *c.* 128–80 B.C., and Villeneuve-Saint-Germain, *c.* 80/70–40 B.C. (Brun *et al.* 2000; Pichon 2003, 518–23). In both these cases, as at *Calleva*, the general orientation was not to the cardinal points, but more south-east/north-west. Yet, in none of the three situations was there an obvious geographical deterministic reason to select the axis chosen, as one could have suggested at *Verulamium*, constrained by the valley it was within; other factors were decisive.

Geographically, the location of the site itself should be wondered at. The choice does not provide an easy explanation. Dyke Hills at Dorchester-on-Thames is at a major river junction of the Thame and Thames; Oram's Arbour in Winchester controls a valley cutting through the chalk downs; Chichester combines safe harbours with agricultural plains off the South Downs chalklands; but Silchester is peculiar. Cunliffe expressed this eloquently:

> *Calleva* … occupies a region of mixed and comparatively unproductive soils, and it is well away from the densely settled areas of the chalk downlands and the Thames valley. What motivated its founders to choose that particular location? Were they deliberately selecting a 'no man's land' to avoid confrontation, or were other factors at work that are not immediately apparent? (Cunliffe 2012, 15)

His analysis brought out the obvious notion that the establishment was between the Southern Kingdom founded by the Commian dynasty and the Thames valley Eastern Kingdom dominated by the Tasciovanian dynasty. The location was a liminal one and apparently a contested zone between these two. Early on it seemed to lie within the Southern Kingdom's domains to judge by coin distributions, though later it came to be within the Eastern Kingdom's influence under Tasciovanus' son Epaticcus. In an economic sense, liminal positions could be neutral places tapping into multiple social and distribution networks, so in this case traders tapping into both the developing polities of the Eastern and Southern Kingdoms, which will have been very decentralised at this date. Indeed such a peripheral location is reminiscent of Millett's suggestion, based on Polanyi, about early Roman London being peripheral to the political geography of the Later Iron Age Lower Thames, tapping into the networks of the communities focused on the *oppida* of *Verulamium*, *Camulodunum* and *Durovernum* (Millett 1990, 89).

However, this liminal positioning may have had another dimension to it as well. The open settlement at the Sources de l'Yonne was situated on the watershed between the rivers that flowed north to the English Channel (via the Yonne and the Seine) and those that flowed west to the Atlantic (the Arroux) (Moore *et al.* 2013, 506). Throughout prehistory these kinds of location were recognised and venerated from knowledge that seems to have been accrued through generations of movement across the landscape. 'Just as streams successively feed into larger bodies of water as they flow to the sea so an awareness of local landscapes feeds into larger "pools" of knowledge that culminate in a regional perspective of drainage basins and how they interconnect' (Goldberg 2009, 194; see also Spratt 1990). *Calleva* lay on the eastern edge of the gravel spur that comes off the higher ground which is the watershed between the drainage area of the Thames leading into the North Sea (*Oceanus Germanicus*) and the rivers running south to the English Channel (*Oceanus Britannicus*); the dry span of land between represented a major east–west route in southern England across from the southern Thames basin and North Downs in the east to the Severn Estuary in the west. This east–west axis and flow through this locale could help explain why it was the triple-tailed imagery from the early coinage in Central Southern England (the Southern Kingdom) that flowed west and ended up being adopted by and dominating the later iconography of the coinage of the West (often ascribed to the Dobunni). The link west was maintained when *Calleva* came under the control of Epaticcus of the Eastern Kingdom, as exemplified by Dio who stated that the 'Bodunni' were subservient to the Catuvellauni (Cassius Dio 60.20).

It could be that this geographical crossroads position is why the plateau had already attracted

activity, but no obvious signs of settlement, in the Early to Mid-Iron Age, if there were indeed earlier burial tumuli here. It is notable how Waldgirmes in the Lahn valley could have been built anywhere, but it was situated right by, and indeed partly on, some earlier La Tène burial mounds (Becker and Rasbach 2015).

CONCLUSION

This chapter has reviewed the pre-*oppidum* context of the site and its early development from an unenclosed agglomeration through to an enclosed *oppidum* with an organised layout. It has discussed the changing perceptions of the Iron Age layout and added to the hard concrete evidence for lanes from Fulford's excavations the data from pipe trenches and geophysics to suggest a further elaboration of the network. It has mapped other finds of this date to underline the extensive nature of the settlement, arguing for fairly intensive occupation within the Inner Earthwork rather than selected nuclei. The *oppidum* has been put in its broader north-west European context, where the early Augustan unenclosed settlement is by no means uncommon when compared to some continental urban agglomerations. Finally the location has been remarked upon in terms of its broader political and geographical geography. This is the archaeological story; the historical narratives woven around the creation of Silchester will be explored in the final chapter (p. 431).

CHAPTER 12

MILITARY INVOLVEMENT

This chapter reviews the changing approaches to finding evidence for and reconstructing the relationship between the Roman military and the native inhabitants around the Claudian conquest. The different quests to find evidence for a fortress or fort under the town are outlined, though no firm evidence exists. The chapter concludes by examining how the evidence we have would have been interpreted had *Calleva* been in northern Gaul or Germania, concluding that the evidence at Silchester unproblematically fits in with patterns discovered there.

CHANGING PERCEPTIONS

Since Stukeley drew Silchester in the shape of an imagined Roman fortress (FIG. 3.1), the military aspect of the town's foundation and existence has been pondered. While some antiquaries may have imagined a fortress, others, such as Horsley, saw it plainly as 'a very considerable place, perhaps a capital' and 'a large Roman city' (Horsley 1732, 458). The duality of town or camp was resolved by the time of Joyce's excavations — all the houses and mosaics made that clear — and the town's polygonal shape was interpreted as evidence of a British origin to the town. Nonetheless Joyce saw the hand of the Roman legions in its overall layout and design; and while he did not write on this in his formal reports, he pondered upon it in lectures to local societies which were then reported:

> Silchester was supposed to have been originally a British settlement or camp, from its form, but it was occupied, undoubtedly, at an early date by the Romans. The internal portion of the town was subdivided into rectangular forms … From the fact of there not having been found tiles in Silchester inscribed with the name of any legion, it had been doubted whether it was ever occupied as a military station, but [Joyce] believed it *had* been so occupied, and gave his reasons for thus thinking. He did not doubt, however, but that commerce was carried on there, because at that time it was one of the most important centres of enterprise in the country. (Joyce 1865)

The Antiquaries, however, took a different view. Mill Stephenson, who had been the superintendent on site during the entire campaign, concluded in his mind that the lack of any firm evidence meant that Silchester was evidently not a military station (Anon. 1918, 18). Despite the Antiquaries' conclusion, and probably because they never wrote a synthesis of their work, it was left to others to create a vision of the town's foundation and development, and within early twentieth-century academia Haverfield was the leading light. In his *Romanization of Roman Britain*, he saw colonies as playing a leading inspirational role, but he also outlined two further models:

> Often, native provincial markets or other centres of life grew so far Romanized that they were held to merit the rights and status of a Roman municipality, and the wisdom of the Roman government in recognizing such progress was well repaid by the development of fresh centres of Roman civilization. Often, the legionary fortresses attracted traders, women, veterans and others to settle outside their gates but under the shelter of their ramparts, and their canabae, or 'bazaars', to use an Anglo-Indian term, grew not seldom into cities, worthy of municipal position. (Haverfield 1915, 15–16)

It was the second model, the development of the town around forts, which took hold and became a mainstay of twentieth-century archaeological thought. Wherever excavation took place, evidence for forts would be sought under Roman towns.

The core notion was that urbanism and civilised living were inspired by the example of the Roman legions. This might be through the emulation of the model towns or colonies settled by retired legionaries (Richmond 1946, 57); or perhaps through military guidance being provided in the construction of bathhouses based on military types in the Rhineland or shops looking like military barracks (*Verulamium*: Frere 1972, 10–11); or fora looking like military *principia* (Wroxeter: Atkinson 1942, 345; Silchester: Boon 1974, 109–10). Frere's *Britannia* synthesised this narrative brilliantly, as did Wacher's grand survey of *Roman Towns in Britain* (Frere 1967; Wacher 1974).

In the mid to late 1980s the notion of explicit military involvement was questioned by Blagg (1984) and Millett (1990, 65–103). This shift in interpretation came to be a common trend. Features within towns such as *Verulamium*, which Frere once imagined as evidence of early underlying forts, were reinterpreted (Frere 1983, 5; Niblett and Thompson 2005, 146–9). Fulford was less than convinced by Millett's rejection of military and state assistance in the design and creation of towns; in his review of *The Romanization of Britain* Fulford restated many of the earlier perceived examples of evidence (Fulford 1991). But over the decade Fulford also shifted his ground. While at first he had interpreted the early timber building under the Basilica at Silchester as a military *principia* building (Fulford 1993, 21), once more of the plan was revealed and by the time it came to the final publication he had shifted his position to interpret it as a proto-Forum (Fulford 1986b, 3; Fulford and Timby 2000). This position he appeared to maintain for a while, going so far as to say: 'there is an *a priori* case based on the link between the orientation of early town houses, such as in Insula IX, and what is known of the late Iron Age layout, to rule out the possibility of a fort of a size to accommodate a legion or part of a legion overlying the native settlement' (Fulford 2003, 101). Nonetheless, in recent years he has shifted back to referring to it as a 'possible headquarters building beneath the basilica', and reproducing his plan of its reconstruction as a *principia*-shaped courtyard building in the centre of the town, with a *via praetoria* leading south from it (Fulford *et al.* 2013, 6; see also Fulford *et al.* 2011, 6–7; Fulford and Clarke 2011b). Given this uncertainty in interpretation, it is probably worth spending a little time examining the evidence for Claudian military occupation or otherwise.

SEARCHING FOR THE FORTRESS

The interplay between military design and town planning had been picked up as a theme throughout Boon's writing. He saw the layout of the town as reflecting that of a Roman camp: 'the Forum was intended to stand, like the headquarters of a legionary fortress, at the end of a *"via praetoria"*' (Boon 1969, 44; see also Boon 1974, 55). Boon's evidence for military connections went further: there was no doubt about a military presence in his mind based on the identification of the military finds from Reading Museum (Boon 1969, 44–5 and fig. 5). Subsequently this corpus of artefacts has grown with more finds from the Basilica site (Boon 2000) and more recently from the Insula IX excavations (Fulford *et al.* 2013, 5).

For Webster, the doyen of the forts-into-towns paradigm, Boon's corpus of finds was conclusive: 'there is now sufficient military equipment from Silchester to postulate a fort here' (Webster 1970, 183; see also Webster 1958, 89); but where exactly? Prior to the Basilica excavation, Webster noted the finds from Boon's Inner Earthwork backfill and concluded the Plautian conquest-period fort, which he believed must exist, was in the north-eastern part of the town. He imagined that the presence of this no-longer-visible fort might provide an explanation for the distortion in the road system in the north-east, where the main east–west road deviates off its path to head for the East Gate. Perhaps the fort was there, adjacent to, but outside the Iron Age *oppidum*? While Webster never drew a plan, FIG. 12.1 shows a fort positioned in this location. This could be viewed as similar to the fortress at Colchester being constructed adjacent to the Late Iron Age Sheepen area.

This is where hypotheses remained for a while until Fulford began his explorations at Silchester. While he was excavating the Basilica (1977, 1980–86), he was also engaged in publishing his earlier work on the defences which Sommer then reviewed for *Germania* (Sommer 1986). Here Sommer gave the hypothetical fort clear form and structure. Inspired by Boon's description of the military-style street-grid (Boon 1974, 55), he imagined a legionary fortress taking up a

block of *c.* 370 x 460 m (around 17 ha) within the centre of the town in a fashion not dissimilar to the fortress at Wroxeter being a precursor for the development there. He hypothesised a *principia* building under the Forum, with the *via praetoria* coming in from the west. He also ventured to suggest that the early timber Amphitheatre might be associated with the fortress (FIG. 12.1; Sommer 1986, 642–3). Sommer's interpretation was influenced by the concurrent Basilica excavations. Fulford had already discovered the timber buildings under the Basilica and had been pondering their function. In an early interim (at which point provisional dating suggested they were closer to the Neronian period than the Claudian), he was already wondering if they might not be a forerunner to the Forum-Basilica, a residence for Cogidubnus, or, indeed, a *principia* building from a Boudican-period garrison (Fulford 1985a, 56–7).

We will examine the structural evidence for the timber building shortly, but Fulford's interpretation of it began to crystallise in Fulford 1993; here he built on Sommer's suggestion, firmly favouring the interpretation of the building as a *principia*. Sommer's imagined fortress had the *principia* facing west, with the *via praetoria* running out that way. However, this could not stand as Fulford's western-range building did not have a break in the middle which a *principia* required, nor did it have a shrine in the middle for the military standards; so Fulford's conception of a possible fort was rotated round 90 degrees with his *via praetoria* running south (FIG. 12.1; Fulford 1993, 23, fig. 5). Unfortunately neither the *via praetoria* nor *via decumana* in this arrangement headed for the existing gaps in the Inner or Outer Earthworks to the north and south, though his *via praetoria* did head for a curious dogleg in the road south to Winchester. He hypothesised the east–west road leading out of the Lesser West Gate to Old Sarum was the *via principalis*, though in this case it would mean the *principia* was unusually set back from the road.

Even within the same volume where the idea was proposed, Philip Crummy questioned it on metrological grounds. In an analysis of the spatial layouts of towns and fortresses, Crummy noted that the non-colonial sites (Caerwent, *Verulamium*, Caistor St Edmund and Silchester) had streets which were generally more widely spaced than in fortresses, which militated against a classic fort layout underlying the Silchester grid. Though he also noted that, if anything, his analysis would have suggested that *if there were* a fortress underlying Silchester, then the 300-foot strips would suggest the *principia* building would have faced east or west, and not south as Fulford proposed for his Period 4 structure (Crummy 1993, 115–16).

The geophysical survey, reported here, clearly shows no playing-card-shaped fortress defences exist. Given the Iron Age Inner Earthwork shows within the town, despite four hundred years of occupation material above it, it is inconceivable that large military ditches would not appear. No hint of the hypothesised *via praetoria* or *via decumana* exists either, though it would be more possible for these not to have been revealed in the geophysics. So while the classic fortress model *must* be abandoned, could the hypothesised *principia* building lie within a less regimented layout? In later plans Fulford has dropped the *via praetoria* and *via decumana* showing his *principia* building simply situated within the Inner Defences (Fulford *et al.* 2013, 6; see also Fulford *et al.* 2011, 6–7; Fulford and Clarke 2011b).

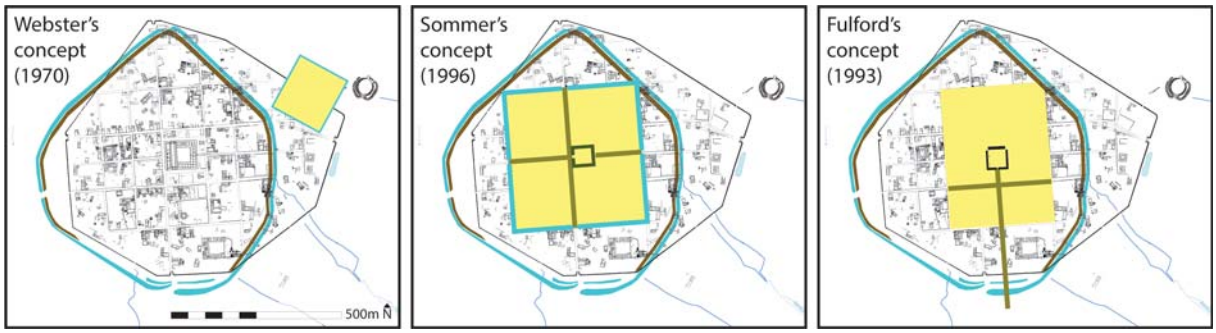

FIG. 12.1. The hypothetical forts and fortresses of Webster (1970, 183), Sommer (1986, 642–3) and Fulford (1993, 23, fig. 5).

Fort layout was still evolving in the Julio-Claudian era, with many sites such as Haltern and *Vindonissa* constructed in less-than-rectangular enclosures. At Silchester the Inner Earthwork already existed, and though it would have required the wiping away of already dense occupation, as revealed under the Basilica and Insula IX, could space have been made for a fort within this area? These defences enclose an area about twice the size of a normal legionary fortress, so certainly there was space. But wherever we see a fortress or fort in a non-rectangular enclosure (e.g. Augustan Haltern, or Claudian *Vindonissa* and Hofheim), or nestled within a pre-existing enclosure (e.g. Hod Hill), the *principia* building is still more-or-less aligned with the prevailing axis of the enclosure. Here at Silchester the Period 4 building is at 45 degrees to the defences and Iron Age roads, which would make it exceptional.

Driving all this speculation has been the Basilica site Period 4 building; but is it a *principia* building at all? What are the various interpretations that have been provided for it?

A POSSIBLE *PRINCIPIA* BUILDING

The Period 4 buildings discovered under the Basilica were exceptional. They were large compared to many Roman structures and formed part of a major re-orientation of the entire town from its previous axes at about 45 degrees to the cardinal points, to that of the Roman orthogonal grid. While initially dated to the Neronian period, later analysis suggested a recut had been missed and the buildings actually had a Tiberio-Claudian *terminus post quem*.

The excavation revealed a north–south range, and also to the north the start of a separate east–west range. Early interim reports also referred to a southern east–west range (e.g. Fulford 1993, 20). The supposed presence of a southern building had enabled Fulford to consider these three created an enclosed courtyard complex; this in itself opened up the possibility of seeing this phase as a proto-Forum or *principia*. But did this southern range exist at all? The key evidence was the interpretation of a foundation trench, F1455 (see FIG. 5.31). Was it part of a southern range heading off to the east, or was it just the southern wall of the western range? The final structural report concluded the latter; dismissing any evidence for a southern range, it only referred to two buildings (Fulford and Timby 2000, 37–44), but despite this the range continued to appear in reconstructions and discussion in the synthesis of the report, even though the primary evidence on which it was based had now been reinterpreted (Fulford and Timby 2000, 565–6).

Fulford has floated four possible interpretations of these buildings:

(1) **A palace of Cogidubnus**: the building was the first sign of a re-orientation of the town along a cardinal axis, in which case it could be seen as a major political statement, part of re-planning the town 'with the official encouragement of a client king to press ahead with a building programme in Roman style, our building may be regarded as [Cogidubnus'] *Callevan* residence' (Fulford 1985a, 56).

(2) **A military store building**: another kind of courtyard building was military stores 'which consist of ranges of small rooms, sometimes fronted by a verandah facing into the courtyard. In their proportions the longer sides are between one third as much again to twice the length of the shorter (von Petrikovits 1975, 84–7, fig. 20). On the face of it the comparison between a large store building and our Silchester structure is good, but the location of such buildings is always peripheral within the fort' (Fulford 1993, 21).

(3) **A *principia* building**: 'Given the central position of our building in relation to both the natural topography and the layout of the native *oppidum*, the interpretation as a *principia* seems more likely' (Fulford 1993, 21). The *principia* building was also favoured by Fulford on the basis of date: 'with a later Claudian date, it is more likely that [the building] would relate to the development of a civil town either as part of a Cogidubnian kingdom or as *caput civitates Atrebatum*. A military interpretation at that date would seem implausible. An earlier Claudian date reverses the situation' (Fulford 1993, 21).

(4) **A proto-Forum**: the interpretation simply as a direct precursor to the later Forum-Basilica, with the porticoed series of units being shops with some used for metal-working (which militated against a *principia*), won in the final report; however, as referenced above Fulford has continually gone back to wonder about the *principia* alternative.

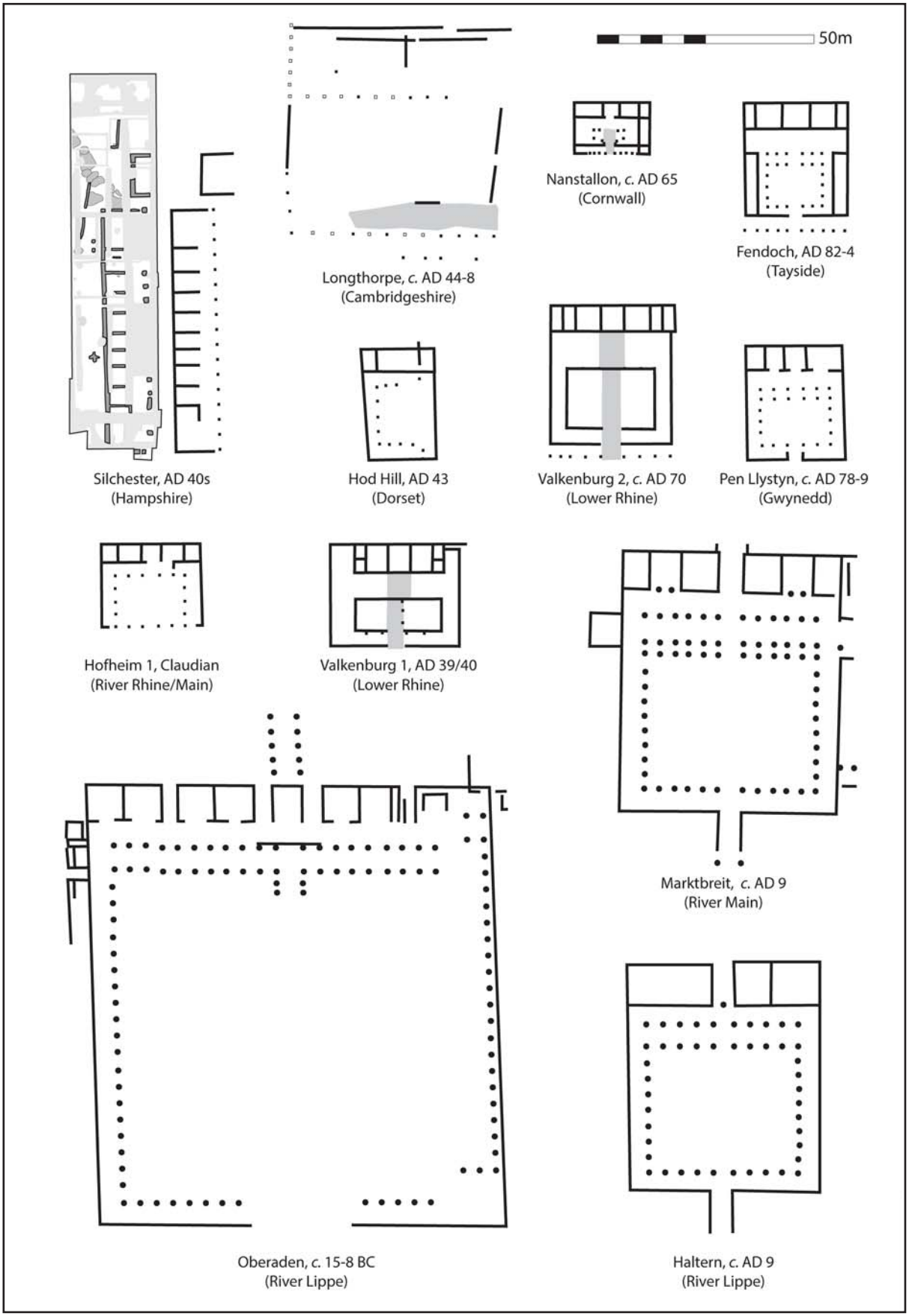

FIG. 12.2. The Period 4 building and comparative examples of various *principia* (after Fulford and Timby 2000, fig. 27; Frere and St Joseph 1974, 18; Fox and Ravenhill 1972, 74; von Schnurbein 2000, 32).

The interpretation as an early Forum-Basilica has been the most widely adopted (Millett 1990, 78; Niblett 2001; Wilson 2006a, 22). However, some have highlighted the difficulty in interpreting the remains (Wacher 1995, 272–4; Mattingly 2006, 270), and White preferred a military *fabrica* interpretation, while also noting there was 'no good evidence' for the courtyard building reconstruction (White 2001, 618), an observation echoed by Esmonde Cleary's review (Esmonde Cleary 2001).

The likelihood of the two buildings being part of a *principia* building can be investigated by examining possible parallels. A series of earlier, contemporary and later examples is shown in FIG. 12.2. The key defining traits of *principia* are their tripartite plan 'with a courtyard surrounded by colonnaded ambulatories, a lofty cross-hall and a rear range of rooms housing the regimental shrine, strong room and offices' (Johnson 1983, 104).

In terms of size, from the back to the front the hypothetical Silchester *principia* building would be at least 70 m deep. This would make it considerably larger than almost any auxiliary *principia*, which are generally much smaller, averaging at 30 x 25 m (Johnson 1983, 104), making an auxiliary unit implausible. The scale would rather suggest a legionary building, and Fulford cited the parallel of the *principia* building at the fortress of Longthorpe, which is still slightly smaller but comparable in scale (Frere and St Joseph 1974, 18). In Pitts and St Joseph's (1985, 86) search for parallels to the buildings in the fortress at Inchtuthil, their table of comparative *principia* suggested an average size in fortresses of *c.* 70 x 90 m, so comparable to Silchester.

In terms of the ambulatory, all the *principia* are unitary designs. The courtyards evolved to have only one entrance axially aligned on the shrine, making the legionary eagles both notionally visible from the entrance and also strongly protected. The Silchester configuration of buildings imagines the northern range as the cross-hall, but it is a separate structure which is in contrast to *all* the parallels, including Longthorpe. A *principia* building is a single structure protecting the shrine of the unit and the regimental treasury, not a collection of four discontinuous ranges. The Silchester structure would be of exceptional design if it were a *principia* building.

In a classic *principia* building the back range or cross-hall is also usually intended to be the imposing structure, higher that the rest of the courtyard buildings; in which case it should have deeper foundations. The foundation trenches of the Silchester building show no difference: the northern range (Building 1) has foundations 0.9 m deep, while the western range (Building 2) was also 0.9 m deep (Fulford and Timby 2000, 37, 39).

In terms of the flanking ranges, Silchester would be unusual in having a series of rooms, though this can be seen in later examples such as Fendoch.

In terms of positioning, if it were a legionary *principia* building, then it should be on the T-junction of the two principal streets, the east–west *via principalis* and the north–south *via praetoria* running south to the gate. There is no independent corroboration or hint of the existence of either of these roads in the geophysics. Also, if it were a *principia*, then evidence for other military buildings might have been expected in the open-area excavation of Insula IX, particularly barracks or a *fabrica*, which has not proved to be the case.

In conclusion, the Period 4 building does not have the formal characteristics of a *principia* building, so one of Fulford's other suggestions is far more likely for the building and the presence of military material should probably be interpreted in a different way.

SEARCHING FOR ANSWERS: OTHER EVIDENCE

If we do not have a formal rectangular fort, do we have any evidence for temporary camps, a compound or other form of military accommodation?

Large-scale military procurement was interpreted by Maltby as the cause behind a series of cattle deposits. He had himself identified pre-Flavian cattle waste from Fulford's excavations at the south-west corner of the town, and he recalled the early but poorly-dated evidence from the Antiquaries' excavations of a large cattle mandible deposit in Insula VI and a pit of horn cores from Insula XXXVI. The size of the cattle bones he examined was not over-large, making Maltby think that these were relatively early stock before breeding resulted in larger animals in the area (Maltby in Fulford 1984, 202; Sommer 1986, 642). Certainly Maltby's and the Antiquaries' bone deposits suggested large-scale procurement of meat and hides, though whether directly

by the military or for military supply is a moot point (these deposits are discussed in relation to tanning on p. 414).

What about temporary encampments? Fulford has speculated about tented accommodation within the Inner Earthwork and within Insula IX associated with his interpretation of the Period 4 building as being a military headquarters: '… we still lack convincing structural evidence in the form of barracks or other buildings other than the setting out of the north–south and, possibly also, the east–west street. This need not be a problem if significant military occupation was short-term and a move from assumed, temporary, tented occupation (associated with latrine pits) to more permanent accommodation had not been made before the departure of the army' (Fulford *et al.* 2013, 5). But if the military were camped outside the Inner Earthwork, are there any traces of possible locations such as Webster envisaged for a temporary camp?

Fulford has wondered about the Claudio-Neronian V-shaped ditch (2.6 m wide, 1 m deep) which pre-dated the early Amphitheatre (Fulford 2003, 101) (Exterior 14, Feature 9, FIGS 6.41–43). This was a long linear feature and can be seen continuing in the geophysics to Wall Lane where it was also captured in the water main watching-brief (at *c.* 796 m). The ditch contained a mass of Claudian and Claudio-Neronian wasters, which Timby considered to be an unusual group sharing some characteristics with pottery of a similar date from the military assemblage at Kingsholm (Glos.) (Fulford 1989c, 88–9). However, at 1 m deep, it is not significant enough to be a military ditch beyond a temporary marching camp. If projected north-north-east, it does potentially align with one of a pair of linear features continuing down the hill which may be a trackway with side-ditches (Exterior 11, Feature 3, FIGS 6.32–34). It does seem to be about the right size for a roadside ditch, although the trackway would have been cut off by the construction of the North-East Annex earthwork, as well as covered by the Amphitheatre bank (a replacement road to the north-north-east is discussed in pp. 335, 404).

A temporary additional military encampment adjacent to the town could provide a context for the creation of the North-East Annex which it is argued enlarged the Inner Earthwork to enclose the rest of the gravel spur on which Silchester was located. Chronologically this could be conquest-period, if one imagines the Amphitheatre was built later nestling into the corner of it; or it could post-date the Amphitheatre, if one imagines the Amphitheatre being incorporated and used as part of the defences. But there are no geophysical features within the enclosure suggestive of a temporary camp, such as latrine pits, so the only evidence would be irregularly-shaped defences.

Another possible location for temporary tented accommodation comprises the three parallel ditches to the north-west of the town (LP 3700 and 6200, Exteriors 8 and 9). This would be on the basis of a weak analogy with the rectangular tented area hypothesised behind the Triple Dyke at *Camulodunum* (Hawkes and Crummy 1995, 59, 178). While there is the lack of a clear defensive perimeter which makes this hypothesis unlikely, there was a rhythmic signature in the earth resistance survey which could be suggestive of serried ranks of tents (FIG. 16.2); but an alternative hypothesis for what these features represent is explored in Chapter 16.

In conclusion, evidence for a fort is lacking at Silchester. The hypothesised *principia* building does not formally look like any other *principia*, so probably is not one. No other military building types have been observed. There are no rectangular or trapezoidal shaped earthworks providing evidence for a fort's *fossa*, apart from the Inner Earthwork itself which is too early in date and would have been the size of two legionary fortresses in any case. This lack of a fort or fortress at Silchester makes it no different to *Verulamium*; it should not be seen as a problem. Nonetheless, the presence of military metalwork makes it clear there *was* certainly a military presence in the early Roman period, as well as some later on too, so an explanatory context is still needed for this.

THE MILITARY EQUIPMENT

The quantity of military finds accumulated over the years is significant. Equipment was recorded by Boon from the Reading Museum collections and the Basilica excavations (Boon 1969, 44–5 and fig. 5; 2000), and has been added to by the material from Fulford's Insula IX excavations. A recent preliminary analysis by Rimmell of the Insula IX material assessed there were 30 first-

century artefacts with military associations from Insula IX by 2012, and perhaps around 150 from the site as a whole (Fulford *et al.* 2013, 5).

Given these finds, what character and chronological emphasis do they have? For the Insula IX finds we await the full report, but from the Basilica excavation the finds congregate in Period 3 (*c.* A.D. 40–50/60) and particularly Period 5 (*c.* A.D. 85–125/50), with a significant dip during the supposed *principia* phase (*c.* A.D. 45–85). The Flavian deposits had more than the previous two periods combined. However, archaeology always needs to contend with the possibility of residuality, so we probably cannot read too much into this, and it will be interesting to see if a similar patterning appears in the Insula IX sequence. However, it is worth observing that the emphasis appears to be Flavian rather than the Claudian conquest period, though military equipment is present from early on, with a smattering of later material as well (e.g. third-century arrowheads: Boon 1957, fig. 11.8; Davies 1977, 264). Boon's assessment of the early metalwork was as follows:

> The character of this material is very much the same as might be expected from the debris of a legionary metal-working shop at Caerleon or any other fortress. There are fragments of the rather flimsy fittings of the segmented cuirass, known as the *lorica segmentata* – buckle- or strap-end plates, hinges, washers and rivets, one or two rosettes – and strap-union links, etc. … Here, in fact, are the very dregs of the armourer's box of scrap. (Boon 2000, 583)

This characterisation mirrored his assessment of the earlier material in Reading Museum, where he identified a lot of material as both legionary and non-legionary (Boon 1969, 44–5; for discussion of first-century segmental cuirass: Boon 1974, 67).

REDEFINING THE QUESTION

MILITARY EQUIPMENT ON NON-FORT SITES IN THE JULIO-CLAUDIAN ERA

Roman military material culture found without a fort still requires an explanation. The interpretation of early military material, and indeed deployment, in Gaul and elsewhere has been a similarly intransigent problem. Despite many years of developer-led archaeology Caesarean-Augustan forts in Gaul still appear to be as elusive as ever, though recent surveys are starting to collate the evidence that exists (Poux 2008; Reddé 2014, 122).

At Basel, an *oppidum* was established perhaps just before the Gallic Wars. The conquest of the Alps around the A.D. 10s saw the presence of abundant military equipment on the site, but again there was no obvious fort.

At the foot of another Helvetian *oppidum*, at *Vindonissa*, another settlement developed, Windisch-Breite, which has seen significant quantities of military equipment unearthed, but again no classic fort buildings. This pre-dated the arrival of Legion XIII in A.D. 14–16. The presence of a native Gallic auxiliary regiment was considered the most likely explanation here (Hagendorn 2003, 110; Reddé 2014, 125–6).

Perhaps the best case in point, where the evidence has looked nothing like a normal fort, is the *oppidum* of the Treveri at the Titelberg. Here large-scale geophysics showed the *oppidum* had been subdivided partitioning off to the west a rectilinear area. It was initially believed this had the potential to be a Caesarean or post-Caesarean military camp; but while the subsequent excavations revealed plenty of new military material, it was combined with building types that would be unfamiliar to Claudian or later Roman military archaeologists (Metzler 1995; Metzler and Gaeng 2009, 519–28).

> Given the present state of knowledge, the interpretation of these structures is not easy, especially given the absence of any comparisons in Gaul. Military equipment proves the presence of legionaries, probably of *auxilia*, and Roman cavalry. The associated material seems to indicate that this presence relates to the final stages of the occupation of this bounded area of the *oppidum*; how should we interpret the important Gallic ceramic assemblage, the large number of potin coins and many amphorae from the first half of the first century BC? According to the plan of the buildings, it seems clear that we are not in the presence of a conventional military camp. Could it be an enclave of Mediterranean traders established in

> the course of the first half of the first century BC on the edge of the settlement within the Treveran *oppidum*? Could this area have been kept after the middle of the first century BC by the Roman army? Could the palisade enclosing a much larger area indicate the limit of Roman property reserved for temporary military facilities? Given the unique nature of these structures, it is difficult to answer. (Metzler and Gaeng 2009, 520–1, trans. Creighton)

Excavation, as always, seems to raise more questions than answers; but the possibilities of protected Roman traders, a military enclave reusing buildings, or indeed a logistics base for the army, are all highly apposite in considering the Roman military equipment at early Silchester.

Early military equipment is not uncommonly abundant in urban contexts. From the new *ex nihilo* Helvetian town of Avenches (Switz.) comes a corpus of over 267 objects (Voirol 2002), and from the small town of Oberwinterthur (Switz.) an area of 15 houses produced 35 harness pieces (Deschler-Erb 1996). Another place where it is possible to see an albeit slightly exceptional early town in detail, without the later Roman and post-Roman layers, is Waldgirmes (Germany), where a *de novo* settlement was created around A.D. 4, 90 km to the east of the Rhine. It was constructed complete with a forum resplendent with a gilded bronze equestrian statue, presumably of Augustus, and at least four other statues. Even though the presence of a forum displays the civilian character of the settlement, the quantity of military material signified the presence of troops; but it was still a town, not a fort, and the interior buildings did not contain classic military structures, though one building to the west might be a solitary barrack-like structure with the centurion's quarters hived off. Many of the buildings along the main east–west street in front of the forum had porticoes added to them along their front suggesting the importance of trade and shelter (Becker *et al.* 2003; von Schnurbein 2003; 2010; Rasbach 2014; Becker and Rasbach 2015). We can conclude that it was not unusual for urban sites to have a military presence of some sort in the conquest and immediate post-conquest period, without there being a fort.

THE CREATION OF *AUXILIA* (FROM PERSONAL, TO TRIBAL, TO REGIONAL)

In the examples above the material could variously relate to detachments of legions or to the *auxilia*. Given the nature of Rome's inclusion of native forces into their army, and given that Silchester was probably part of the friendly kingdom of Cogidubnus around the conquest if not before, it is probably worth spending a moment to consider how the native troops were incorporated into the Roman forces. During the conquest many Gauls fought alongside Caesar, and afterwards many individual Gallic aristocrats committed to the Roman side, bringing with them their dependents. We have few details of what happened next, or how local forces were regularised, but we get hints of the process. Caesar reported during the Civil Wars how two nobles of the Allobroges had been militarily useful to Caesar, and he had bestowed on them lands taken from the enemy, honours and money. Unfortunately they fell from grace as their troops complained to Caesar that their pay was being top-sliced by the nobles (Caesar, *Bel. Civ.* 3.59). The money for the new native units was being paid through the Gallic nobles in charge rather than through a Roman paymaster, thereby empowering individuals of the established elite. We see this kind of pattern in the early names of some of the auxiliary cavalry, seemingly a direct continuation of the kind of *comitatus* existing up to the Gallic Wars: the *ala Augusta Gallorum Petriana*, *ala Gallorum Atectorigiana* and *ala Longiniana Gallorum*, all named after the cognomen of their leader (Birley 1978). It is possible this continued with the *ala Indiana* (later posted in Britain); this cavalry unit was named after Iulius Indus, a Treveran sent by Tiberius to combat the revolt of another Treveran, Iulius Sacrovir, in A.D. 21 (Tacitus, *Ann.* 3.42). However, the majority of the *auxilia* within Gaul were units that were named after individual tribes. Reddé has pointed out how in Gaul the tribally named units, such as the *cohors I Menapiorum*, tended to come from an arc of communities close to the German frontier that were *liberae* and *stipendiariae civitates* according to Pliny the Elder's list of the legal status of the *civitates* in Gaul (*NH* 4.106–9), as opposed to *foederatae civitates* (Reddé 2014). In addition, there were also troops raised under the transnational ethnic identities of *Gallorum* or *Aquitanorum*.

In the years between Caesar and Claudius, the various southern British dynasties appear to have had close relationships with Rome, and I have argued elsewhere that they were, in all

probability, client or friendly kings (Creighton 2000, 80–125, 174–215; 2006, 14–45). Given the interchange in this era, it is highly likely that occasionally Roman forces may have been present alongside Rome's friendly kings, and that British *obsides* may have spent time in the Roman army, adopting some of their trappings themselves. Commius himself had his retinue which would have come with him to Britain after he had surrendered to Marc Antony; his retinue had a history of fighting long and hard both with and against Caesar. All of Commius' successors would similarly have had their own forces; indeed Adminius when he was banished by his father, Cunobelin, fled to the Continent accompanied by a small troop (Suet., *Gaius* 44). Archaeologically these might be indistinguishable from Roman cavalry or early auxiliary infantry. Within Britain, sites like Fishbourne provide evidence for 'Roman' military material culture on pre-conquest settlement sites which could be interpreted in such terms. Many friendly kingdoms on the edge of the Roman world developed forces of their own which adopted aspects of Roman military structure, tactics and equipment (Creighton 2006, 46–69). If the Late Iron Age political entity that ruled *Calleva* on the eve of conquest had forces influenced by Roman military practice, then it is not unlikely this continued into the period of Cogidubnus' friendly kingdom; indeed it is likely that such forces were at some point accommodated within the Roman auxiliary. What historical evidence do we have for this process of incorporation in Britain?

AUXILIARIES IN BRITAIN

Boon observed, in Tacitus' narrative of the first Icenian revolt of A.D. 47–8, how Ostorius Scapula employed *socialis copias*, usually translated as 'auxiliary troops', but actually meaning allied troops (Tacitus, *Ann.* 12.31; Boon 1969, 37); perhaps these included men from Cogidubnus' kingdom? Certainly the levy on men was one of the issues that Tacitus places into his litany of complaints expressed by Boudica and Calgacus (Tacitus, *Agric.* 15, 31). It is likely recruitment began shortly after the conquest, but our solid evidence generally comes from later sources. Certainly one *ala Britannica* was in existence by A.D. 69 fighting with the forces of Vitellius, but beyond that a lot of interpretation is fluid.

Do we have any evidence for troops from the Cogidubnian kingdom in the naming of auxiliary regiments? If we were to develop by analogy from the situation in Gaul, we might expect communities not too distant from a frontier area, who were *civitates liberae* or *stipendiariae*, to be forming divisions under their own ethnic names; but in Britain there is only one obvious example of this, the *cohors I Cornoviorum*; otherwise all of the units are simply referred to as 'British'. However, unlike the *cohors I Hispanorum*, *cohors IV Gallorum eq* or *I Aquitanorum*, the British regiments are spelt in two distinct ways: the earlier *cohortes* and *alae Britannorum* and the later *cohortes* and *alae Brittonum*. The meaning of this differentiation is unclear: 'it must remain obscure why the Romans differentiated this with the titulature of the units raised in this island. One possible explanation is that those formed in the original province were called *Britanni*, while the ones created among the peoples overrun by the Flavian governors Cerialis, Frontinus, and Agricola were called *Brittones*' (Birley 1979, 101). This view of a north–south distinction is the one that Frere and others have generally held to (Frere 1967, 225). These two different forms can also be found in Latin literary sources from early on. Both Martial and Juvenal use both in the later first century; Martial's are not geographically specific, so do not help us (11.21 and 11.53), but Juvenal uses *Brittones* twice when arguably talking specifically about the North — once associating *Cimbrians* and *Brittones*, and once in a reference to an omen relating to the capture of a British king (Arvirargus), presumably relating to Agricola's campaigning (15.124 and 4.127). Unhelpfully Tacitus did not make any distinctions and called everyone *Britanni.*

This is relevant when considering the name of Cogidubnus' kingdom. He was referred to as Great King of Britain (R[EG·MA]GNI·BRIT; *RIB* 91), and he is often imagined as the successor to Verica and his heirs, though their kingdom never had a recorded name. Their coinage is conventionally called Atrebatic, but that is a back-projection from only one of the *civitas* names that may have been in his dominion which is first recorded in Britain by Ptolemy in the second quarter of the second century A.D. The size and scope of Cogidubnus' kingdom certainly included multiple domains (cf. later *civitates*) as Tacitus makes clear (*Agric.* 14), but interpretations have varied

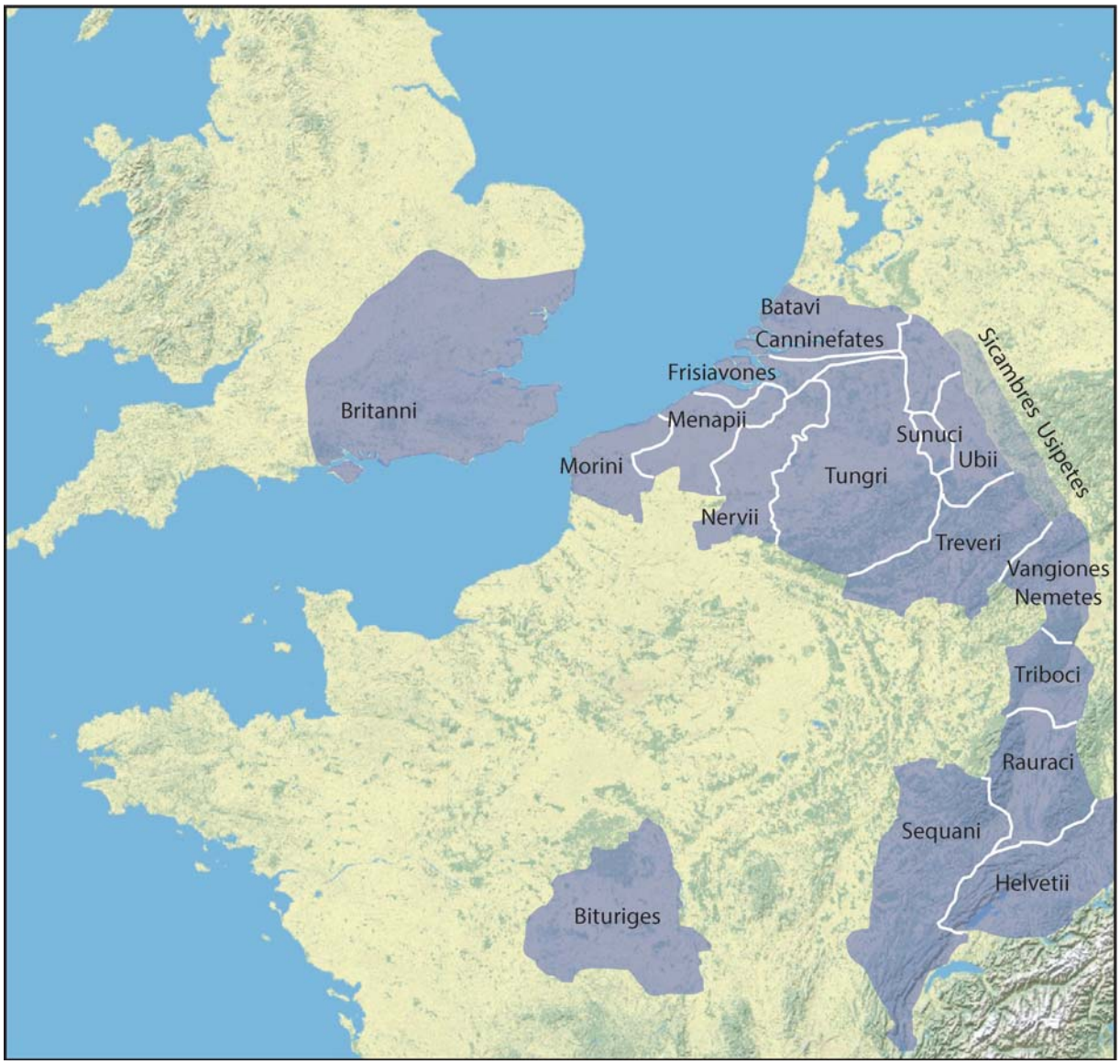

FIG. 12.3. Gallo-Roman *civitates* providing auxiliary recruits named after the tribe (after Reddé 2014, fig. 8) with a notional representation of the kingdom of Britannia, as stated to be held by Cunobelin and Cogidubnus.

from the more common concept that it just included those of the Regni, Belgae and Atrebates (i.e. the old Southern Kingdom of Commius' descendants), to incorporating most of southern Britain except for the colony of *Camulodunum* (Haselgrove 1984, 36). If Cogidubnus' title was *Rex Magnus Britannorum*, it chimes with Cunobelin's title *Britannorum Rex* (Suet., *Gaius* 44).

While Cunobelin has often been imagined as being at war with his neighbours, his brother Epaticcus' gold coinage, which appears around Silchester, followed the Commian dynasty's tradition of imagery and legends, using filial titles and a spear and a shield on his horseman rather than the Tasciovanian carnyx. Similarly, Eppillus of the Commian dynasty in Kent adopted Tasciovanus' carnyx on his coinage. This imagery swapping may have denoted alliance or intermarriage of the dynasties rather than two families at war (Creighton 2000, 104–5). Similarly Cunobelin's aggression is often blamed for Verica's flight to Rome, but Dio Cassius does not say that: it is only a modern inference that the cause was pressure from the Tasciovanian dynasty to the north, and not civil strife (Dio Cassius 60.19). Southern Britain may not have been as fractious a place as is commonly envisaged, and Cunobelin could easily have held an overlordship position, like the Bretwalda of early Anglo-Saxon Britain, which passed on to the creation of Cogidubnus' position.

Given this kind of reading, it is not implausible to imagine that just as the tribes of Gaul raised auxiliaries for Augustus and Tiberius, so early on troops were raised within Cogidubnus' kingdom, with the titles *ala I Britannica*, *cohortes I–III Britannorum*. At Silchester we should expect to find not only that the town was a centre for the *comitatus* of the Commian dynasty and Epaticcus' retinue, but also evidence of the recruitment and provision of new forces ready to be fed into the developing auxiliary forces. Just as continental sites in the early generations of post-Caesarean conquest have failed to show forts but are revealing military metalwork and are historically recorded as providing troops, so the same is probably happening here. Even if we cannot see the forts, the ecological infrastructure to support cavalry was in place in the Late Iron Age around Silchester, with the early development of hay meadows to feed the horses as evidenced by pollen from a well from the Basilica site (Keith-Lucas in Fulford and Timby 2000, 533).

The Period 4 building underneath the Basilica may not be the *principia* building of a fort, but it is on a size and scale that was nonetheless impressive. Its alignment related to the new north–south road that cut across the site in what was to become a radical reorganisation of the town creating a Roman orthogonal plan. Perhaps it did have a military function, but not in the classical developed Roman fort way, but more like the ambiguous buildings on the Titelberg and elsewhere. Perhaps White was right in his review of Fulford's excavation, and the building is more like a *fabrica*, than a *principia* or forum, hence explaining the metal-working there (White 2001, 618). However, personally I prefer an alternative non-military interpretation altogether which is developed below (pp. 410–11).

AFTER COGIDUBNUS' KINGDOM

As time moved on the construction of forts in the province provided the infrastructure for training and housing new recruits and levies into the auxiliary regiments. Nearly all the British auxiliaries went abroad, many ending up on the Danube where the units gradually started recruiting locally.

The final *floruit* of Roman military material on the site is in Period 5 (*c.* A.D. 85–125/50) on the Basilica site, dating to the construction of the first timber Forum-Basilica, replacing whatever the earlier structure was in the heart of the town. After the friendly kingdom, as James has reminded us, while military bases may have become fixed and gradually transformed into stone, soldiers were not. Significant numbers were sent on detachment away from their home bases: on secondment with the governor or procurator, procuring supplies, conveying messages etc. (James 2001, 82). Once the province had settled down, it is likely Silchester would have had *beneficiarii consulares* stationed within it, as at nearby Winchester and Dorchester-on-Thames (*RIB* 88 and 235), charged with responsibilities spanning the imperial post, taxation and policing; and there may have been *centuriones regionarii* policing the region as in the North of Britain (cf. *Tab. Vind.* I.250), perhaps billeted or eventually based in the *Mansio*. James noted that the *beneficiarii* had distinctive badges of office, symbolic lances, recalling that Boon had already observed that the symbolic device had been worked into a third-century baldric-plate found at Silchester (cf. Boon 1974, 68, fig. 8.4).

CONCLUSION

Calleva in origin was probably a settlement of some of the Commian dynasty and their associates, including their protective *comitatus* in support on horseback, Gallic and Roman tradesmen opening up in this new land of opportunity, and all of their associated families, slaves and freedmen. All of these ate and drank in novel alien ways in the eyes of the regional Middle Iron Age population who probably also settled there to provide support and manage the fields. In this scenario, military material culture in the Later Iron Age and earliest Roman contexts could come from Roman troops accompanying Roman traders entering new areas. Equally it could represent the trappings of Later Iron Age forces dressed in a Roman manner, soon to be incorporated into the Roman *auxilia* after the Claudian invasion, the recognition of Cogidubnus' British Kingdom and the eventual creation of the province of Britannia. There should be no anxiety in the inability to find a classic Roman fort at Silchester; what we find is little different to continental *oppida* and early towns.

CHAPTER 13

CEMETERIES AND HUMAN REMAINS

INTRODUCTION

The discovery in 1577 of the tombstone of Flavia Victorina is one of the earliest reported finds from Silchester (*RIB* 87). It generated so much interest that it was rapidly transported to Queen Elizabeth's Chancellor, Lord Burghley, in London for study, in whose possession it was observed by William Camden. Late Elizabethan England was the time when Camden and others founded an early forerunner to the Society of Antiquaries; amongst its membership was a former pupil of his, Sir Robert Cotton, first Baron of Connington. The two became firm friends and in 1600 toured Hadrian's Wall and the North, acquiring on their way inscriptions and Roman coins to add to Cotton's collection, which already included the richest private library of manuscripts of the nation's past. So it is probably not surprising that the Silchester tombstone passed into Cotton's possession and was moved up to his estate in Conington in Huntingdonshire. The inscriptions were passed by a descendant to Trinity College Cambridge around 1750, and from there to the University's Museum of Archaeology and Anthropology in 1969; curiously Trinity also have a record of the Revd John Paris passing title to the stone to the college, his *alma mater*, in the early eighteenth century (Camden 1610, 272; Horsley 1732, 332; Thomson 1924, 103–6; Davies 1997, 162–4; McKitterick 1997, 111–13). Yet despite the tombstone receiving peerless early attention, gaining an audience amongst the early antiquarians, the cemeteries of Silchester have remained virtually unstudied. The later Society of Antiquaries' ambition to explore the cemeteries was never realised as their campaign lost steam and attention moved to Old Sarum; otherwise Silchester might have seen the first large-scale Romano-British burial ground excavation, but it was not to be. Boon managed to stretch the meagre evidence on cemeteries to only two pages within his magisterial work on the town (Boon 1974, 185–6); not unreasonably so, as the evidence was limited to this solitary tombstone, a sarcophagus from the north of the town and evidence for cremations being turned up by the plough in a number of areas and from the Outer Earthwork. This lacuna in our knowledge has meant that since the mid-1990s developing a sense of the mortuary landscape around the town, and then sampling cremations and late antique inhumations, has been stated as a high priority (Fulford 1996, 31; Fulford and Allen 2010).

In this chapter we will review all the evidence, combining antiquarian and excavation finds with fieldwalking and geophysical survey results, and attempt to reconstruct the mortuary landscape in and around the town (FIG. 13.8). While much evidence is based on the triangulation of multiple sources, some argument will rely solely upon the interpretation of geophysics without any other evidence to corroborate it, and appropriate notes of caution will be aired. Alas, many surveys of Roman towns have not ventured outside the town limits to provide comparative images of what the response from an urban cemetery might look like (e.g. White *et al.* 2013). While some of the conclusions will remain hypothetical until ground-truthing can test and sample what is there, others raise questions which can be tested against the datasets of geophysical surveys from around other Roman towns, particularly in searching for funerary pyre areas. The chapter first surveys the excavated material from within the town, and then examines evidence for burial enclosures, cremations and inhumations largely, but not entirely, outside the town. In each case expectations of what we might reason to find based on other sites in the South-East is contrasted with the actual evidence.

REMAINS FROM WITHIN THE TOWN

EXPECTATIONS

Classical convention would have it that, with the exception of infant remains, no burials should be expected within the confines of a Roman town. However, the boundary of the town changed over time: the area between the Inner Earthwork and the eastern Town Wall was once 'outside', so early burial may have taken place here. Also, since Silchester had pre-Roman origins, we might expect a hang-over from the Middle to Late Iron Age heritage of the area. This could include excarnations, with selected bones deposited within settlements, particularly boundaries, and the occasional body in a pit. The deposition of partial human remains on Roman sites in Hampshire certainly lessened, but never quite disappeared (Pearce 1999, 93–5; 2013, 87; 2015, 148).

INFANT BURIALS

The occurrence of premature, neo-natal and infant burials within pits, wells and post-holes on Roman sites is now a well-recognised phenomenon (Scott 1991; Moore 2009). There seems to be a broad shift from them appearing in partly-filled ditches in the Iron Age, as at Gussage All Saints and Owslebury (Whimster 1981, 28; Collis 1977, 26–8), to being found more commonly in the foundation trenches of buildings or under floors. Usually they come from private houses, but occasionally they are discovered in public buildings, such as the one buried beneath the floor in the Baths-Basilica at Wroxeter (Kenyon 1940, 188). Occasionally some were buried in larger official cemeteries (e.g. Poundbury: Farwell and Molleson 1993), though they could also be placed into smaller discrete cemeteries of their own. Examples of the latter in the vicinity include the villas at Barton Court Farm (Oxon.) and Hambleden (Bucks.) (Cocks 1921, 150); or in an urban context at Alcester (Philpott 1991, 97; Mahany 1994, 145–7), Southwark (Ridgeway *et al.* 2013, 10) and Dorchester (Dorset) (Trevarthen 2008, 38).

TABLE 13.1. INFANT REMAINS WITHIN THE TOWN WALLS

Insula I	– two infant skeletons were found in 1890, one from an unspecified pit containing a child about a year old, the other a little to the west of the detached square building south of House I.2, placed in a small urn (Fox and St John Hope 1890, 743–4).
Insula IV	– Joyce found infant bones at the entrance to the Forum (Balderston 2002, 8); fragments of a newborn were also found in 1892 in a pit to the north of the Forum (Fox and St John Hope 1893a, 572).
Insula IX	– the early material has yet to be reported on. However, six finds of infant remains from the mid-Roman layers are reported on by Lewis: two fragments and a neonatal burial from Period 3 and three fragments from Period 4 (Fulford and Clarke 2011a, 241–3). From the later Roman layers Snelling identified: a near-complete skeleton of a pre-natal infant from Pit (3251); seven long bones from at least two pre-natal infants from Pit (3235); a skull fragment and long bones of a pre-natal infant from Pit (1707); a long bone of a pre-natal infant from Well (1682); and a neonatal fragment from the foundation of Building 1 (1422) (Fulford *et al.* 2006, 201–2).
Insula XXXIII	– several skull bones of very small babies were found in 1903–4 in the latrine pit of the Public Baths (St John Hope and Fox 1905a, 369).
From either Insula XXVIII (west) or XXXV	– parts of two very young (? neonatal) babies were found in 1907, identified by Newton (St John Hope 1908, 213–14), though on re-examination by Balderston (2002) three infants are represented.
During the final years of Langshaw's excavations	– infant remains were found in a jar covered by a 'saucer of dark clay' and displayed by Dr Woodhouse in London, but no further details are known and it was not referred to in Hilton Price's publication of Langshaw's work (Anon. 1883).

At Silchester, over a dozen have been found during excavations, half coming from the recent work in Insula IX, which more implies a failure to identify them in earlier excavations than suggesting Insula IX was particularly exceptional. There is no obvious patterning in the distribution of remains found by the Antiquaries, so little advance can be made beyond Eckardt's discussion of the specific contexts of the finds within Insula IX (Fulford *et al.* 2006, 225–6). Many of the earlier remains have recently been re-analysed by Balderston (2002).

INHUMATIONS AND CREMATIONS

Four inhumations and one cremation have been excavated from inside the town.

The earliest burial came from the Basilica excavation, where a young adult male inhumation was discovered in a large pit to the south-east of Lane 3; it was found in an extended supine position with bronze-working mould fragments (F1297: Period 2–3; 15 B.C. to A.D. 50/60). Fulford wondered if the pre-Basilica remains of this burial together with other skeletal fragments might be 'outsiders', victims of war, slaves or other groups, though there was no distinguishing pathology on the complete skeleton other than showing the individual had been engaged in hard physical labour (Fulford and Timby 2000, 548). This line of argument echoed that once used for burials in Iron Age pits in southern British hillforts, that these must represent criminals or other people marginalised from society; nowadays more ritualistic interpretations are considered (Hill 1995; Lally 2008, 124; Madgwick 2008, 101).

Another body was found in the *Mansio* bathhouse in the 1830s, and this evoked an even more fanciful interpretation at the time. It was imagined to be a Briton killed by a Saxon as they tried to hide a coin hoard which was found nearby. It is, however, a rare example of a British context for a Late Roman burial within the settlement area as the structure of the town fragmented (for a parallel in London, see Perring 2015, 38; Pearce 2015, 145; or for Late Roman burials in the hypocausts of the Wroxeter Public Baths, see Ellis 2000, 369).

The only cremation discovered in the town was found on its own in the south-west corner of Insula XIX, close to Block XIX.II. The Antiquaries made little of this building, but Boon thought it could be a small mithraeum (Boon 1973, 112; 1974, 159; 1976, 397), though it lacked any of the common internal features, and the idea has not been picked up by others.

TABLE 13.2. INHUMATIONS WITHIN THE TOWN WALLS

Insula IV Basilica	– one complete (Period 2) and one partial (Period 3) inhumation were reported on by Janet Firth (Fulford and Timby 2000, 501–5).
Insula IV Basilica	– a fragmentary inhumation was found high up in the stratigraphic sequence, so possibly Late or sub-Roman (Joyce's Journal, 16 May 1867).
Insula VI	– an adult inhumation with worn teeth was found in 1905, in a shallow grave in House VI.1 Room 17 (St John Hope 1906, 159, 164–5).
Insula VIII	– an inhumation was found in the *Mansio* bathhouse by the Revd J. Coles (Kempe 1833, 125).
Insula XIX	– a cremation was found in 1898 in the south-west corner of Insula XIX in a large black vessel (St John Hope and Fox 1899a, 237).

FRAGMENTARY REMAINS: SKULLS AND MISCELLANEOUS FRAGMENTS

Skulls

Human remains, particularly skull fragments, were found outside the North and West Gates. The idea that they came from disturbed burials cut through by the ditch was considered by Fulford and Firth, but rejected. Only skulls and long bones were found and there were no signs of truncated graves. Since the Gates and Town Rampart were erected *c.* A.D. 180–200, any earlier disturbed burials would have been likely to have been cremations; however, no calcined bone

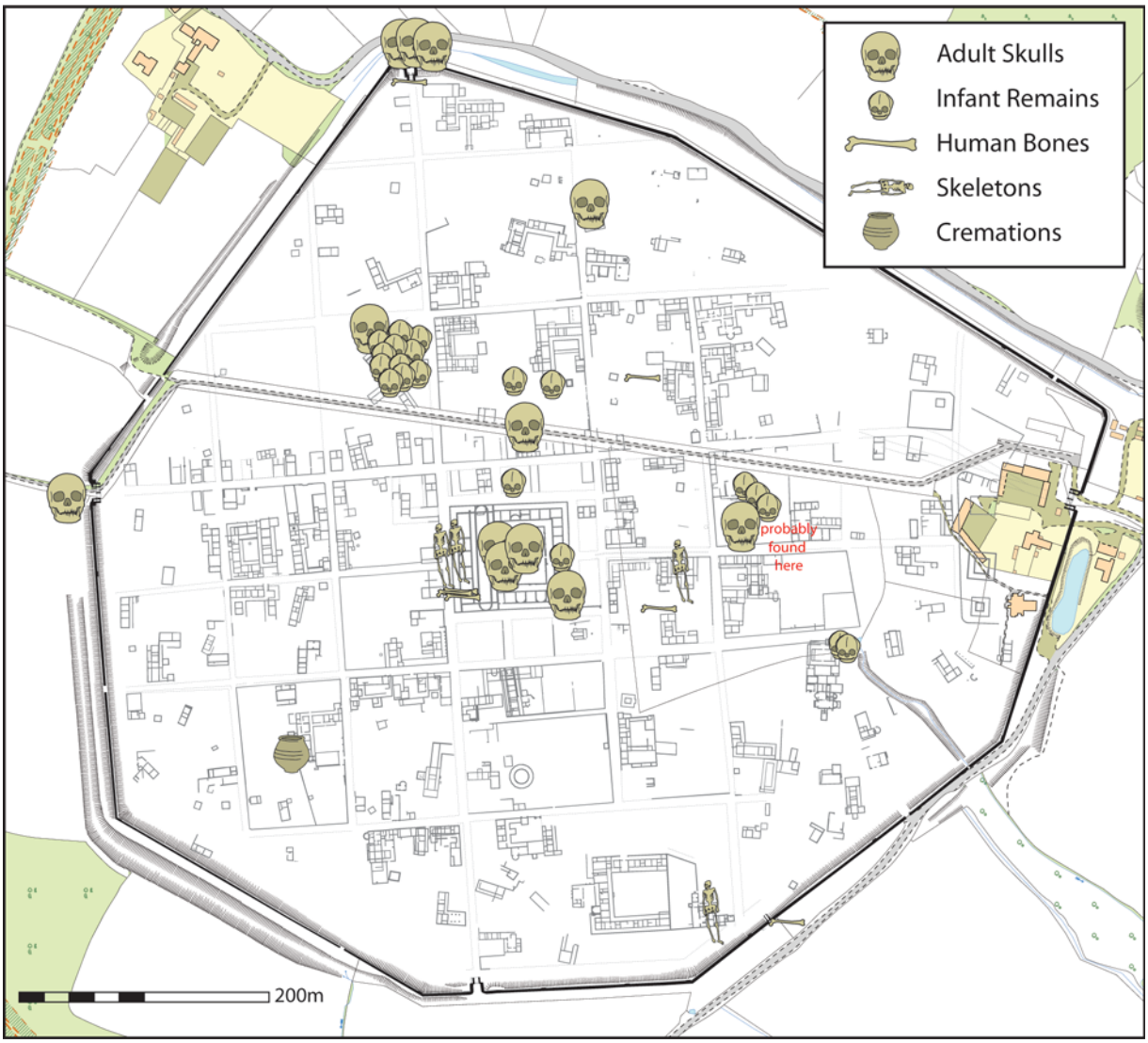

FIG. 13.1. Distribution of human remains within the Town Wall.

was recorded in the excavations. The conclusion that they represent the display of victim's heads upon the gates is tempting and is discussed by Fulford (2000a). The other location where a number of skulls were found was around the Forum, which again makes public display not implausible. Redfern and Bonney (2014) pointed to a similar group from the Walbrook Valley in London which they also thought had been on display.

Other human skeletal fragments

Fragmentary human remains have been found in a variety of locations. As stated above, this phenomenon was common on Iron Age sites, and many of these remains probably come from the Iron Age phases of the town. Those from beneath the Basilica are unambiguously stratified in early contexts (Fulford *et al.* 1997, 131); but they can be complemented by several finds from the Inner Earthwork ditch: first, the skull fragments from Boon's Trench B and secondly, a long bone found in a deposit just outside the 'Sluice Gate' which happens to be where the Town Wall crosses the filled-in Inner Earthwork. Other early finds include the skull fragment from the North Gate which had a radiocarbon date of 550–200 B.C. (1σ, OXA 8732), suggesting the presence of early material. The North Gate is also located in an area where the Town Wall Ditch would have cut through the earlier defences. In conclusion, the deposition of disarticulated remains certainly

TABLE 13.3. SKULLS FROM SILCHESTER

Insula I	– a skull fragment was found in the south of the insula in 1890 (Fox and St John Hope 1890, 743–4).
Insula IV	– fragments of a human skull were found near the south-east angle of the Forum area in 1892, and the Antiquaries also reported Joyce having previously found parts of two or three skulls broken into fragments from the Forum (Fox and St John Hope 1893a, 572).
Insula IX	– two joining adult skull fragments came from a Period 3 context, identified by Lewis (Fulford and Clarke 2011a, 241–3).
Insula XXIII/XXIIa	– three small fragments of human cranium came from Boon's excavation of the Inner Earthwork (Trench B) (Boon 1969, 52).
Insula XXVIII (west) or XXXV	– an adult jaw from 1907 was identified by Newton (St John Hope 1908, 213–14).
West Gate	– 'fragments of human skull' were found in 1890 (Fox and St John Hope 1890, 757).
North Gate	– a crushed skull was found buried three feet down under a stone in the counterscarp of the ditch (St John Hope and Stephenson 1910, 323). Further fragments came from five locations in 1991, two in a deposit sealed by a gravel layer with a *terminus post quem* of A.D. 295, with the rest from later or unsealed contexts reported on by Firth (Fulford *et al.* 1997, 129). One fragment was dated to A.D. 420–540 1σ (OXA 8733) (Fulford 2000a).

continued after the foundation of the *oppidum*, but stratigraphically it is unclear for how long. This all appears to show a degree of continuity with Iron Age burial practices, even amongst a community using in other respects significantly Romanised assemblages of material culture. It will be interesting to see if such evidence continues to be found in the early levels of the Insula IX excavations.

TABLE 13.4. OTHER HUMAN REMAINS FROM WITHIN THE TOWN WALLS

Insula IV, pre-Basilica	– bones from three individuals, and some nail-clippings which had been cut with a knife (from the Period 1 well), reported on by Firth (Fulford and Timby 2000, 501–5).
Insula VI	– part of a 12–14-year-old human skull and arm-bones from a wood-lined well in north-west quarter (St John Hope 1906, 161, 165). Note, this was not from Insula IV as stated by Snelling (Fulford *et al.* 2006, 204)
Insula XXI	– a pit produced various long bones from a 'man' of small stature in 1899, identified by Garson (St John Hope and Fox 1900, 111).
South-East Gate	– a femur was found in the Town Ditch just outside the 'Sluice Gate' in 1892 (Fox and St John Hope 1893a, 572).
North Gate	– various long bones and a rib were discovered in 1991, including a femur with cut marks on it, identified by Firth (Fulford *et al.* 1997, 129); the latter fragment was dated to 550–200 B.C. 1σ (OXA 8732) (Fulford 2000a).

AYLESFORD-TYPE BURIALS AND ROMAN CREMATIONS

EXPECTATIONS

By the late second century B.C. contact with Gaul saw the development of new burial rites in South-East Britain, with the earliest examples coming from Baldock's 'The Tene' (Herts.) and Westhampnett (W Sussex) (Stead and Rigby 1986; Fitzpatrick 1997; for an overview see

Fitzpatrick 2007). These rites are characterised by urned cremations accompanied by a few intact grave-goods, such as brooches, and are commonly termed Aylesford-type burials after the eponymous cemetery excavated by Evans (1890). In North-East Gaul these cemeteries have a discontinuous distribution. Their primary focus is on the Rhine, but there are other clusters to the west in Champagne and elsewhere. So too, in Britain the focus is in Hertfordshire, Kent and Essex, while there are plenty of outliers, such as at Westhampnett in West Sussex and Owslebury in Hampshire (Collis 1977; Fitzpatrick 1997, 228). Many of our Late Iron Age excavated examples come from small groups on rural sites, rather than from defined cemetery areas; sites like Owslebury being the exception. Where we do find cremations within *oppida* they often appear to be in multiple groups, such as at Baldock. These clusters are often associated with dyke systems, such as at King Harry Lane, *Verulamium* and the Lexden cemetery at Colchester. Given the start date of *Calleva* in the mid to late first century B.C., it would be highly likely that there should be one or more Later Iron Age cremation clusters in the area.

The kind of morphological features we might expect would not only be the cremation burials themselves, but also traces of the funeral pyres. At Westhampnett 11 of these were identified, characterised by X-, Y- or T-shaped channels cut into the ground to draw air to fuel the fires, generally no larger than 1.5 m in size. These might be too small to see in the geophysical data, but if used repeatedly then an elevated magnetic signature from the burning might be visible. Westhampnett also produced a series of small enclosures about 4–5 m in size, sometimes containing pyre debris within them, but not obviously pyre sites. Three of them produced fired daub suggesting they were structures, and two were thought to parallel the kind of shrines found at Danebury (Hants.) and Heathrow (Middlesex). This group of buildings was separated off to the east of the cremations (Fitzpatrick 1997, 15–32, 229–34). At Westhampnett the cremation pits were arranged in a pattern radiating out from a circular area; while at King Harry Lane cremations were focused around a series of rectangular enclosures, each of which appeared to have a 'primary' or 'founder's' burial. Some sites, such as King Harry Lane, continued beyond the Claudian conquest, though in many places new cremation cemeteries can be found.

Moving on chronologically, Early Roman cremation cemeteries in the region include St Pancras, Chichester, which lasted from *c.* A.D. 70 to the third century (Down and Rule 1971, 53–126), and Victoria Road East/Hyde Street in Winchester (Ottaway *et al.* 2012). The rite is not dissimilar to that in the Late Iron Age. Urned and un-urned cremations with one or two pots, though sometimes as many as seven or eight pots and occasionally a casket, are the normal urban rites. However, Millett has observed that in rural areas cremations had significantly more pots associated with them, often 10 or more and occasionally over 50; this he distinguished as the 'East Hampshire tradition' and interpreted as part of a phenomenon whereby elites did not take up residence in towns until later (Millett 1987). While cremations predominate, there are also occasional inhumations.

The evidence at Silchester will now be reviewed.

CREMATIONS INSERTED INTO THE OUTER EARTHWORK (RAMPIER COPSE)

In 1900 an unlocated excavation in Rampier Copse reported on by Karslake found what appears to be a kind of *bustum*, where a body was burnt and buried *in situ*. The description suggests a cutting was made into the Outer Earthwork Bank; then the corpse was laid-out on a north–south bier and burnt, leaving the remains of charcoal, nails and hobnails where the feet had been. The cremated remains were then separated and placed in a greyware pot placed where the head had been. It is not quite clear if this was on the inside or outside of the earthwork, though Karslake also reported that 'burials seem almost continuous on the inner slope of the mound', suggesting his activities were not limited to the one cutting into the bank (Karslake 1910, 330). A similar feature was noted by St John Hope and Stephenson in another section of the Outer Earthwork within Rampier Copse, excavated in 1909 (their second cutting, east of their exceptionally long 1000 ft trench; FIGS 6.50, 59 and 62). This time they found a platform cut into the mound with calcined bone and burnt bronze, but no urn (St John Hope and Stephenson 1910, 318, 326–7). Bearing in mind it was only Karslake who reported finding a cremation urn, it would make sense

if this was the late first- to early second-century cooking pot containing cremated bone observed by Timby in Reading Museum, labelled 'Rampier Copse' (Fulford and Timby 2001, 294). Black, in his survey of burial customs in South-East Britain, considered this kind of *busta* relatively common in the Rhineland, but fairly rare in Britain (Black 1986, 210, 217; see also Booth 2010, 502–4; Pearce 2013, 31–3).

The Rampier Copse enclosure, of course, is no longer a complete enclosure. Its northern and eastern banks were levelled. When this happened is unclear. Colt Hoare still depicted the eastern side showing to some degree at the start of the nineteenth century (Hoare 1821). However, it was ploughed so flat that Fulford began to doubt its existence (Fulford 1984, 82–3). It was noticeable that Corney came up with a pre-Claudian scatter of pottery over precisely this area, dominated by early handmade grog-tempered ware with distinctive squared-off rims (Corney 1984, 249). Could it be that these were ploughed-out ceramics inserted into the earthwork, as had happened on the south-western side?

No interments have been reported in any of the other cuttings into the Outer Earthwork; this suggests the phenomenon was limited to the Rampier Copse stretch which may have been a deliberate reuse of this probably earlier earthwork.

Another location where pits were cut into the back of a bank is in that of the North-West Annex (LP 4172, Exterior 8, FIGS 6.23–25). The geophysical results show that immediately inside the bank there is a large number of small pits. They are not particularly magnetic, so unlikely to be *busta*, and without excavation it is impossible to say if they might be cremations; no cremated bone was reported by Corney from fieldwalking that part of the field. But if any future work is planned, it is worth investigating whether it is a related phenomenon or something entirely different.

If we look to see if similar things happened elsewhere, then Oram's Arbour, the earlier boundary enclosure at Winchester, and Dyke Hills at Dorchester-on-Thames are obvious parallels to examine. At both no cremations have been reported inserted into the banks, though later Roman inhumations had been inserted into each of them (Ottaway *et al.* 2012, 171; Booth 2014).

THE WESTERN CREMATION CEMETERY

A second area known from fieldwalking and excavation is in LP 4172 (Exterior 13, FIGS 6.38–40, 13.2, 13.8). The plough brought up a cluster of pottery and calcined bone in 1979, so a one-day excavation was undertaken by Corney to investigate the survival of the likely cremations. Two small trenches were dug; one contained six urned burials of which three were lifted, while the other revealed a single burial. The date range was A.D. 80–130, and their compact spread within the main trench suggested an intensive use of space (Corney 1984, 293–7; Grew *et al.* 1980, 394–5). Each burial contained one or two pots, except for one which included eight. This pattern is comparable to that at Victoria Road East, Winchester, where three-quarters of the burials had one or two pots with them, while a few had significantly more (Ottaway *et al.* 2012, 85).

The fluxgate gradiometry showed these cremations were within an irregularly shaped spread of small anomalies which had firm northern and eastern boundaries. To the north is the putative early road, giving the burials a prime roadside location (see p. 327), while on the eastern edge of the burials is an area containing a series of small rectilinear enclosures, perhaps shrines or small individual burial enclosures. Curiously the arrangement was exceptionally reminiscent of the layout at the earlier cemetery at Westhampnett, even though the latter is considerably earlier. These are both shown on the same scale and orientation in FIG. 13.2 (Fitzpatrick 1997; 2000, 22–7).

Corney's excavation took place on the western edge of the main pottery scatter, FH:86, which was a 2150 m^2 spread of predominantly Flavian-Hadrianic material, lacking earlier and later material, so fitting in with the broad dating of the excavated remains. If the cremation urns were being brought up by the plough, then a correlation with the pottery scatter might have been expected. It could be that the pottery scatters represent an area that only now survived broken up in the plough-zone, while the geophysically signed area shows those left. However, the hard eastern edge to the geophysical cremation pattern suggests a real demarcation. Perhaps the pottery comes from pyre sites in an adjacent area around these 'shrines' and small enclosures.

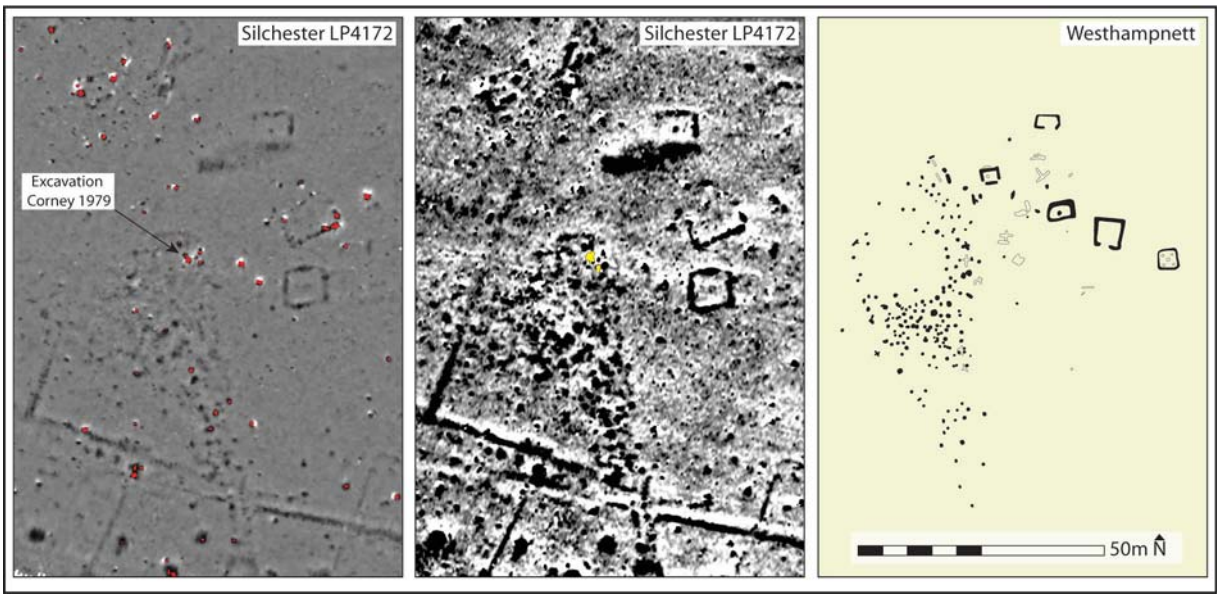

FIG. 13.2. Western Cremation Cemetery. Fluxgate gradiometry with readings >15 nT in red (left); English Heritage Caesium Vapour Gradiometer survey, with excavation shown in yellow (middle); Westhampnett Late Iron Age cemetery at the same scale (right).

English Heritage conducted a Caesium Vapour magnetometer survey in this part of the field to see if any greater clarity could be observed; the results are unsurprisingly very similar to the standard fluxgate gradiometry survey (FIG. 13.2). One area did have an enhanced, but not exceptionally high, reading, and that was an east–west feature adjacent to the northernmost enclosure/shrine.

CREMATIONS TO THE EAST AND SOUTH OF THE TOWN

To the south and east there are two further areas where calcined human bone has been brought up by the plough and cremation cemeteries are presumed: in LP 0068 to the south and along the London Road to the east (FIG. 13.8). In both cases, unlike the western cemetery, there is no clear geophysical corollary showing a pattern of intensive pitting. This is probably because these sites are off the gravel plateaus and have topsoils above Bagshot formation fine-medium sand with silt and clay laminae which do not respond as well.

First, close by the Roman road to Winchester to the south, within LP 0068, patches of dark soil and calcined bone were found in the same area as Late Iron Age to Claudio-Neronian pottery (PC:5 and CN:16, Exterior 21, FIG. 6.62) (Corney 1984, 253); in addition a little to the south-west another discrete Claudio-Neronian scatter and cremated bone were also observed (CN:19, Exterior 24, FIG. 6.71). In the latter case there was 'a spread of cremated bone and dark soil, 1 m by 50 cm, surrounded by pottery, including a samian Ritterling 12, 0.15 kg of "Silchester Ware", 0.60 kg of other coarse wares, including two-thirds of the rim of a cordoned bowl' (Corney 1984, 257). The size of the first pottery scatter appears to decrease over time: it covers a smaller area in the Flavian to Hadrianic period (FH:30) just when the western cemetery was flourishing. There are also further clusters of pottery slightly to the west of these in the same field (PC:6, CN:17, FH:31, AE3:49 and LR:68; and CN:18, AE3:48, LR38), though whether these are also from cremation burials is unclear.

Secondly, to the east of the town, on the north side of the London Road within LP 6346, a scatter of Antonine to Late Roman pottery together with tile also produced calcined bone (AE3:60 and LR:80, Exterior 15, FIG. 6.44). This scatter has a small, tight focus bounded by the Roman road to the south and on the north side by an east–west ditch. The geophysics suggest

an area of small pitting here. Boon had wondered if a small structure 70 m to the west was a mausoleum, and the geophysics have suggested there might be several other small structures within this area (Corney 1984, 263, 291; Boon 1974, 186).

In conclusion, there appear to be multiple cremation cemeteries on the roads to the west, south and east. They may occur to the north as well in some of the deeply pitted enclosures, but there has been little fieldwalking in this area, which is now pasture, to provide any corroboratory evidence.

THE LOCATION OF THE FUNERARY PYRES

We have, therefore, three potential cremation cemetery areas covering the early Roman period: a late Augustan to Neronian scatter in the south, a Flavian to Hadrianic cemetery in the west and a potentially enclosed Antonine and later cemetery to the east. This sequential dating is neat, but could be entirely a coincidence brought about by the very small sample sizes of material. What is abundantly clear is that the areas involved in these clusters are still very small given the size of the town. Geophysics do not always show clearly cremation burials and the extent of cremation cemeteries. The burials might be too small to show, or it is also possible that many might have been ploughed out only to remain in the plough-zone; but in that case the visibility of calcined bone over a larger area might have been expected when Corney was fieldwalking.

There is, however, another approach that can be taken to the geophysical data. Rather than looking for the burials, it can be used to look for the pyre sites.

Burial is only one of the later stages in the funerary rite; before that there is the conflagration of the funerary pyre itself. Finding and excavating these pyre sites has usually been a secondary priority to excavating the graves. Pearce called pyre sites the poor relation to graves in cemetery studies given the less critical attention paid to their identification and study in the past (Pearce 1999, 37; 2013, 27). Where they have been recognised, traces can often be very ephemeral: many may have just been set on the ground surface and later dispersed by wind and weather. Where known, there appears to be a mixture of patterning regarding their location: sometimes there are multiple pyre sites mixed amongst the burials (as at St Pancras in Chichester, Hooper Street in the East London cemetery, St Stephen's in St Albans, the northern cemetery at Kempten and the south-western cemetery from Tongeren and Wederath); other times the pyres are in separate areas on the margins of the burial ground or on the other side of a road (as at York Trentholme Drive, Baldock-Royston Road, Seebruck-Bedaium, Mainz-Weisenau, Salzburg and Reichenhall) (Pearce 1999, 50; 2013, 29–31).

In theory a range of activities associated with pyres and commemoration have the potential to leave heat-signatures: the pyres themselves, the spread of pyre debris and its incorporation into other fills, pyre material in the burials themselves, and burnt material related to commemorative activity (for summaries of the variety of material, see Abegg-Wigg 2008; McKinley 2013).

FIG. 13.3 shows the distribution of non-linear features which have a magnetic reading greater than 10 nT, excluding dipoles or 'spikes' which are likely to be metal objects. The results for both the interior and exterior of the town are shown. It is immediately clear that there are more signs for burning or other forms of magnetic enhancement just outside the Town Walls than inside the town, even though inside is where one might expect all the hearths, ovens, hypocausts and other features to keep the populace warm and fed. Outside there are significant clusters of 'hotspots' near the North Gate, the East Gate, to the south, and particularly between the Town Wall and the Outer Earthwork to the west, though carefully avoiding the interior of the Rampier Copse enclosure which appears to be a reserved area.

These 'hotspots' could represent all sorts of thermal activity, such as temporary clamps for firing tiles, kilns, furnaces, or other noxious industrial activities which might need to be removed from high density wooden and thatched housing. They could also represent middens; various bacteria produce magnetically-enhanced excreta, so middens show as elevated readings. Perhaps the most famous example of this kind of smouldering activity in the Roman world is Gehenna, where waste was dumped outside of Jerusalem; fires were always burning there (as well as 'unclean' bodies), hence its name became a metaphor in the New Testament for the final place of punishment of the wicked after the resurrection, often referred to as 'hell'. However, the areas here

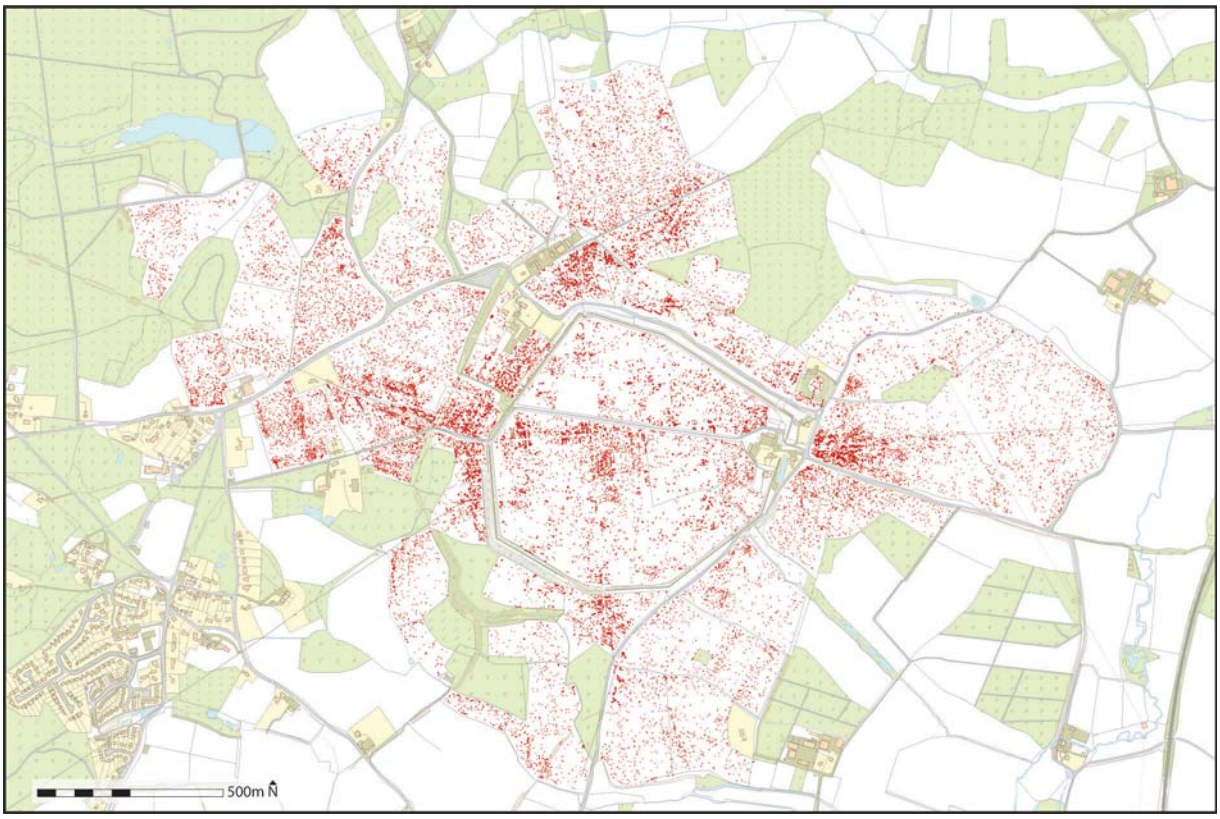

FIG. 13.3. Geomagnetic 'hot points' within and outside the Town Walls: discrete features with signatures >10 nT.

are more discrete than a broad spread of midden material might cover. They could also represent areas where funerary pyres were constructed and individuals burnt. Funerary pyres, of course, need not have been close to where selected cremations were finally interred, if they were interred at all. Elms Farm, Heybridge, is a cautionary tale here, where 19 funerary pyres were discovered, but only two cremation burials found in one area (Niblett 2004, 30). The interpretation of these areas outside the urban core of Silchester cannot be simply pinned down to pyres; but in places the associated distribution of these signals and burials is highly suggestive, such as the signatures around the three western burial enclosures, and the complementary distribution of heat signatures to the north of the road to London and inhumation to the south. Examining magnetic signatures in this way around towns in large-scale surveys offers an additional way to investigate the funerary and industrial landscapes of towns.

In addition to these 'hotspots', there may have been formal cremation platforms for repeated use (*ustrinae*). Those argued to be combustion platforms appear to be very variable in form (Pearce 1999, 40; 2013, 29–31). One possibility for such a structure comes from a nineteenth-century reference to the site. In a garden near the Amphitheatre there was found:

> … a large flat piece of stone fond upon digging. It is [2.24 m] high and [0.61 m] thick, probably weighing nearly a ton [907 kg]. When discovered, Mr Wills states, it was flat, on a setting of brickwork and rubble but the men turned it up on its side, where it now remains. Mr Layard and Mr Petigrew had made an inspection of these remains and conceived they may have constituted portions of some erection of civil or sacred purposes. (Anon. 1860, 92)

The particular location is unknown; however, because it was found in a garden adjoining another garden near the site of the Amphitheatre, it is presumed to have been in one of the houses adjacent to the Town Wall north of the East Gate. The description indicates a massive raised-up horizontal slab which suggests either a large altar or quite possibly a pyre platform.

WELWYN-TYPE BURIALS AND BURIAL ENCLOSURES

EXPECTATIONS

In the Late Iron Age, alongside the development of the Aylesford-style urned cremations, a small number of more richly furnished graves also appeared, nowadays called 'Welwyn-type' burials, often un-urned within a chamber and accompanied by significantly more material culture and generally at least one amphora. The earliest, in the first half of the first century B.C. at Baldock, was contained within a 1.6 m circular pit; it included a Dressel 1 amphora, a cauldron and 'firedogs' (Stead and Rigby 1986, 52–3). However, many later burials took place within timber-lined rectangular chambers, such as a later first-century B.C. example from Welwyn Garden City, with its Dressel 1B amphora and Italian silver (Stead 1967).

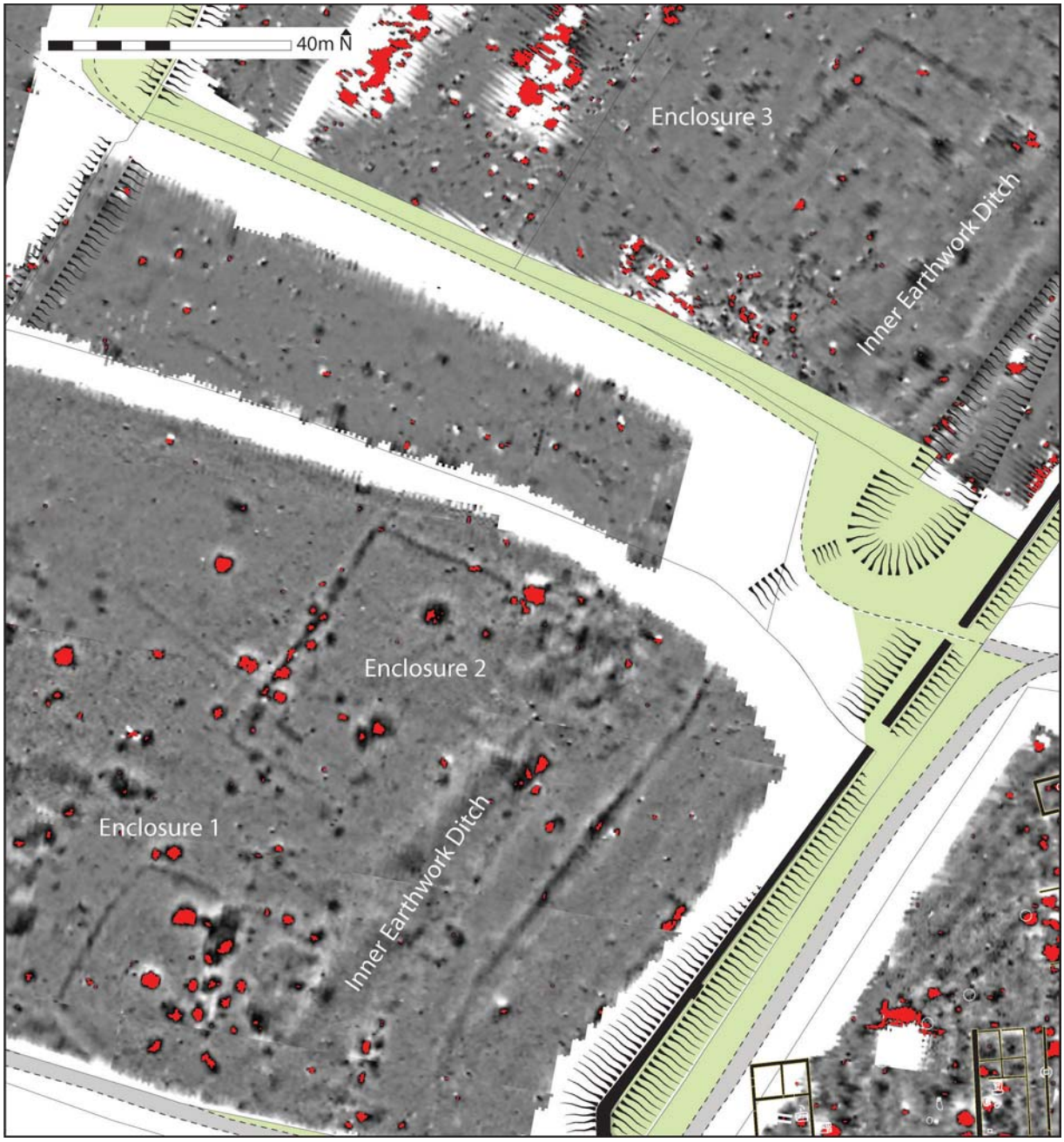

FIG. 13.4. The Western Enclosures (±15 nT with readings over 15 nT in red).

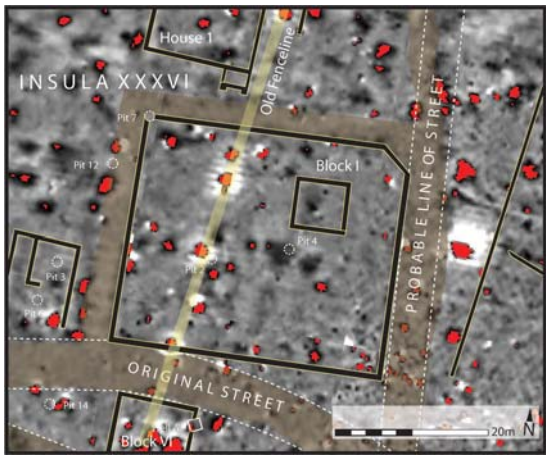

FIG. 13.5. The Insula XXXVI enclosure (±15 nT with readings over 15 nT in red).

Their apogee was reached with a small number of significantly richer burials. At Colchester there were the Lexden (Laver 1927; Foster 1986), Gosbecks and Stanway burial enclosures (Gosbecks as yet unexcavated, Crummy *et al.* 2007), while at *Verulamium* there was the 2 ha Folly Lane enclosure (Niblett 1999). These varied in size and in the details of the rites performed, but a greater destruction of objects can be noted than in the smaller Welwyn-type graves. Some of these sites, particularly Folly Lane and Gosbecks, were monumentalised and became the focus of development and commemoration through the Early Roman period. In an earlier book (Creighton 2006, 123–56) I explored how this might relate to the politics of the

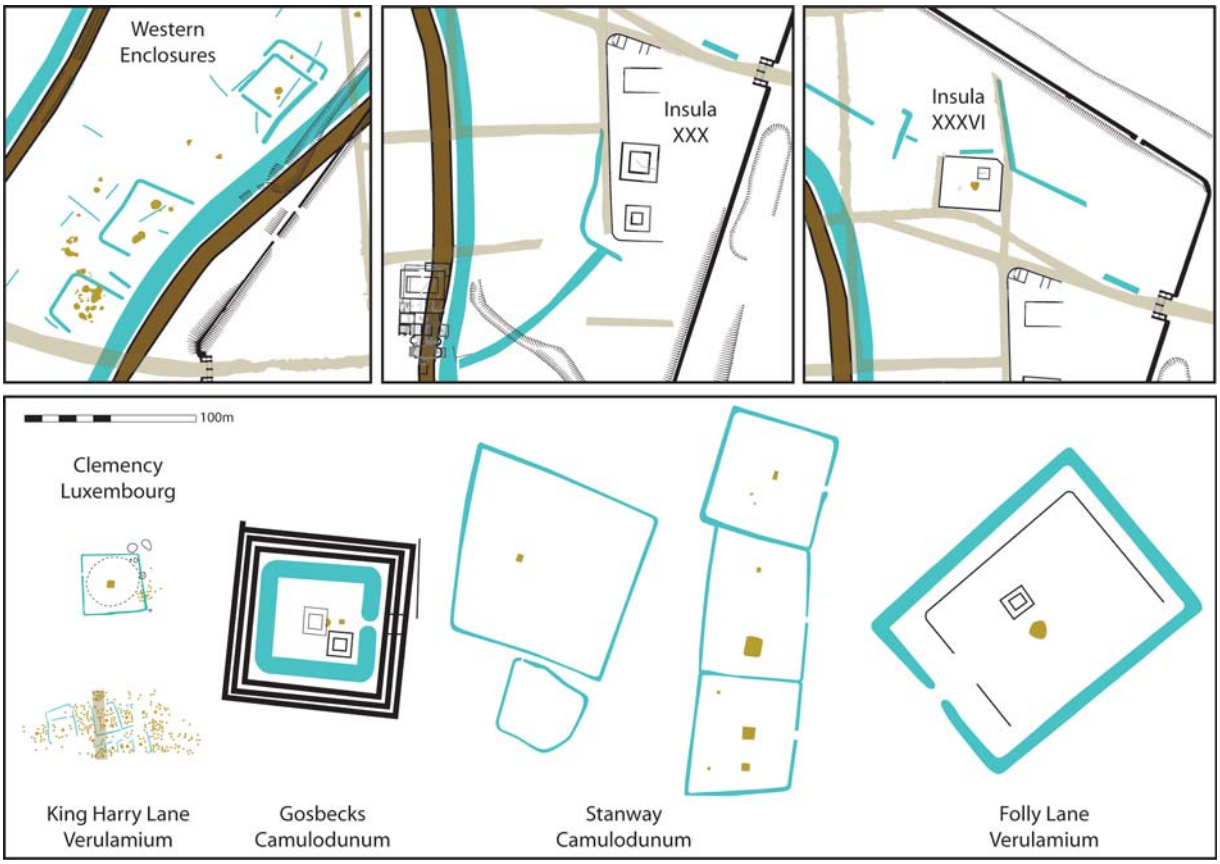

FIG. 13.6. The Silchester enclosures and comparative examples: Clemency (after Metzler *et al.* 1991); Folly Lane (after Niblett and Thompson 2005); King Harry Lane (Stead and Rigby 1989); Gosbecks and Stanway (Crummy *et al.* 2007).

developing province, as cities founded by friendly kings and their retinues became incorporated into the Roman world. *Calleva* is often associated with Commios and his descendants surviving down to Cogidubnus' client kingdom, so where are these individuals and their kin buried and commemorated? I had ventured a guess as to where some might be, but some solid evidence would have been nice and this was one of the questions this project set out to answer (Creighton 2006, 135–42).

THREE ENCLOSURES TO THE NORTH-WEST

To the north-west a series of at least three enclosures was constructed immediately outside and alongside the Inner Earthwork bank and ditch (FIGS 13.4, 13.8).

Enclosure 1 (LP 3950) is slightly trapezoidal, but approximately 36 x 36 m square. There is a series of large anomalies within it focused towards the centre, 4–5 m in size. The surrounding ditch appears to be clear of 'noise' (metallic spikes or secondary pits).

Enclosure 2 (LP 3950) is perhaps the clearest, *c.* 44 x 36 m, containing two central presumed burial pits. Within the boundary ditch, on the north-western side, is a series of smaller pits with strong magnetic signatures. These could be secondary burials, which can be seen at sites like Clemency (Lux.). Here there was a central burial vault under a presumed tumulus keeping the rest of the interior of the enclosure relatively clear; but in front, crossing the enclosure ditch and predominantly on the right, when facing the mound, there was a large number of offering pits, which we may see at Silchester too. Also in front of the Clemency enclosure were pyre sites, and here too there are a couple of strong magnetic anomalies in front of Enclosure 2 which might be pyres, another chamber or something completely unrelated (Metzler *et al.* 1991, 36; Fitzpatrick 2000, 18–20).

Enclosure 3 (LP 6667) is the largest and appears to have been extended, with a secondary ditch added to the north-east. Its south-western side is a little unclear but overall the enclosure appears to be about 56 x 26 m.

A close interval contour analysis of the LiDAR data gave no evidence to support the notion that there were tumuli here; however, the earthworks in the fields have also been ploughed totally flat over the years, so the absence of evidence does not preclude it.

The positioning of the three enclosures in front of the Inner Earthwork suggests they could date to any time from the digging of this feature onwards (*terminus post quem* of the late first century B.C. or early first century A.D.). It looks as if the early layout of the street-grid respects and goes around these features as the insulae were extended out into LP 6667, providing a *terminus ante quem* in, perhaps, the Flavian period (see discussion p. 392). Dating evidence from fieldwalking is marginal. In the field of Enclosure 1 and 2 the majority of scatters were bounded on the west by the Inner Earthwork. Between the two enclosures there was a scatter of Augustan to mid-first-century A.D. pottery (PC:13), while the interiors of the enclosures are actually fairly clear (Corney 1984, 249). There was no fieldwalking in the field of Enclosure 3.

Given that Stanway provides one of the parallels for these, and a set of surgical instruments was found in one of the graves there (Crummy *et al.* 2007, 201–2), it is worth noting as an aside that in a section through the Town Wall ditch by the Antiquaries, the ditch cut an earlier feature (Section 3 just north of the West Gate, see p. 295). When excavated, this earlier feature included within it Claudian to later first-century material and what was interpreted as a bronze surgical implement (St John Hope and Stephenson 1910, 326). Unfortunately the publication does not make clear to which of the various medical-related finds listed by Boon in the collections this refers (Boon 1974, 137). The co-location may be entirely fortuitous; but the presence of Greek doctors in the Augustan court influenced their adoption by the friendly kings of the Empire. For example, Juba II of Mauretania employed Euphorbus, the brother of Augustus' doctor Musa (Pliny, *NH* 25.38).

THE INSULA XXX MULTIPLE TEMPLE *TEMENOS*

At *Verulamium*, Folly Lane was the main burial that was monumentalised. It had a Romano-Celtic temple added on one side, and the site remained in use as a place of commemorative

action into the third century. This enclosure was situated outside the town, overlooking it in a visually obvious location. Silchester lies in a very different topographic position, being on the top of a gravel spur, rather than in a valley bottom. The points with the highest visibility are the edges of the terrace as the town is approached from the north, east and south and this is where the Amphitheatre and the two Insula XXX Romano-Celtic temples were located (FIGS 5.35–7).

The temples, like Folly Lane, are situated in a position inextricably bound up with the location of the Forum. At *Verulamium* the burial enclosure and the forum and theatre all visually inter-relate; at Silchester too, the Forum exit leads along the seriously off-grid-alignment street towards the *temenos* enclosure. While these temples now appear within the Town Walls, up until the Claudian period they would have been outside the early Inner Earthwork enclosure, and across a spring and small stream, just as at *Verulamium* it was necessary to cross the River Ver to pass from the town to Folly Lane. Similarly a second route at *Verulamium* passed the Branch Road baths, and at Silchester the Public Baths are situated in a comparable position.

We do not know when the Temples were founded, but the *temenos* in which they were situated had significant visual prominence, as did Folly Lane within *Verulamium*. At some point it was enclosed with a brick wall, but there may have been an earlier ditched enclosure, though not aligned to the Flavian street-grid. Traces of a ditch or linear feature can be seen immediately to the south-west of the walled area in the geophysics. Also, to the north, Fulford excavated a very significant ditch running west-north-west to east-south-east parallel to the northern side of the *temenos* wall (Fulford 1984, 37). It went down to 4.2 m below modern ground level. The feature did not make sense as a roadside ditch since it was far too deep and early (alas the road itself did not survive, the stratigraphy having been truncated with only this deeper-cut feature remaining visible). Fulford rejected the idea that it was an early *temenos* boundary as it was approximately on the northern side of the path of the later Roman road, and instead interpreted the feature as a major defensive ditch. The only problem with the latter interpretation is that it cannot be seen continuing anywhere in the geophysics if projected west, or indeed east beyond the Town Wall; other major ditches show, such as the Inner Earthwork, despite being overlain by four centuries of Roman stratigraphy, so this is a genuine absence. The simplest explanation is that it is indeed an early *temenos* enclosure ditch, and that in due course it was replaced in stone, with the stone wall being set in from the ditch.

Fulford dated the ditch to the second half of the first century A.D., with the primary silts dating to around the A.D. 70s and the ditch continuing to gradually fill up until reinforced with a palisade on the southern side around A.D. 100 (F42), and then perhaps later by the undated *temenos* wall *c.* 7 m to the south (F21) (Fulford 1984, 37–41). The gap between the northern *temenos* later wall and the early ditch is about the same as in the south-east corner between the known *temenos* wall there and the geophysical anomaly suggestive of a ditch, and the road eventually constructed over the filled-in ditch.

The two temples within the enclosure include the largest known in Britain so far at 22.3 m square, with the southern one 15.3 m square. Boon wondered if the modern later Church of St Mary's was not built on top of a third as it had a similar alignment. There is little dating evidence, though Boon noted they were on the Public Baths alignment suggesting they were early (Boon 1974, 155–6).

There is no proof that this is a burial enclosure; if there was a chamber, then it is likely it would have been under the manor house, so inaccessible to investigation now. However, by analogy with *Verulamium*, it is perfectly possible. The Folly Lane enclosure was Later Iron Age, but the burial dated to the early years of conquest. Here at Silchester, we have earlier signs of activity at the temple area (see p. 341), but the enclosure itself is early post-conquest up to the A.D. 70s, perhaps dating to the end of Cogidubnus' kingdom.

INSULA XXXVI WALLED ENCLOSURE

Another walled enclosure exists in this part of town within Insula XXXVI, outside the original Inner Earthwork *oppidum*. Off-set within the 29 x 35 m precinct was Block XXXVI.I, a single cell building about 5.8 m square, adorned with wall-plaster, though only the foundations remained.

The Antiquaries and Boon considered it to be a shrine of some sort (St John Hope 1909a, 479–80; Boon 1974, 152–3).

Within the enclosure the geophysics show a 3 x 4 m feature in the centre (many of the other features are metallic di-poles and lie along an old fence-line). The positioning is suggestive of a possible burial chamber, and its size is not dissimilar to those at Stanway, Lexden and Gosbecks (Crummy *et al.* 2007, 448).

During the Antiquaries' excavations they partly cut into this feature, calling it 'Pit 4'. Uncommonly in this case they provided a description of the pit. They said it was cut 2.1 m deep into the gravel and was 2.7 m in diameter. In it they found: 'a few fragments of broken pottery, mostly black and grey, and a few bones; a small brass of Carausius on the bottom; two coins of the Constantine family, and five other illegible between [1.4 m] down, and a large brass of Hadrian at [0.9 m]; five bone pins and fragments of others; and one square green glass object, perhaps from a brooch' (St John Hope 1909c, 479). The mixture in dates of the material described is remarkable, suggesting considerable disturbance. Although no human remains were identified in the report among the bones which were found, discoveries of calcined human bone were not mentioned in any of the other reports with the sole exception of the intact cremation discovered in Insula XIX. Some GPR on the site might productively be undertaken to see if the remains of a larger chamber are visible as at Gosbecks (Crummy *et al.* 2007, 449).

Whether this enclosure was actually a burial location or not, it is curious that both the enclosure here in Insula XXXVI and that in XXX were built in stone with the construction of shrines or temples, and that the main road into town was constructed to pass between the two of them, forcing people to swerve on their arrival or departure and ensuring that they achieved visual prominence. These two enclosures were remembered and monumentalised in a way the three, presumably earlier, enclosures to the west were not.

OTHER POTENTIAL ENCLOSURES

If we examine other areas just outside the Inner Earthwork but inside the later Town Walls, there are a number of linears to the north-east, and some possible features perpendicular to these. Alas the detail of these is unclear, masked by four centuries of later occupation. That there was pre-conquest material culture in this area, even outside the Inner Earthwork was revealed by Cotton's sections into the later Town Wall. Early material was found in her Sites A, B, C and E, but structures were found only in A (a sealed pit) and E (three post-holes). There must be some activity resulting in all this material culture being found outside the Inner Earthwork.

THE INHUMATIONS

INHUMATION CEMETERY ON THE LONDON ROAD

In the later Roman period we find extensive 'managed' cemeteries being developed outside many town walls (Thomas 1981, 232; Philpott 1991, 226). The main examples in southern England are Lankhills outside Winchester (Clarke 1979; Booth 2010), Poundbury outside Dorchester (Dorset) (Farwell and Molleson 1993), Butt Road outside Colchester (Crummy *et al.* 1993), the Eastern Cemetery outside Roman London (Barber and Bowsher 2000), and Bath Gate outside Cirencester (McWhirr *et al.* 1982). It looks as if there is a similar style of cemetery on the eastern side of Silchester.

Crossing LP 4426, 6530 and 6346 is an extensive distribution of pit-like features detected in the geophysics which have the scale and rhythm to them of a managed cemetery (Exterior 18). Its position is set a little to the south of the London road, which would make sense if the land right by the road was already in use for other purposes before the cemetery was instituted. The patterning has clearly defined edges, though no obvious boundary ditch, and there appears to be a gap or possible trackway between two areas of it.

At Lankhills about 20 per cent of inhumations included ceramics, though this is a much higher proportion than at other cemeteries such as Poundbury. Curiously Corney identified ceramic

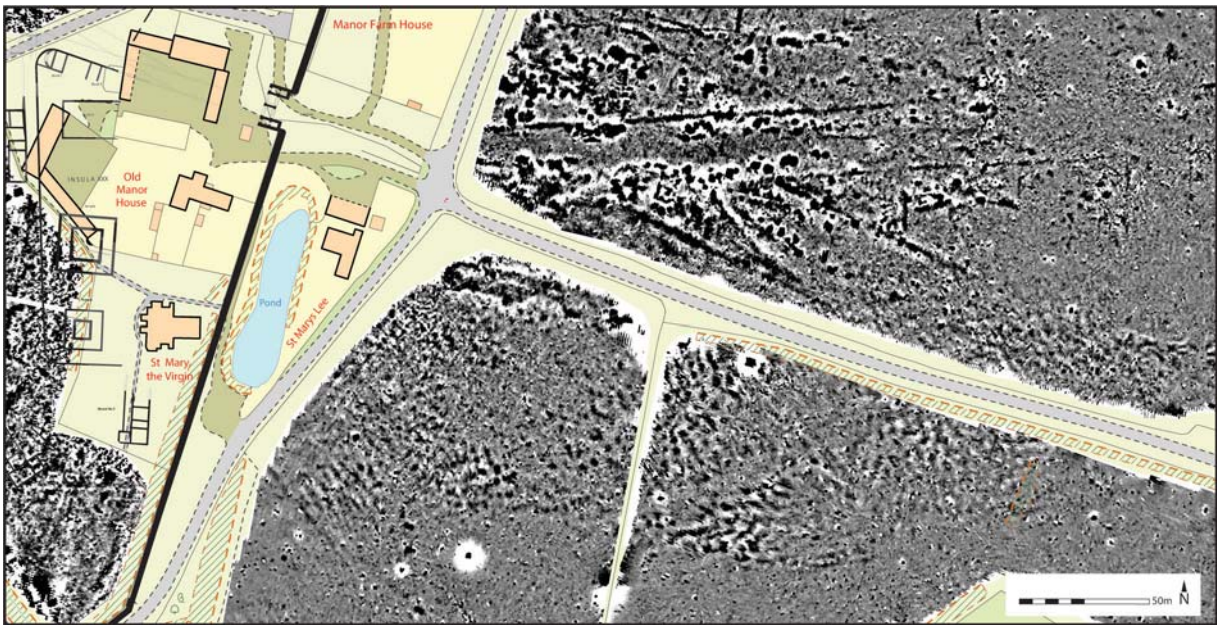

FIG. 13.7. The eastern inhumation cemetery.

scatters at the top of the hill, but not further down the slope. The largest scatter was later Roman (LR:84), though there was material from the Flavian period onwards (FH:44, AE3:62). So why does no material appear further down the hill? Possibly this relates to plough depth and hillwash: the burials at the top of the hill might have become shallower as colluviation washed soil down the hill and ploughing cut into the features; or it could be that the upper areas are dominated by shallower urned cremations, though no calcined bone was recorded in the fieldwalking reports. Both suggestions are entirely speculative. It is worth noting that Fulford cut one of his rapid trenches across one of the hypothesised lines of the Outer Defences and this should have picked up several of these features but did not (Trench 6: Fulford 1984, 26, 82). However, since some of these rapidly dug and backfilled trenches could not find the major ditches which were their primary objective and which can be seen clearly in the geophysics, the apparent absence of these features in excavation should perhaps not concern us.

The southern boundary of the hypothesised cemetery respects a projected line of a road or trackway within the town south of Insula XXX and the modern churchyard. If so, this suggests planned spatial layout to the west before the Town Rampart separated the area from the town around A.D. 180–200.

OTHER POTENTIAL AREAS OF INHUMATION

The interpretation of the geophysical response in the hypothesised eastern cemetery has not been confirmed by ground-truthing, but some similar 'elongated rhythmic pitting' can be seen in a number of other areas around the town.

To the south, close to the cremation cemetery in LP 0069, there are several areas just to the north in LP 1100 which might represent inhumations (Exteriors 21–22). There was no spread of pottery associated with this feature. The smaller the cluster the less certain the interpretation of the geophysics must be; however, the cluster within Exterior 22 appears to be associated with a large rectangular enclosure. It is also an area where a small copse has been allowed to stand in the middle of the field since the first edition OS maps. Occasionally the reason for this can be that the plough has been hitting stone or other obstructions so the area has been left to grow trees and provide cover for game; so there could be a structure here. This area is just inside the South-Eastern Enclosure bank.

There are two more patches just north of the town on either side of the Clad Gully Outer

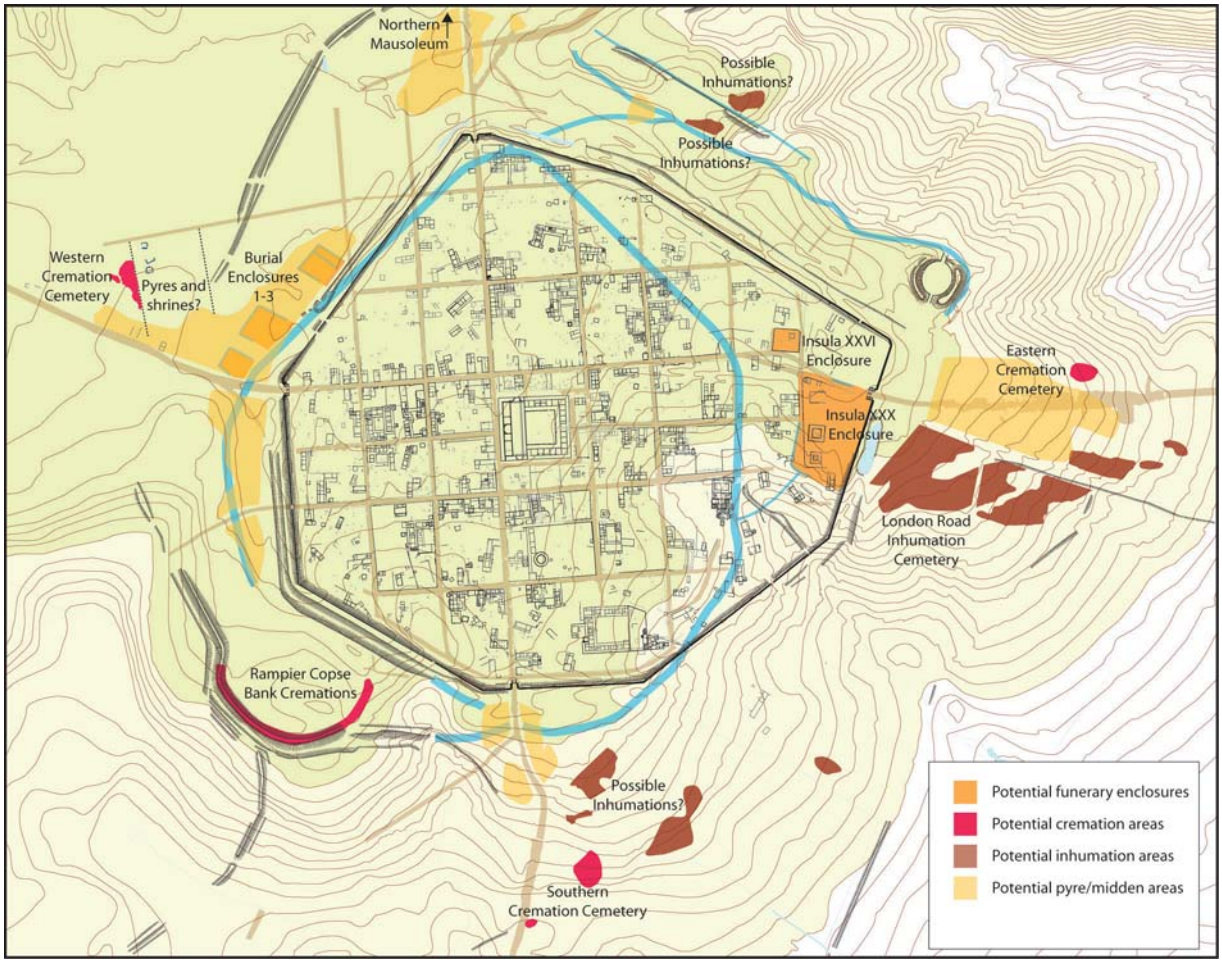

FIG. 13.8. The funerary landscape around Silchester.

Earthwork in LP 2088 and 0085. Both are small areas close to what were probably disused earthworks by the later Roman period.

There is no secondary evidence to support either of these interpretations.

MAUSOLEUM AND UNVERIFIED CEMETERY AREA TO THE NORTH

To the north of the town OS maps for a long time noted 'Roman Burials'. Curiously, despite this apparent certainty, this is the area we know least about. The only secure find comes from just outside the northern entrance through the Outer Earthwork. Here, just to the west of where the Roman road passes (though east of where it is inaccurately shown on OS maps), a Bath stone sarcophagus was discovered in 1852 in LP 8024 (Exterior 5, FIG. 6.14). The tomb was found within a 6 m diameter circular mausoleum, and the only recorded find within was an early third-century ceramic sprinkler-bottle (Boon 1974, 186). There are no primary published records relating to this find, though it appears on the earliest OS map, and Hodge made sure he extended his Great Plan of 1885 north to include it (Hilton Price 1887, pl. 15). Unfortunately modern disturbance meant it was not possible to see this in the results of the fluxgate gradiometry, but it appears to lie on a break in slope in the road leading up to the town, so would have marked the visual summit walking up from the north. This is also where the main roadside ditches appear in the fluxgate gradiometry survey. There is a small D-shaped enclosure on the other side of the road from the mausoleum which might have a comparable structure in it, both providing a welcome to visitors to the town.

Perhaps surprisingly the geophysical survey has not revealed additional mausolea or funerary

buildings along the roads out of the town, but then the response of buildings on the gravel is not especially good, as can be seen from the results in the interior.

To the south of this 1852 mausoleum, between the Outer Earthwork and the Town Wall, the OS designated an area of 'Roman Interments', labelling it thus on the advice of Mill Stephenson on the reprinting of their 1872 1:2500 edition maps (Boon 1957, 229). In the same way that we have no specific primary reference for the stone sarcophagus, there is no indication to say why Stephenson advised the OS to do this. By the 1969 edition the language was changed and this became 'Roman Burial Ground' for these mystery interments, perpetuating this unverified assertion, while the *actual* mausoleum for which we have solid evidence disappeared off the map.

It would not be surprising if there are more burials in this area, but no further evidence has come from the many development-led interventions around the modern farm and housing, or from the water main trench. Sieving during the excavation at Rye Cottage did not reveal any human skeletal remains (Fulford *et al.* 1997, 154). The only place human bone has been found is around the North Gate, as discussed above.

There is, nonetheless, extensive pitting and activity in this area on the geophysics, with a number of roads and lanes, but nothing with a signature like the possible inhumation cemetery to the east. There are enclosures running off the lane heading to the north-east, but again, these look more like paddocks on either side of the road than funerary enclosures.

DISCUSSION

Esmonde Cleary's survey of the extramural areas of Romano-British towns observed, as expected, that there was a preference for cemetery locations to be along the major routes from town, especially towards London (Esmonde Cleary 1987, 168). This reflects the development of monumentalised *gräberstrassen*, mirroring in a provincial way the grandeur of the roads leading to Rome, Pompeii and Ostia. At Silchester, with qualification, that certainly seems to be the case. Apart from the cremations cut into the Rampier Copse earthwork, and a few small clusters of possible inhumations, all the major cemeteries are on the major roads out to the north, south, east and west. As of yet, nothing has been noticed along the line of the road to Old Sarum, a notable absence, nor along the hypothesised road towards *Verulamium*.

The early evidence appears to be on the roads to the west and south (not east towards London). This is where the early burial enclosures can be seen, and the cremated bone was ploughed up with Claudio-Neronian pottery.

It may be that the inhumation cemetery to the east, south of the London road, masks a cremation cemetery and it had mixed use, but there is no early pottery scatter to suggest it.

TABLE 13.5. POTENTIAL SILCHESTER BURIAL AREAS AND ENCLOSURES (SOME SIZES ARE VERY APPROXIMATE)

Burial enclosures 1–3	Probably early to mid-first century A.D.	4,450 m^2
Insula XXX enclosure (burial?)	Probably A.D. 60s–70s	8,000–11,000 m^2
Southern cremation cemetery (LP 0068)	Claudio-Neronian, declining Flavian-Hadrianic	1,750 m^2
Insula XXVI enclosure (burial?)	No indication	1,100 m^2
Rampier Copse cremations in the bank	Late first to early second century A.D.	along 300 m
Western cremation cemetery (LP 4173)	A.D. 80–130	1,300 m^2
Eastern cremation cemetery (LP 6346)	Antonine onwards pottery	500 m^2
Northern mausoleum (LP 8024)	Early third century, *c.* 7 m diameter	38 m^2
London road inhumation cemetery	Flavian onwards, but mainly later Roman	*c.* 33,000 m^2
Inhumations? LP 1100	?	*c.* 5,400 m^2
Inhumations? LP 2088 and 0085	?	970 and 530 m^2

However, the road to London does take centre stage when it comes to the two possible burial enclosures (Insulae XXX and XXXVI). The former, with its two Romano-Celtic Temples, would have been the landmark people travelled towards from the east. But both enclosures had to be passed to enter the town from London. If these are burial enclosures on analogy with Folly Lane and Gosbecks, then whoever they represented, the structures got monumentalised into the new fabric of the town – stone – in a way the burial enclosures to the west did not.

The smaller three enclosures to the west were at first respected as the town developed. As the street system developed insulae were extended around them, unusually incorporating them within the street-grid. But then in A.D. 180–200, with the construction of the new Town Bank and Ditch, they were clearly excluded by the line chosen for the new boundary of the town, while the same process chose to include the two stone enclosures in the east. It was to be the Insula XXX temple enclosure that dominated the major later Roman inhumation cemetery on the slope beneath. By the time this was established the new road to the west had been constructed sweeping through and across the area of the old Flavian cremation cemetery, consigning memory to the plough zone.

This survey has revealed for the first time several Later Iron Age or Early Roman burial enclosures and several potential cremation and inhumation areas, and allowed hypotheses concerning possible pyre zones on the edge of the town. However, the areas of burial still look small when compared to other Romano-British towns such as Colchester (Radford *et al.* 2013, fig. 7.22).

Certain speculations require ground-truthing, but from the knowledge-base of Boon's two pages we have moved to a stage where there is a reasonably comprehensive outline of what might surround the town. The Silchester landscape offers a brilliant potential sampling ground to test a Romano-British population, examining chronological trends and engaging all the modern techniques of burial analysis, including isotopic and DNA work. This chapter helps set the groundwork for the ground-truthing and analysis that must lie sometime in the future.

CHAPTER 14

URBAN INFRASTRUCTURE

This chapter examines the development of the infrastructure of the Roman town, taking the story on from the foundation of the Iron Age *oppidum* to the full development of the street-grid (the beginnings of which were touched on in Chapter 11, pp. 344–9) and the roads which connected this town to those beyond. It also discusses other aspects of infrastructure such as the supply of water, combining a mapping of the wells from the excavations with the road drains from the geophysical survey and the topography from the LiDAR to see how both water provision and wastewater management were handled.

THE DEVELOPMENT OF THE 'ROMAN' STREET-GRID

HISTORIOGRAPHY

Ever since Stair's early plan the basic outline of the Roman street-grid has been clear: Silchester had a traditional Roman grid. There was, however, one area of concern: the main east–west road was a puzzle as it came in from the West Gate, passed to the north of the Forum, but then appeared to run directly towards a solid stretch of the Town Wall to the east. Maclauchlan (1851, 230) was exercised by this and eighteenth-century cartographers made plans with streets askew to try to rectify this anomaly. Joyce contributed to the debate by first discovering the Amphitheatre Gate, not too far from where the main east–west road might have intersected with the Town Wall; then a few years later he finally discovered the main East Gate or *Porta Orientalis Londinensis* (Joyce 1881b, 345–6), though not quite where everyone was expecting it. However, it awaited the Antiquaries' later seasons to finally flesh out the outline of the road network in this area, where straight Roman roads curved and went off at angles.

During the twentieth century, Cotton discovered that the streets ran under the Town Bank and Wall, and were thus earlier. Pursuing this line of enquiry she set out to investigate whether the roads originally continued further by examining Rye Meadow (LP 6667, Exteriors 9 and 13, FIGS 6.26 and 6.38). Confirmation came from digging successive trenches following the course of an east–west street to a crossroads where a new street, slightly off-grid, continued right out to the Outer Earthwork (Sandy's Lands). Boon, inspired by this, went further to imagine the grid might have extended out to the north-east and south-west as well (Boon 1974, foldout plan); but no subsequent work has provided any supporting evidence for this to the north-east, though one of the insulae does seem to have originally projected out to the south-west, just touching the edge of the Rampier Copse enclosure (see Exterior 21, FIGS 6.62–64).

Having established the extent of the grid, the question then became 'when was it established and how?' Most of the discussions implicitly imagined the grid was predominantly laid out at one date as one action. Haverfield, seeing a unified town plan, hazarded its origin might have been under Agricola (Haverfield 1894). Cotton also envisaged it as being 'obviously the work of a surveyor who planned it as a whole' (Cotton 1947, 135), so she sought to find a single date from the evidence. She concurred with Haverfield that the influence of Agricola or his immediate successors and their intensive Romanisation agenda must have been at play, and material culture suggested it was all laid out in A.D. 90–120 (Cotton 1947, 137). This was taken up in the broader literature. Liversidge similarly associated this major endeavour with historic events or personages, thus: 'after Hadrian's visit in AD 122, if not earlier, Silchester, like so many

other towns, seems to have taken stock of its situation and a proper town-plan was devised with insulae bounded by a grid of new streets' (Liversidge 1968, 35). For Boon the Hadrianic date was too late for his concept of *Calleva*. He imagined the core of the grid as being essentially Flavian and post-Cogidubnian, signifying the incorporation of the town as a formal *civitas* into the Roman province; Cotton's outlying later streets to him represented a later extension. He used his Trenches H and K south of the town to justify his earlier dating (Boon 1969, 9, 12, 39; 1974, 53, 91).

Fulford has aired a wide variety of historical explanations over his years studying the town. Originally he accepted the very late Flavian date for the street-grid (Fulford 1984, 81; 1993, 17). Later, when the Insula IX excavations were suggesting that the main north–south road was probably earlier, he considered the new grid might have its origin in a Neronian re-planning associated with the investment seen in the brickworks and tilery, as evidenced by the Neronian stamped tiles, and a possible palace (Fulford 2003, 102). Later still, while he was talking-up some burnt deposits in Insula IX, considering they might be related to a Boudican destruction of the town, he thought the destruction could have required the whole town to have been entirely re-planned (Fulford and Clarke 2009b). Nonetheless, in addition to the speculation on the causation behind the development of the grid, he has also provided additional firm evidence from his excavations of the Iron Age lanes and Roman streets from the Basilica and Insula IX sites, as well as at the North Gate, as we shall see.

METROLOGY

The notion of a layout-event, even if restricted to just an inner core of the later network, incorporates the connotation of there having been a master plan behind the grid. Hence, a series of articles throughout the twentieth century explored what this might have been and how it had been measured, since it is obviously a less-than-perfect uniform grid. Haverfield, in his overall survey of Roman town-planning, perceived that many town insulae were the size of one *iugerum* (120 x 240 Roman feet). At Silchester he imagined the original core block bounded by Insulae X, XXXI, XXXV and XIX to have been laid out in one go, based on three differently sized insulae, 384 x 390 ft (117 x 119 m), 384 x 267 ft (117 x 81 m), and 267 x 240 ft (81 x 73 m). However only in the last of these did the distance of 240 Roman feet appear and that without a conversion from Roman to Imperial measurements. Silchester was indeed a very imperfect example (Haverfield 1913, 79, 129).

Boon conducted his own analysis, concluding most of the insulae were based on rectangles either 119.5 x 119.5 m or 119.5 m x 79.7 m, the common multiple being 39.83 m, which Boon took to represent 120 x 0.3319 m, or 120 *pedes Drusiani* rather than the more commonly used *pes monetalis* (Boon 1974, 92–7) — the former being one-eighth longer than the latter according to Hyginus (*Corpus Agrimensorum Romanorum* V). An important part of Boon's discussion, however, was underscoring how unreliable much of the data was in this exercise: from the inaccuracies in the Antiquaries' excavation drawings and the Great Plan itself, down to the problems of knowing how long a *pes monetalis* or *pes Drusianus* was in the first place. This potential inaccuracy in all of the survey plans needed to be pointed out to explain away wide margins of error between his conception and the actual distances on the ground. Nonetheless, problems with the core data did not stop Philip Crummy entering the debate with his own conjectures focusing on British towns, though reverting to using the *pes monetalis*. He noted the recurring use of the three dimensions of 250, 275 and 400 *p.M.* (*c.* 74.0, 81.4 and 118.4 m) which he considered 'wholly convincing' that *pedes monetales* were the units used (Crummy 1982, 130). He returned to the theme twice more (Crummy 1985; 1993), partly due to the debate that had ensued about whether the *pes Drusianus* or *monetalis* was the appropriate measure to use. Walthew preferred the *pes monetalis* in the creation of property boundaries at Silchester (Walthew 1978, 339–41; see also Walthew 1981; 1987). Others also entered the fray with their own particular spin on the topic (Duncan-Jones 1980, 129; Millett 1982; Bridger 1984; Ford 1994). Ultimately precision in the plans was lacking. Furthermore uncertainty about the unit of original measurement makes any absolute conclusions difficult, although Crummy's conceptual illustration showing the broad division of the town into proportional blocks based on Boon's plan does demonstrate a clear sense of order (Crummy 1993,

fig. 6), even if his other plan with individual measurements shows a profound sense of imprecision in the original surveying (Crummy 1982, fig. 5). But had there been a single overall plan at all?

THE EVIDENCE FOR THE EVOLUTION OF THE GRID

The evidence that the grid was not a one-off re-orientation of the town arrived with Boon's dating of his excavated roads in the centre proving to be earlier than Cotton's dating (see above). Since then Fulford's work has provided more detailed evidence. The excavations at the Basilica revealed buildings on the 'Roman' axial alignment from Period 4, with its Tiberio-Claudian *terminus post quem* significantly earlier than Boon's Flavian origin myth, and this seems to be confirmed by the recent work in Insula IX which has shown that the main north–south street of the town was probably Claudian and much earlier than the east–west street (see pp. 344–9, FIGS 5.18 and 11.2) (Fulford and Clarke 2011b, 19). This means that some elements of the street-grid were much earlier than others. There might have been a one-off early core, but there might also have just been the north–south road on its own, which development then took off from, with the early core grid followed by later peripheral developments. Gradual expansion is how other towns are also now seen, for example, the evolving grid at Wroxeter (White *et al.* 2013, 173–9). The dating evidence for Silchester is listed below (in the order of discovery), and summarised on FIG. 14.1:

(1) **An east–west road cutting the Public Baths** – the road on the north side of Insula

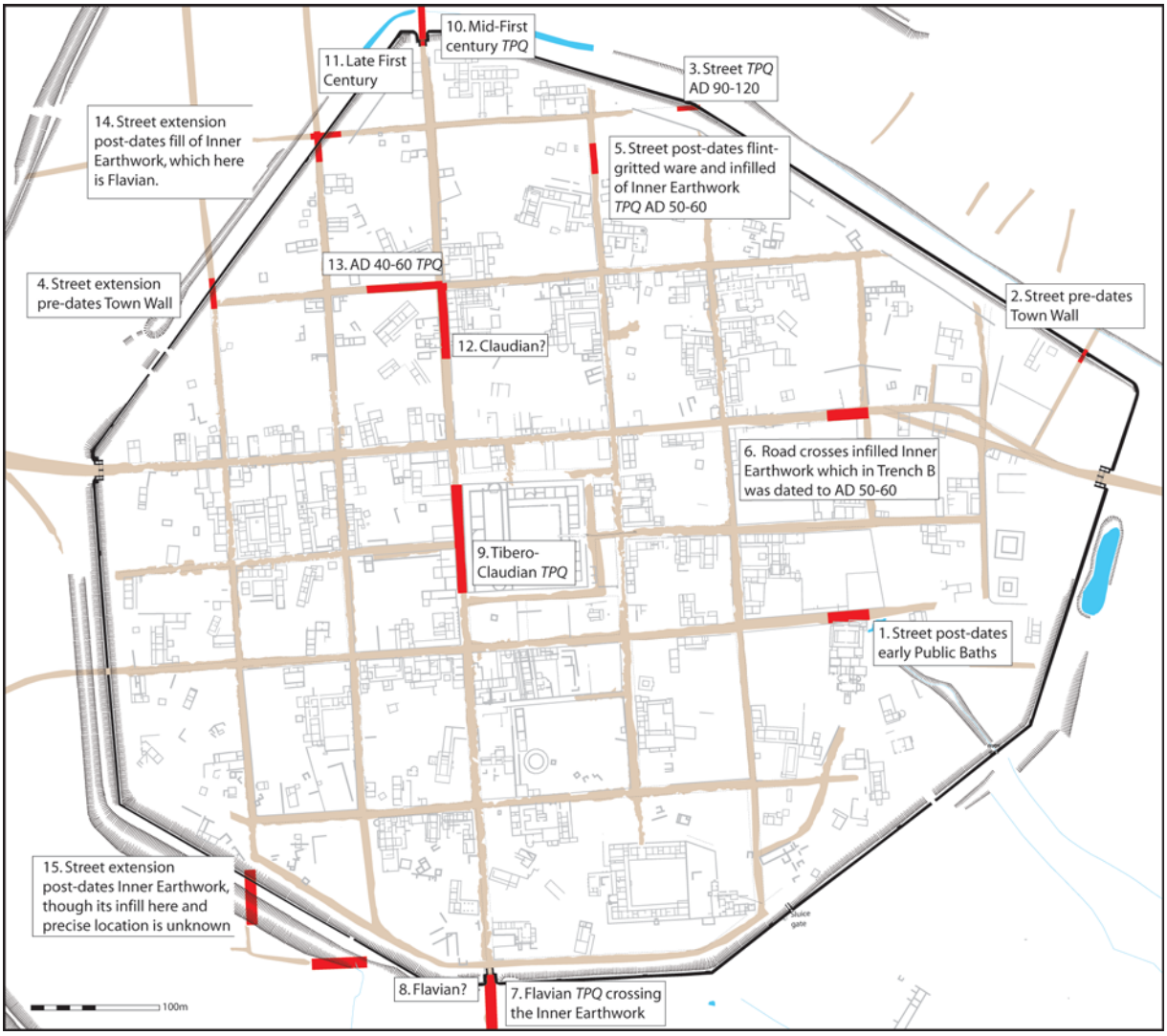

FIG. 14.1. Dating evidence for the Roman street-grid.

XXXIII required the demolition of the portico of the Public Baths, so must post-date it. It is imagined to be Neronian but secure dating evidence is absent (FIG. 5.44; St John Hope and Fox 1905a, 346).

(2) **The road through the Amphitheatre Gate** – Cotton observed that there was a road pre-dating the Town Rampart and Wall (pre-A.D. 180–200), but no dating evidence was obtained. If heading to the Amphitheatre it should logically post-date its construction in *c.* A.D. 55–77 (FIG. 5.24; Cotton 1947, 131, Site F).

(3) **An east–west road near the North Wall** – Cotton's Site C excavated the point where an east–west road intersected the Town Wall. It found that the street went under the Town Rampart, but also sealed 'Clay Floor II of Hut Ci' which contained a coin of Domitian (A.D. 81–96). She gave this road a broad *terminus post quem* of A.D. 90–120, and a *terminus ante quem* of A.D. 180–200 (FIG. 5.9; Cotton 1947, 137, Site C).

(4) **The roads to the north-west in LP 6667 and 6472** – Cotton investigated these in a number of trenches, identifying them to be 4.88–5.03 m wide with a good camber, but more thinly metalled than the streets inside the Town Walls. There was little trace of side ditches, which the geophysics corroborate. Unfortunately no dating material was found, largely because there was little occupation material beside the road to get incorporated into the features (Cotton 1947, 135). Fulford was sceptical about Cotton's discoveries: 'In the narrow trenches she employed, the identification of a gravel street intersection in the context of a gravel subsoil may have been mistaken. Certainly recent area excavation around Rye House has produced no further evidence in support' (Fulford 1993, 29); however, since a projection of Cotton's road did not even pass through the area excavated at Rye House, Fulford's evidence for rejection can be dismissed (FIG. 6.26). Projecting the east–west road out further, beyond the Outer Earthwork, a potential roadside ditch was revealed in the fluxgate gradiometry suggesting there is no need to doubt there was once an extension to the grid, creating a very large block around the newly discovered Later Iron Age or Early Roman burial enclosures (FIG. 6.40).

(5) **A secondary north–south road** – Boon's Trench B cut across the Inner Earthwork and street; under the metalling he reported finding some scraps of flint-gritted ware, but 'the underlying 12–18 inches of clean bank-gravel was devoid of finds, as was the surface below' (FIG. 5.9; Boon 1969, 9).

(6) **The main east–west road** – when Boon's 'Trench K' explored the relationship between the east–west road and the Inner Earthwork, he wondered if there had been an earlier entranceway there; there was not and the road carried straight over the ditch. When he cut down through the main east–west road (FIG. 5.19), Boon identified multiple layers of metalling, of which 'the lowest two [were] well-separated from the others by dirty gravel and earth' (Boon 1969, 10, pl. Vc). The infill of the north-east section of the Inner Earthwork dates to *c.* A.D. 50–60, so the grid extension east is likely to post-date that.

(7) **The main north–south road, crossing the southern Inner Earthwork** – Boon's Trench H explored the road to Winchester crossing the Inner Earthwork south of the South Gate (FIG. 6.62). Here the street went over both the Inner Earthwork and also a black occupation layer containing a Dr. 36 Flavian cup. He concluded: 'the occupation therefore again offers a Flavian terminus post quem for the construction of the street' (Boon 1969, 12).

(8) **The main north–south road** – as the road exited through the South Gate it appeared to be Flavian. Metalling sealed six pre-Flavian gullies on the east side of the road. The metalling, with a drain in the middle, sealed assemblages of butt beaker, Silchester ware and Roman brick or tile; the latter was not hitherto known until Neronian contexts (FIG. 5.50; Fulford 1984, 37), though some was later found in pre-conquest Period 1–3 contexts in the Basilica excavation (Fulford and Timby 2000, 121).

(9) **The main north–south road near the Basilica** – while the Basilica excavation did not excavate any part of the Roman street-grid, the Period 4 building on its new alignment only makes sense if the north–south road had been constructed at a similar time, which would suggest a date with a Tiberio-Claudian *terminus post quem* (FIG. 5.31).

(10) **The main north–south road** – beyond the North Gate the road was sampled by the water main trench. Here the assemblage recovered indicated a mid-first-century *terminus post quem* (Fulford *et al.* 1997, 158).

(11) **The main north–south road** – as it exited through the North Gate, a late first-century metalling is suggested. The earliest street surface (115) dated to the late first century and was flanked by roadside gullies (F42/F51) which dated to the late first or early second century (FIG. 5.6; Fulford *et al.* 1997, 91–2).

(12) **The main north–south road** – within Insula IX interim statements state that in 2010 excavation at the junction of the east–west and north–south roads showed the former overlay Claudio-Neronian burnt material, though the north–south street lay directly on natural gravel. This correlated with other evidence that suggested possible early buildings were aligned on the north–south street (Interim Report, so subject to change) (FIG. 5.18; Fulford *et al.* 2011, 6).

(13) **A secondary east–west road** – the road on the northern side of Insula IX is reported to seal material dating to A.D. 40–60 (Interim Report, so subject to change) (FIG. 5.18; Clarke *et al.* 2005, 3).

(14) **Grid extension crossing Inner Earthwork** – an observation from this survey is that the grid to the north-west crosses the Inner Earthwork, which here had Claudio-Flavian primary fills and late Flavian/Trajanic settlement into the top (FIG. 6.40; see p. 308).

(15) **Grid extension crossing Inner Earthwork** – the corner of the roads crossing the Inner Earthwork (wherever it precisely is) which then adjoins the Rampier Copse enclosure. Undated (FIG. 6.64).

Collectively the evidence could lead one to imagine a broadly three-phase development:

First, an early core was laid out, with the north–south road and the two or three east–west roads from north and south of the Forum area, perhaps just covering Insulae XIV, XVI, II, III, IV, V and VI to start with. This includes the area of Fulford's hypothetical palatial building (see p. 435).

Secondly, the first additional rows of insulae to the north and south may have been added later. The new east–west roads to the north and south were a greater distance apart, making these insulae 'taller' in their north–south dimension. Dating evidence on the north side places this post-A.D. 40–60 (as judged by Insula IX evidence).

Thirdly, the second set of 'taller' insulae to the north are later still, being Flavian (as judged by the crossing of the infilled Inner Earthwork to the north-west and the dating from Cotton's excavation).

Similarly, expansion east and west might have been progressive, as indicated by the Public Baths. These might have been constructed down near the stream and Inner Defences Ditch before the road was extended out east; hence when the line was projected, it required the building's portico to be demolished and reconfigured.

This sequence of development is shown in FIGS 17.1–2, in a series of interpretative plans of the development of the town.

REVISIONS TO THE STREETS IN BOON'S 1974 PLAN

This section summarises the differences between the Boon 1974 plan and the results of this survey. The main changes are: reducing the projected extensions of the grid outside the walled area, adding more evidence for an intramural and intra-Inner-Earthwork street, and other smaller adaptations in the mid-eastern part of the town where Boon 'straightened up' a few buildings and roads which are genuinely askew relative to the main grid.

Outside the town:

- To the north-east, none of Boon's imagined roads exists; several new roads on a south-west to north-east alignment are proposed (Exterior 10, FIGS 6.29–31).
- To the north-west, while Cotton showed that some of the grid continued out in this direction, the angles were not perfect (Boon adjusted some to make them 90 degrees,

while Cotton had showed them as being imperfect; she has been corroborated by the fluxgate gradiometry). The grid was not quite as extensive as Boon imagined as space was made around the Later Iron Age or Early Roman burial enclosures (Exteriors 9 and 13, FIGS 6.26–28 and 6.38–40).

- To the south-west, Boon's projection into the Rampier Copse enclosure is too extensive; although his projected east–west road and the north–south one running between Insulae XXB and XVIIIB do exist, that to the west of Insula XXB does not (Exterior 21, FIGS 6.62–64).

Within the town:

- There are intermittent traces of a linear feature just inside the Town Wall Bank, which could be indicative of an intramural road. Boon represents one on the western side of Insulae XIII, XV and XXA. This is highly likely and not discounted by the fluxgate gradiometry, but since the roads generally only show in the fluxgate gradiometry by the presence of side ditches and buildings on either side, here if they do exist they are less than obvious, so they have been excluded from the interpretive image but might exist nonetheless (Interiors 8 and 12, FIGS 6.25–27 and 6.38–40). In Insula XX a south-eastern edge intramural road is suggested (Interior 12, FIGS 6.25–27). It is not quite so clear along the southern edge of Insulae XVIIIB and XVIIIA (Interior 15, FIGS 6.47–49). It seems clearer again round the southern side of the town (Interior 16, FIGS 6.50–52).
- I find no evidence to support the northern extension to the wall of the north–south road between Insulae XXVII and XXXVIA. Had there been one it should also have been picked up in Cotton's Site B, which it was not (Interior 3, FIGS 6.9–11).
- The north–south street between Insulae XXVII and XXXVIA is distinctly less straight that Boon represents it and is slightly twisted clockwise by a few degrees (Interior 6, FIGS 6.19–21).
- Boon's plan significantly rotated the Insula XXXVI temple enclosure to align with the grid. It and all the roads around it are genuinely askew (Interior 7, FIGS 6.22–24).
- Boon considered there was a north–south road between Insulae XVIII and XXIX. This would be directly on top of where the filled-in Inner Earthwork is now known to lie. It has not been included as it does not appear in the geophysical survey nor did the Antiquaries note solid evidence for it (Interior 10, FIGS 6.32–34).
- An additional possible east–west lane has been added just to the south of the modern churchyard (Interior 11, FIGS 6.35–37).
- In the south-east of the town, it looks as if there was a street running round just inside the Inner Earthwork Bank up to where the Public Baths were built (Interiors 14 and 17, FIGS 6.44–46 and 6.53–55).

STREET MAINTENANCE

The excavations within the town showed many repeated layers of metalling on the roads, suggesting successive phases of maintenance. These were probably more on a street-by-street basis than town-wide actions. Two sections across the streets flanking Insula IX showed that the main north–south street through the town had multiple layers of fine gravel, whereas some of the layers on the east–west road comprised larger nodules and soil. In both a significant heightening of the street level could be observed of about 0.3 m in the later third century (Fulford *et al.* 2006, 16). This correlates well with Boon's Trench K section which uncovered five street surfaces 'the lowest two well-separated from the others' (Boon 1969, 10); this could represent a comparable significant raising of the street in the mid-Roman period. Abandonment of the main east–west road through the town seems unlikely.

CONCLUSION AND FUTURE RESEARCH

The survey work has firmed up the presence and absence of many Roman streets, updating

Boon's 1974 plan. In the earlier chapter on Silchester's earliest phases, the evolution of the local Iron Age lanes in response to the new north–south Roman main road could be seen (p. 344); here too, we see that the Roman grid itself was not a one-phase creation, but a core area repeatedly extended. In many ways this is more likely. The coercive power necessary to demolish buildings across the entire Iron Age *oppidum* in order to lay out a new street system would have been phenomenal. Had the town been the focus of resistance to the invasion, or the centre of a rebellion on the fall of Cogidubnus (neither of which are attested), then such an action could have been envisaged with a massive population shift (slavery), destruction and re-foundation. But that is not the kind of narrative used for Silchester. It now seems only a core area was laid out with a new Roman-style grid under the period of the Cogidubnian kingdom, containing within it the timber building in the soon-to-be Forum area, and Fulford's hypothesised residential complex to the west. This was then repeatedly extended over the next couple of generations, providing plenty of time to rebuild older wooden structures in a new location should they be in the way (FIGS 17.1–2). Unfortunately for the Public Baths, they were built of stone resulting in the portico having to be sacrificed to the new conceptual layout.

But why re-orientate the town at all? There was already a nascent Later Iron Age co-axial road system on a different orientation, so why was an orientation on the cardinal points necessary? While a large number of Roman towns are so orientated, there are plenty of exceptions, such as *Verulamium* and Canterbury, where the angles of the Rivers Ver and Stour predominate over Roman convention. Rykwert has collated what we know of Roman augury and town foundation (Rykwert 1976, 45–50). While descriptions of cognitively dividing up space into quarters are common, explicit statements about the necessity of adherence to the cardinal points are less so. One exception is Varro describing the acts of an augur in defining a *templum*, where space is divided into four quarters, 'the left quarter, to the east; the right quarter, to the west; the front quarter, to the south; the back quarter, to the north' (Varro, *De lingua latina* 7.7, trans. R.G. Kent); though why it is important is not stated. Certainly, in the texts of the more practically orientated surveyors, the sources clearly state how cardinal orientation could be achieved, using a *sciotherum*, which comprised a standing brass rod in a circle, and plotting where the shadow hit the circle before and after noon. The cord joining these two points was the east–west *cardo*, and perpendicular to this was the *decumanus* (Rykwert 1976, 50). Ultimately the 'why' is a difficult question to answer, and the balance between it being due to a devotion to Roman augury or a sheer expression of will and a display of power by whoever was in charge over a population cannot be answered.

In terms of future research, dating the evolution of the street system is something that could be done without disturbing much of the rest of the stratigraphy on the site. Some judiciously placed excavations through the road gravels down to the Later Iron Age to Flavian material underneath would reveal to us: (a) the evolution of the street system; (b) the extent of the pre-Roman *oppidum* occupation; and (c) further inform us about the regimes of repair and maintenance of the road system (were finer grained gravels used on the main streets in contrast to the side streets, and were there town-wide re-metalling events?). A series of sondages through the roads would not disturb and destroy the complex urban archaeology that lies on either side, and could significantly enhance our spatial understanding of the site.

THE PROVISION AND DISPOSAL OF WATER

Boon (1974, 85–90) provides a good overview of the water supply and drainage on the site, so this section will restrict itself to several aspects where mapping the features onto the relative elevations provides evidence about supply and wastewater management.

WATER SUPPLY: WELLS, PUMPS AND PIPED WATER

The provision of water within Silchester was almost never a problem. The gravel terrace sits above Bagshot formation sands, which are themselves on top of London Clay. Wells cut through the relatively stable gravel into the sand would generally draw water unable to percolate further

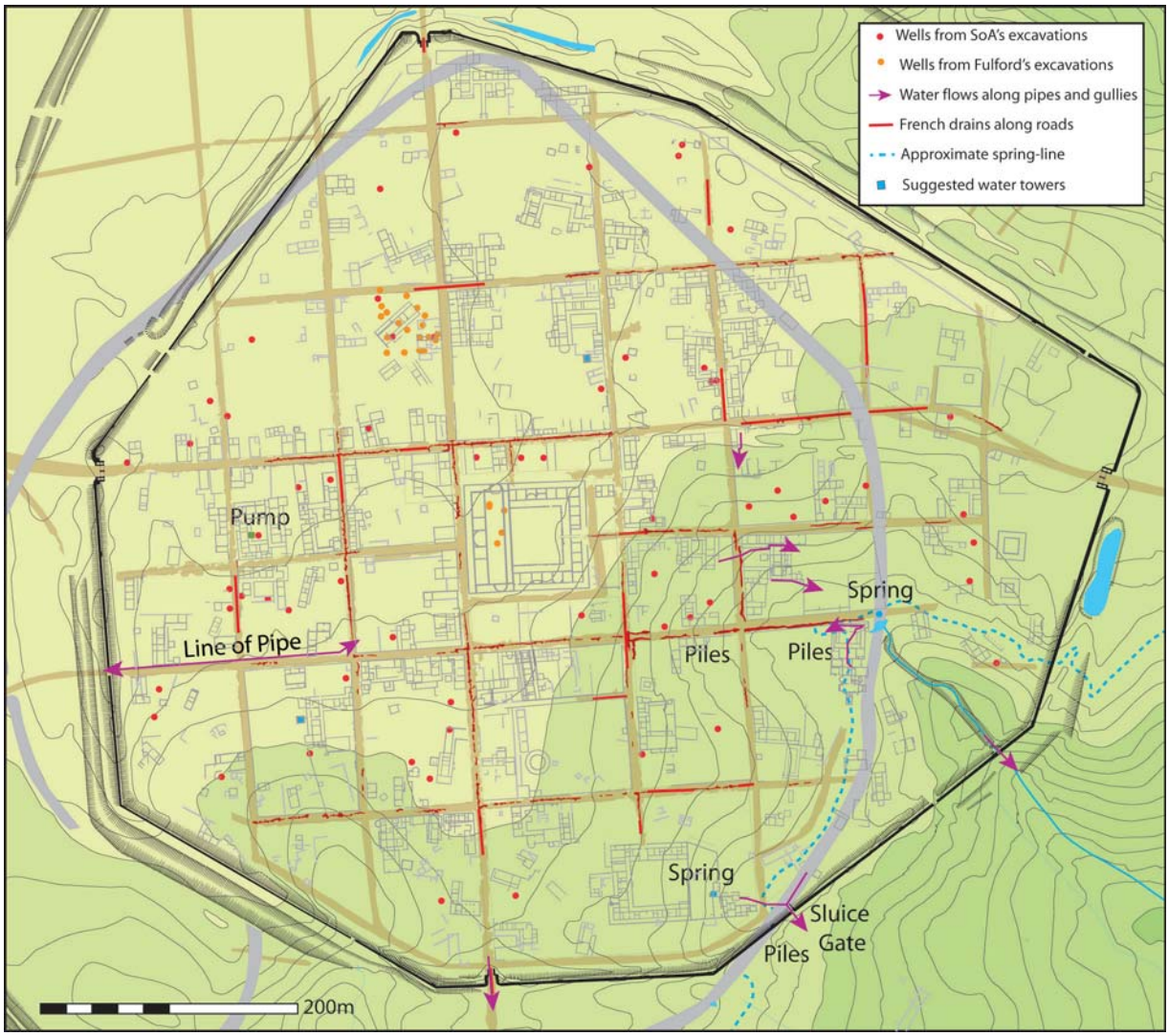

FIG. 14.2. Water supply and disposal within the town.

down through the clay, and in addition there were at least two springs within the walled circuit.

The main spring rose outside the Inner Defences but within the Town Wall, and to this day feeds the small brook which carved out a slight valley between the Forum and the Insula XXX temple complex. The Public Baths were built adjacent to this, presumably tapping into the water source (FIG. 5.44). A lesser-known spring was associated with the other main bathhouse, that of the *Mansio*. It was discovered welling up at the junction between Rooms 3 and 4, the latter having particularly thick walls as if it was intended to be a cistern (FIG. 5.50; Fox and St John Hope 1894, 231–2). Both of these springs are on more or less the same contour, low relative to the vast majority of the town which was situated on the higher ground. Elsewhere wells were, therefore, needed to dig down to the water table.

The wells were from 2.5 to 9.0 m deep. Sometimes these would be lined with re-used wine barrels, including silver fir thought to come from the Pyrenees (Williams 1977, 330). Sometimes oak frames would be used down to the sand, whereupon a sturdier flint lining was used. Whichever, a plentiful supply of sand-filtered water was available. Both Liversidge (1968, 50–1) and Boon (1974, 85–6) discuss the variety of structures used, and further details are provided in the Antiquaries' reports of many but by no means all of the 62 wells reported (e.g. St John Hope and Fox 1898a, 124). The number found by the Antiquaries represents a fraction of the original number present. To start with, they found hardly any in their first four seasons, and only then

started to recognise them. Secondly, the excavations within Insula IX have produced around 19 possible wells in addition to the three the Victorian plan showed in the area. The overall distribution on FIG. 14.2 will thus have only a very partial relationship to the actual distribution. One thing that is readily apparent is that the presence in larger, more Mediterranean towns of collective fountains at road junctions associated with shrines and local *vici* does not appear to be echoed by the distribution of wells clustering near street corners (Laurence 1994, 41). These water sources appear to be private rather than communal facilities in public spaces, with the vast majority appearing in courtyard areas, and none associated with temples.

The mechanism for raising water from the wells in most cases will have been buckets, but within House XIV.1, Pit J the remains of a pump were found. This was the stock of a wooden force-pump with leaden seals, assumed to be for pumping water out of the adjacent well into a storage tank, or from a tank at ground level to an overhead cistern for a bathhouse (St John Hope and Fox 1896, 233–4); the pump is discussed in Ditchfield (1897), Gowland (1901, 415), Liversidge (1968, 51), Boon (1974, 86–7), Oleson (1984, 266–8), and most recently has been comprehensively re-analysed by Stein (2012; 2014).

Various structures have been identified as water tanks (rather than just troughs), for example House XIX.2, Room 28 was a 5.8 m square structure with 0.9 m thick walls immediately adjacent to a richly furnished house. Another similarly interpreted was the isolated square building just south of House I.2 (St John Hope and Fox 1899a, 235). The thickness of the walls suggests the retention of weight which implies either the holding of water or that these were towers. While the first example is in an obvious position to collect rainwater from the roof of House XIX.2, that on the southern side of House I.2 is not.

AQUEDUCTS AND PIPES

Given the easy access to water on the site from wells, the necessity for an aqueduct was minimised, which was just as well as Silchester is on the high point of a gravel ridge. Nonetheless, that has not stopped references to the site having one (e.g. Stephens 1985, 201, 203; Douglas 2013, 108). These references derive from the discovery in 1896 of a deeply buried wooden pipe, evident from regular iron collars about 2.13 m apart; these had an internal diameter of 0.12 m. The collars stretched for a long distance from the Lesser West Gate to Insula III.

The Antiquaries were ambiguous about whether it was supplying water to the town or providing a means to release wastewater, since their measurements revealed it was 'practically horizontal', except at the eastern end (St John Hope 1897a, 424). Finally they concluded it supplied water, their logic being that if it had been conveying wastewater it would have been directed south down the slope rather than horizontally west.

To clarify which way it drained the depth measurements of the Antiquaries and a topographic model from the LiDAR have been combined. Discovered in Pit XVI.LL, the pipe was chased to the west and House XVI.3; along this stretch it was 6–7 ft deep (1.8–2.1 m). It was then followed further west to halfway along Insula XV where it presumably went under House XV.2, after which the Antiquaries only dug cross-sections at intervals 'until it reached the foot of the bank lining the city wall, from whence it flowed tunnel-wise under the bank and wall into the ditch. It here terminated at about 18 feet from the wall against a rough mass of flint masonry' (St John Hope 1897a, 423). Unfortunately they were unable to get permission to explore this masonry further.

FIG. 14.3 shows the geophysical survey, the Antiquaries' plan and a section based on the LiDAR and the Antiquaries' depth measurements (assuming the ground surface has not altered much since 1896). It shows that there is a very small rise in the pipe from the Town Wall running into the town, where it then takes a dip and a rise again before terminating. In the west its level appears to be at the same level as the base of the earlier Town Rampart Ditch.

Without any information on the brickwork where the pipe terminated in the ditch, it is difficult to be absolutely sure that the pipe terminated there, rather than the brickwork being a supporting structure carrying the pipe across the ditches; however, if the pipe did continue and carry on along the roadway, then it would be following a downhill trajectory as the roadway passed out

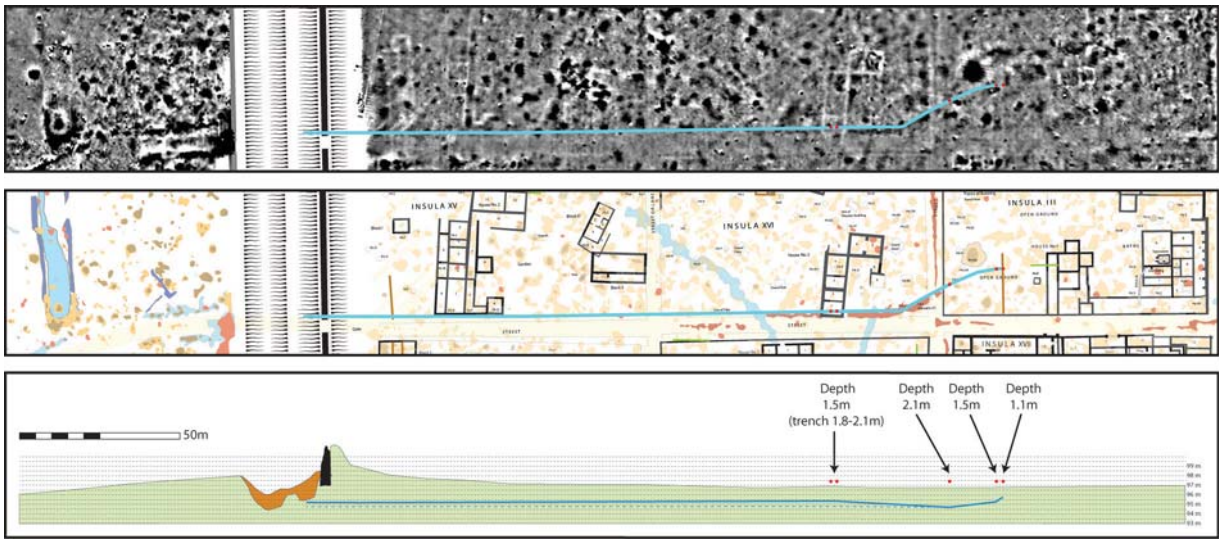

FIG. 14.3. The course and elevation of the iron-collar wooden water-pipe.

through the old Inner Earthwork and turned more south-west to head off towards Old Sarum. There is certainly a clear roadside ditch or linear that this pipe could have lain within, but it would very much be going down-hill.

Interpreting it as a water supply begs the question why would water be drawn from the Town Rampart Ditch. There is no trace in the geophysics of any linear conveying the pipe further west to collect water from any spring; and any spring would more than likely have been much lower as the spring-line on FIG. 14.2 indicates. It also makes the final dip in the pipe within Insula III very problematic.

The alternative is that it is for wastewater management. In the geophysics it is possible to see a large feature about 8 m in diameter, which is far larger than a normal well, adjacent to where the pipe terminates in Insula III. It could be that this was a sump collecting wastewater from the area, with the pipe used to pump out excess water into the Town Rampart Ditch (or earlier maybe the Inner Earthwork Ditch). This use of sumps for drainage within Insulae can be seen elsewhere in the town as in Block XXVIII.II where a drain emptied into the 4–5 m diameter Pit XXVIII.8 (St John Hope 1908, 201) (see FIGS 5.32–34, Interior 10). Drainage at Silchester is fairly good owing to the relatively thin soil over the gravel, but that is today without the hard surfaces and roof run-off to cope with that would have existed in its heyday as a town. Other mechanisms were put into place to help assist the removal of wastewater, but Insula III was quite plausibly relatively high status from the Late Iron Age through to the mid-Roman period, so might have received special attention, or required earlier attention if it had tiled roofs and paved surfaces while other buildings in the town had thatch and earthen floors which would have slowed run-off.

The argument for Insula III being a high-status block comes from the area in the Later Iron Age (Basilica excavation Period 3) being demarked by a large palisade around it, and on the basis of a hypothesis proposed by Fulford that there was a Claudio-Neronian building of some importance here, in the region of Insulae II, III and IX, perhaps spreading a bit into I and IV (Fulford 2008, 4–5). The evidence for this was threefold. First, he identified that there was a large number of pieces of carved stonework, such as architectural columns, occurring in early secondary contexts in these areas (e.g. from within the Basilica construction trenches, or some of his early buildings in Insula IX). This suggested to him an earlier monumental building somewhere in the vicinity. Secondly, the Antiquaries themselves when they went back chasing the pipeline into Insula III, observed that there was an underlying earlier important building that they had totally overlooked when first excavating in the Insula in 1891. ‘So far as the building could be traced it appears to contain at least two well-made drains built of tiles, as well as one or more hypocausts, and a

chamber with a tile floor' (St John Hope 1897a, 424). They speculated what kind of building might need water conducted to it from the Town Ditch and wondered if it might be a bathhouse, noting that later on there was another bathhouse constructed within the Insula in the south-east corner. Unfortunately bad weather meant they did not pursue excavation of this earlier building, nor draw a plan of their discoveries. Thirdly, Fulford pointed to the water pipe which he, like the Antiquaries and later Boon (1974, 88), associated with the building. To get around the fact that the Town Bank Ditch from which the Antiquaries thought the water was pumped now dates to the end of the second century, which is hardly the Claudio-Neronian period, Boon thought the supply must have come from a stream 150 m further out to the west; however, no geophysical evidence for a linear trench in this direction exists, and even if it did, it would require the water to have been pumped uphill (see FIG. 6.51: Exterior 17).

From the distribution of architectural fragments, Fulford considered his hypothetical palace to have spread over perhaps 2.63 ha, comparing it to the 2.2 ha proto-Palace at Fishbourne. He also wondered if the Neronian tiles from the town might be associated with such a project. Unfortunately the fluxgate gradiometry did not give a clear indication of any deeper buildings within Insula III, even though much of the south-west quadrant was relatively clear. But the Antiquaries did note that their earlier building was sealed under a 'hard layer of deliberately deposited gravel' (St John Hope 1897a, 424), so its failure to show may be more a limitation of the technique.

In conclusion, the dating of the pipe is ambiguous but it most likely post-dates the Town Rampart Ditch (*c.* A.D. 180–200); also the direction of its flow is decidedly problematic, though an outflow draining a large sump into the Rampart Ditch is the most likely. If Fulford is correct, and this was a very high-status development area early on, then this effort might have been a very pragmatic solution to removing wastewater from this relatively flat area of the gravel plateau rather than the street drains which operated so well on the slopes elsewhere to which we now turn our attention.

WASTEWATER: CENTRAL GUTTERS AND DRAINS

The major buildings, such as the Forum with its large roofed area and paved surfaces, certainly generated sufficient run-off in the British weather to require special-purpose drains to be constructed. In the Forum's grandest phase (Period 6, FIG. 5.31) a large drain came out of its main entrance, *c.* 0.4 m wide, 1.0 m below the level of the ambulatory (Fox and St John Hope 1893a, 545). This flowed into a 0.6 m wide and *c.* 0.6 m deep trench down the street, eastwards, and continued running between Insulae V and VI. Here it was excavated, revealing it to be a trench about 1.0 m wide, and varying from 0.3 m deep in the west to 0.15 m in the east (St John Hope 1906, 154–5).

These street drains are a major phenomenon of Silchester. The roads were in the main made of layers of compacted gravel; cobbled surfaces were seemingly reserved for the wear and tear where the streets passed through the gates; indeed at the North Gate cobbles were only applied in the later Roman period (Boon 1974, 91–2; Fulford 1984; Fulford *et al.* 1997, 108; Fulford *et al.* 2006, 16). However, down the middle of many of the roads ran rumble or French drains, gullies which were not open but filled up with larger gravel or cobbles so that water could flow between, though over time sediment would build up and they would have to be re-dug and re-filled periodically. Many of these were recognised by the Antiquaries, such as the drain along the east–west road between Insulae VII and VIII which had 'traces of a central gutter pitched with flints' (Fox and St John Hope 1894, 210).

In 1958, when Boon excavated his Trench K, he examined the north–south street to see if there was an entranceway through the Inner Earthwork (which there was not). During the work he found a drain 0.8 m across and up to 1.8 m deep (Boon 1969, 10). Similarly Fulford found comparable drains while excavating the roadways through the North and South Gates. In the south there was a rumble drain *c.* 0.6–1.0 m wide. 'The mouth of the drain was formed by large fragments of ironstone and quern … Although there was no independent dating evidence, the position of the mouth and the alignment of the drain strongly suggest that it respected the late

second-century rampart and thus post-dated its construction' (Fulford 1984, 50). At the North Gate he also found major gullies to drain the street and neighbouring properties after the Wall construction (Fulford *et al.* 1997, 104, 141). The extent of these drains was made clear in the Royal Commission's aerial photographic plot (Bewley and Fulford 1996, 388) and the fluxgate gradiometry has extended the known network even further, so it can now be seen to be covering almost all of the streets in the town, with evidence only really lacking from the extreme north-west on the highest and flattest part of the terrace. Curiously a section across the east–west street on the north side of Insula IX showed no trace of a central drain, though the aerial photographic plot suggested there should have been one along that line (Fulford *et al.* 2006, 16).

The dating of these street drains is problematic. Boon considered them to be third century from his Trench K (Boon 1974, 89), while Fulford's excavations at the Gates suggested they were later second century at the earliest. However, rumble drains collect sediment and gradually cease to be effective; so they need to be regularly emptied of their gravel and sediment fill and restocked with large gravel with air gaps for the water to percolate through. Hence Boon's dating may date the latest maintenance rather than the original construction. The sections through the roads bounding Insula IX will be instructive here when published.

Once the Town Wall had been built, it was essential to ensure water could flow through it and out of the town. It seems as if three strategies were developed: first, canalising the brook through a culvert under the Town Wall; secondly, channelling it through a central road drain through the South Gate; and thirdly, taking advantage of the infilled Inner Earthwork ditch which the Public Baths had drained into, and despite by the late second century it almost certainly being filled up, using its water-conducting properties to build the South-East Gate (aka the Sluice Gate) where the Town Wall crossed it. This gate therefore combined the function of pedestrian access above ground, and water outflow beneath, both from the open stone drain believed to come from the *Mansio* bathhouse, and the slower outflow through the infilled Inner Earthwork.

In the Late and post-Roman era drainage again became a problem. The Antiquaries observed that the 'Sluice Gate' had been blocked in antiquity with concrete and tiles (Fox and St John Hope 1894, 227–32), added to which the brook exiting through the defences must have got clogged frequently; both these occurences would have led to a build-up of water in the south-east corner of the town. This is evident from the extensive build-up of deposits in this quarter. The Antiquaries noted that in the area of the Public Baths there had been a build-up of fine black sediment, similar to that which develops at the bottom of a pond, to a depth of 1.8 m, surrounding and engulfing the Baths (St John Hope and Fox 1905a, 363–4).

SEWERS AND CESSPITS

While rumble drains are good for alleviating storm water, they are unable to cope with raw sewage, though they could possibly cope with the liquid run-off from septic tanks or cesspits. While some recent works have imagined open roadside ditches at Silchester carrying away raw sewage (Fagan 2011, 199), there is no clear evidence for this, and the lack of regular provision of side drains was explicitly pointed out by Boon (1974, 89). Without a constant flow of running water, which a town on a plateau was never going to have, the drains carrying effluent would have clogged up immediately. Instead we must consider that Silchester operated with cesspits and the collection of night-soil and urine. The relationship between this and potential tanning operations is discussed later (p. 416).

THE ROMAN ROADS OUT OF THE TOWN

Tracing the Roman roads in the Antonine Itineraries was how the earliest antiquarians first engaged with Silchester, traversing the country, trying to make sense of the Roman placenames and distances between them. Amongst these itineraries *Calleva* appeared to have an importance second only to London in terms of the number of routes starting there or passing through it: *Iter* VII (Chichester to London), *Iter* XIII (Caerleon to Silchester via Gloucester), *Iter* XIV (Caerleon to Silchester via Bath), and *Iter* XV (Silchester to Exeter) (Rivet and Jackson 1970).

Connectivity with the rest of Roman Britain was provided by this road network, especially given that Silchester was not directly on any major rivers. In parts of northern Gaul it is starting to be appreciated that some roads had Iron Age origins. In the case of *Calleva* it would not be impossible that the roads to the other *oppida* of the Southern Kingdom or *Verulamium* had earlier origins.

This section reviews the discovery and actual evidence for these routes radiating out of Silchester, and evidence for their date. While all but the road to *Verulamium* have repeatedly appeared on Ordnance Survey maps, the actual evidence for them is not always quite so clear. The major roads are discussed here clockwise from the road east to London.

THE ROAD EAST TO LONDON (THE DEVIL'S HIGHWAY)

The road to London had been surveyed by the Sandhurst military surveyors (Narrien 1836; 1837; Ellis 1838), and evidence for it is perpetuated in modern roads and tracks, particularly within the wooded areas of Windsor Great Park and Swinley Forest (Kempthorne 1914–16, 25). In the immediate vicinity of Silchester cropmark and geophysical evidence shows the road coming up the hill, but it is only clear towards the top in the fluxgate gradiometry where it cut into the gravel rather than the clay, and where side ditches show well-filled with anthropogenic material. Nonetheless, its actual course appears to be *c.* 20 m south of where the OS places it (compare OS dotted line and geophysical interpretation in Exteriors 14 and 15, FIGS 41–46).

The road heads up the hill towards the Insula XXX Temple complex but then diverts north slightly to join up with the main east–west road through the town. Whether it had ever continued directly on through the temple area, and up to the front of the Forum is possible but a moot point. Fulford considers the co-alignment of the two roads to be evidence of it having initially run through the area and only later diverted to the north, explaining the necessity as being because of a possible rise in the amount of through-traffic from London to the South-West which needed to be diverted away from the Forum area (Bewley and Fulford 1996, 388; Fulford 1999, 164). The alternative is that the sanctuary or possible burial area was indeed early, and both the street from the Forum and the London road headed towards it, just as the roads around Cirencester focused on Tar Barrow Hill adjacent to where the town was to develop, swinging away only very close to the actual town to join the new town grid (Creighton 2006, 140–2, 147; Reece 2003). Ultimately without excavations within the gardens of the Old Manor House the different options cannot be resolved.

THE ROAD SOUTH TO WINCHESTER AND CHICHESTER

In the Late Iron Age Chichester and Winchester were both part of the Southern Kingdom that *Calleva* started its life as part of, ruled by the Commian dynasty. Just as many roads in Northern Gaul are starting to be understood as Iron Age rather than Roman, it is not unlikely that there may have been a pre-Claudian route from Chichester to Silchester. A Roman road south was identified as early as Camden (1610, 272), and the description was elaborated upon in Gough's edition: 'A military road called Longbank and Grimesdyke, pitched with flints, runs from the south gate of the town to the north gate of Winchester' (Camden 1789, 142). Stukeley reaffirmed this description, though referring to Grimesditch (Stukeley 1776, 179); however, one wonders if both were not confusing the long linear earthworks which run south with the actual road.

The existence of the metalled road was positively confirmed a generation or so before Maclauchlan's survey, two miles south of Silchester at Latchmere Green. Maclauchlan reported a statement by John and Ambrose Ham that James Simpson, a 90-year-old sawyer, at Silchester, 'made a sawpit at the back of Moor's Farm, and in digging down, came upon a bed of large flints like a road. A. Ham heard his father speak of the same flints' (Maclauchlan 1851, 235 note 1). This was just to the west of the present road. The Antiquaries took a break from their wall-chasing to explore there in 1905 confirming the location; they excavated in Latchmere Green in the garden of William Ham, presumably a descendant (St John Hope 1906, 167).

While this road to Winchester was clearly established, a route to Chichester was always thought

likely but was more challenging in its discovery. Karslake made claim to have discovered it in his highly problematic excavation of a supposed earthwork and gateway to the south-east of the town but his results were not generally accepted and no supporting evidence can be pointed to (see p. 320, Karslake 1920).

The actual discovery came with the work of the Ordnance Survey in the late 1940s. First, an element of the Chichester–Silchester route was identified near Milland (W Sussex); after which Margary unravelled the entire length (Margary 1949). The road headed not directly for Silchester, but to the spur to the south, where it joined the Winchester road a little north of Latchmere Green. What was suspected to be the roadway was found slightly to the west of its marked position on current Ordnance Survey maps when an electricity cable was cut through it just south of Haines Farm (Brading 2011, 129–30).

THE ROAD SOUTH-WEST TO OLD SARUM (THE PORTWAY)

It is the precise direction of the road to Old Sarum which has perhaps created the greatest confusion. Established orthodoxy now traces it as heading out of the town through the Lesser West Gate; new LiDAR covering Pamber Forest now confirm that this is the case, but this was not how earlier antiquarians saw it, and as will be shown, there is good reason to believe that the final established route may not have been the original one.

The road from Old Sarum actually survives very well in the later medieval and modern landscape where it was called the Portway (Codrington 1903, 301). It is very visible in parts, but was not at all obvious before LiDAR any closer to Silchester than Hannington, 12.8 km to the west-south-west. Early antiquarians argued over the precise route (e.g. Lethievllier 1770; Willis 1770, debating an imagined route first going west via Tadley). In his survey of the itineraries Colt Hoare suggested that the road left Silchester via the South Gate and claimed that he could see the road heading off in the woods just to the south of the town, though thereafter he could find no trace until near Hannington (Hoare 1821), but his identification of the roads was mistaken, marking up on his plan as roads the linear earthworks to the south of the town.

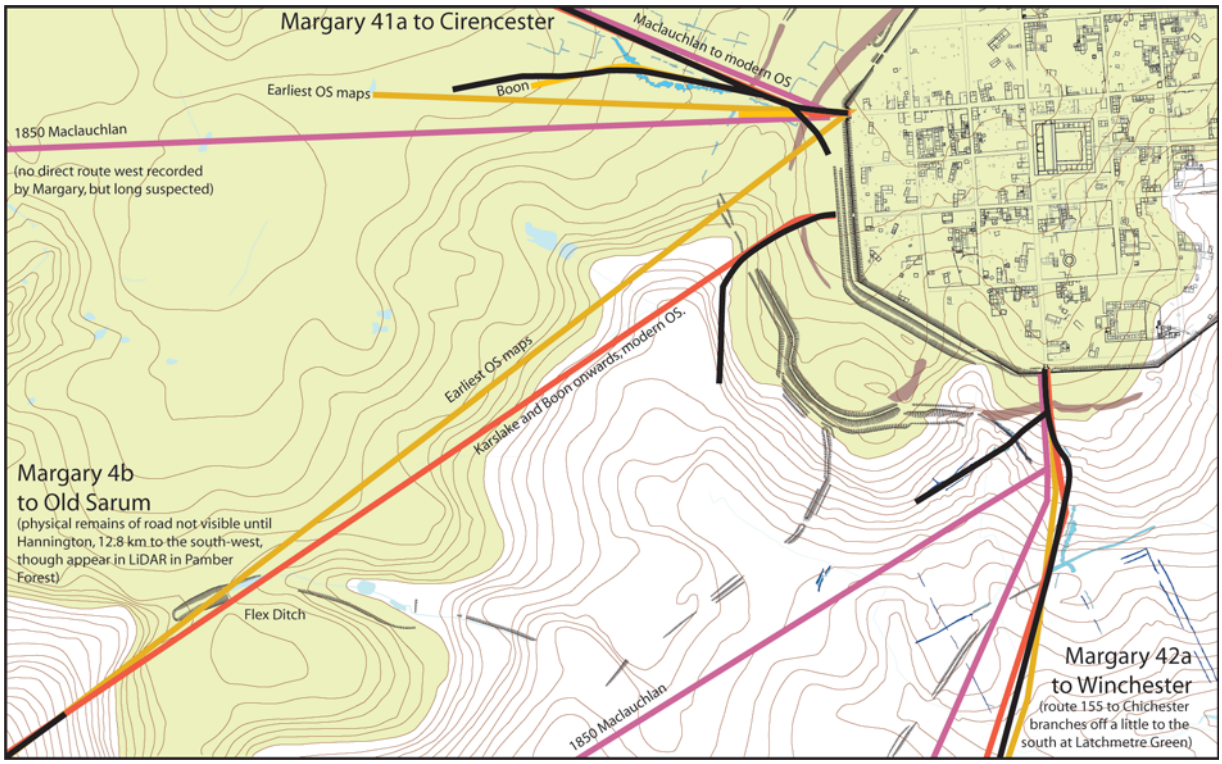

FIG. 14.4. Changing impressions of the route of the Roman roads to the west and south-west.

FIG. 14.5. Aerial photograph of a possible early road to Old Sarum from the South Gate: Historic England Archive SU6362/54 c. 1972 (© Crown copyright — HE).

When Maclauchlan conducted his survey of the embankments he also pondered the same question. Similarly he could find no trace of the road between Hannington and Silchester. To get around this, he went back to where the road was known and projected its line 12.8 km towards Silchester. He calculated that it headed directly for the South Gate and not the West or Lesser West Gate (see FIGS 3.6 and 14.4) (Maclauchlan 1851, 237). All the Victorian excavators concurred with Maclauchlan from Joyce (1881b, 345) through to the Antiquaries' final Great Plan in 1910 which again showed the Old Sarum road branching off from the South Gate. The Ordnance Survey, however, took a different view. The 1874, 1877 and 1896 editions all showed the road arriving at the West Gate, though it is not clear who was driving their interpretation. Then, after the discovery of the Lesser West Gate in 1911, the OS changed where they marked its position and showed it arriving there instead. The LiDAR in Pamber Forest confirm that this latter course was certainly the case for the majority of the road's existence as the roadside ditches, banks and camber are prominent in the data.

However, Maclauchlan's projection of the line from Hannington to the South Gate was correct; it was an excellent piece of surveying confirmed on modern OS maps. The road line from Old Sarum does indeed make a minor divergence near Hannington which happens to be the highest elevation on the route between the two towns. However, nowhere along the projected line close

to Silchester within Pamber Forest reveals traces of an earlier road along this line in the LiDAR data. Nonetheless, close to Rampier Copse, there appears to be a road in just the right location, revealed in both the geophysics and in an aerial photograph. This leads west-south-west from the South Gate (Exterior 21, FIGS 6.62–64 and 14.5, NMR SJ6362/54 *c.* 1972). This opens the possibility that this was an earlier road, but when it came to paving the roadways and digging the ditches the alternative line was followed. It may be that the alignment of the road from the South Gate is coincidental, and this was always just a local lane running down to the brook below Rampier Copse. No trace of an earlier or alternative route was observed in the electricity cable watching-brief which crossed the Portway road-line just south of Tadley (Brading 2011, 111).

The possible earlier road-line has the curious position of coming in from the west-south-west, and being funnelled between the two linear earthworks making the whole complex look a little like an enormous banjo enclosure. Perhaps the ancient entrenchments prevented livestock coming along the roads and bypassing tolls into the town. The existence of dykes in relation to roads can be paralleled at Chichester where a major north–south linear (NS1) runs more-or-less parallel to the Roman road north of the town to Silchester. Dating of the earthwork is of course problematic, its association with the road suggests it is not pre-Roman, and there is an argument for the northern stretch of it being medieval (Magilton 2003, 158).

THE ROADS WEST TO *SPINIS* (ERMIN STREET) AND ON TO WANBOROUGH AND *CUNETIO*

The road to the west has similarly caused confusion and moved around a bit. Two itineraries suggested roads should lead west to *Spinis* (conventionally interpreted as Woodspeen, though archaeological evidence is slight), leading eventually to Bath (*Iter* XIV) and Cirencester (*Iter* XIII). Originally a direct route west was imagined, and this can be seen on the early Ordnance Survey maps. Perhaps encouraging this was the presence of a possible (though now doubtful) Roman milestone at the west end of Silchester Common. Its earliest record comes from its description in 1280 as the Hyneston acting as a medieval boundary marker (National Archives: C47/11/3/10). Stukeley referred to it, mentioning the myth that an imp had thrown it from Silchester's walls to where it now lay (Stukeley 1776, 179). Later writers suggested it was called the imp stone as it supposedly had the letters IMP carved on it (Narrien 1837), though neither investigation around the time of the Antiquaries' excavations when the stone was taken out and scrubbed, nor in 1954 when it was dug up by a 'roadman' and examined by unidentified individuals from the University of Reading, saw any traces of it according to NMR records (however, despite the lack of evidence, it made it into *Roman Inscriptions in Britain* as *RIB* 2221). That it did not appear in King Edward's charter of A.D. 909 granting a wood between Tadley and Silchester to the Bishop of Winchester which might conceivably have incorporated it as a boundary marker also suggests it was not present there at that date (MS Ref.: Sawyer 377: Grundy 1927, 172–7).

The idea of a route directly west also appealed to Maclauchlan because the linear nature of the Hampshire-Berkshire border along this line was suggestive of a road due west, complementing the one to the east towards London; though he himself admitted: 'be that as it may, there is not even a flint in the way side to lead to a supposition that the road was ever there' (Maclauchlan 1851, 238). The Sandhurst students sent out to survey it in the 1830s failed to find any trace of a road between Silchester and Newbury (Narrien 1837).

This imagined route was finally dismissed in the early twentieth century by Crawford who searched for it in vain crossing Greenham and Crookham Commons where it should have been visible, had it existed. Instead he investigated an earlier local antiquarian reference by Barfield and concluded the road ran as its line is now understood, a little to the north-west (Crawford 1921, 181–5; Barfield 1901, 14). Its discovery was confirmed when it was sighted in aerial photographs which showed the paddocks or enclosures either side of it as the road left Silchester heading west-north-west (FIG. 3.13); it was this series of photographs, along with that of the Inner Earthwork, that launched Boon's series of investigations in the 1950s. The road shows clearly in aerial photography, geophysics and LiDAR within the woods to the north-west. Its alignment appears to be later than the first to second century as it ignores and overrides a

cremation cemetery on a different alignment which produced Flavian to Hadrianic material (p. 375), so again there is a possibility that the earliest Roman road west may have followed a different line. Evidence from further afield, at the roadside-settlement at Thatcham (Berks.), suggests the road was in existence by the second century, though how much earlier is unclear (Pine 2010, 31).

Despite this new road towards the west-north-west, Boon still thought that a road due west might exist (Boon 1974, folding plan), though chose not to include it on all his reduced plans (Boon 1969, 23); some evidence suggestive of such a road does come from the geophysics here with a possible boundary ditch (Exteriors 12–13, FIGS 6.35–40).

THE ROAD NORTH TO DORCHESTER-ON-THAMES

This road has always been reasonably secure and is little contested. Like the London to Silchester road, it was surveyed by the Sandhurst students (Narrien 1837) and Maclauchlan himself observed a large dyke proceeding north from the North Gate towards Pangbourne and on to Dorchester-on-Thames (Maclauchlan 1851, 231, 239). The geophysics show the line to be slightly to the east of the position marked on the Ordnance Survey as it leaves the town, but otherwise corroborate it.

Branching off this was a local lane. As the road north leaves the town, a fork in it shows a separate droveway running north-east along a natural spur in the landscape. Either side of this were enclosures in a similar way to the evidence from the west of the town.

THE ROAD TO THE NORTH-EAST TOWARDS *VERULAMIUM*

Margary (1967) and others expected there to be a road from *Verulamium* to Silchester, and not unreasonably so, as both were major centres in the Late Iron Age and Roman periods. A road certainly heads south-west from *Verulamium* (Margary 163) and has been identified almost as far as the Thames crossing near Maidenhead, but then only fragments have been suggested from Wargrave towards Silchester (Margary 160cc).

As discussed under the section on linear earthworks, there is a possible feature on the LiDAR results which shows a raised bank heading off in approximately the right direction, curving past the Amphitheatre and then running north-east. This roadway *may* be the same as the one excavated by TVAS at Mortimer Hill Farm; this is on the right orientation, but perhaps a little too far to the west of the projected road-line. Here a Bronze Age settlement was found, crossed by the twin ditches of a Roman late first- to mid-second-century trackway which point back to this one, together with a small cremation cemetery of the same date (Taylor 2011). LiDAR data have not been inspected beyond the extent of the survey area to confirm this, but the direction is good, such a road should exist, though the alternative is that it could be another linear earthwork.

THE CONNECTIVITY OF SILCHESTER

In conclusion, this brief review of the roads around Silchester again emphasises how knowledge and ideas change, and how much remains unknown. Systematic LiDAR will eventually flesh out the gaps in our knowledge of the developed Roman road system. However, the evidence that the road to Old Sarum possibly originally exited from the South Gate, and that the road to the west possibly started off in a different direction to the later established line of Margary 41a, should be heeded as a warning that we do not know how long it took for the full Roman road network to evolve. As with the street-grid, it is probably a mistake to imagine it was all planned in one go early on; some roads will have evolved from Iron Age origins, others from the new political landscape.

CONCLUSION

In the development of the street-grid we have seen how the evidence is now clear that the street-grid was not a one-off plan, but a staged development. The details are as yet unclear, but a suggested outline both helps make sense of the differently sized insula blocks, and also sets up a

hypothesis to test in the future. The new plan provided here has abolished some streets and 'un-straightened' some of the streets which Boon 'improved' on his plan.

The site, rich with wells in addition to containing a spring-line in the south-east within the Town Walls, had no need for piped water or aqueducts, and the only known water-pipe coming into the town increasingly looks like an outflow from a water sump designed to drain the high-status insulae to the west of the Forum. Elsewhere the town benefited from a fairly comprehensive series of rumble drains or French drains cut into the middle of the orthogonal streets, though dating these is problematic as they required periodic re-cutting. The combined evidence from aerial photography and geophysics has extended this network to cover most of the town.

Beyond the Town Walls the roads to further afield in Roman Britain appear to have been subject to change and gradual development, like the interior street-grid. Only the roads north and south have been uncontentious, while roads west to Old Sarum and *Spinis* may have altered course over time, and the road from London is a little south of where the Ordnance Survey would have us believe.

When we examine Roman grids and Roman road networks we are keen to see a great plan, a grand design, when often decisions behind them may have been piecemeal and over generations. Boon and others had the urge to 'tidy' and 'straighten' irregular grids, but the Roman town was not as neatly ordered as we sometimes wish to paint it.

CHAPTER 15

TRADE AND INDUSTRY

Boon, in his chapter on 'Industry, crafts and trade', summarised much of the material evidence from the excavations of Joyce through to Richmond, based on his incisive knowledge of the collections (Boon 1974, 267–96); meanwhile Fulford's excavations have provided even more detail about specific activities, particularly metal-working, within the areas of the Basilica and Insula IX. This is the topic where fine-grained excavation data, from material culture recovered in stratigraphic sequence and analysed using the latest techniques, have so much to say. Nonetheless, the geophysics, the historiographical survey and the mapping of previous work open up possible discussions about a number of specific activities.

This chapter is limited to four themes: shops and housing, examining zoning within the town; a discussion of livestock and the possible evidence for large-scale tanning just outside the town (a commonly elusive activity in Roman towns in Britain); the new evidence for tileries and potteries near the walls; and finally a discussion of the major dyeing industry of Roman Silchester imagined by the Antiquaries.

SHOPS AND HOUSING

SHOPS: *TABERNAE*, STRIP-BUILDINGS AND ARCADES

The development of the market and the infrastructure that went with it was one of the major developments of the first century A.D. in Britain. Apart from the material culture, the key manifestation in terms of structures was the creation of specific buildings for commerce, *tabernae*. Their morphological evolution in Italy helps provide a background to what we will examine at Silchester. Originally *tabernae* could be found framing the forum square and built near the entrances of atrium houses. As the Republic and urban elite developed, building larger lavish houses, so too did the number of *tabernae* constructed along the front of their buildings, increasing from one or two by the house entrance to entire rows along the front and round the corner. The second century B.C. saw the development of purpose-built long rows of commercial buildings (e.g. along the Via degli Augustali in Pompeii, or between the forum and the river at Ostia); this development happened in tandem with the creation of apartments to be rented out. Commerce was attracting private investment (Flohr 2014). Individual investment can be seen in these developments, not just on a large scale as in Pompeii, Ostia and Rome, but also on a more modest scale, particularly in northern Europe which saw the construction of individual strip-houses combining shop, workshop and residence. MacMahon (2003) has recently surveyed the evidence for all the different forms of architecture he identified as *tabernae* in Roman Britain. His work details much of the theoretical background and structural evidence, though without a strong chronological dynamic. At sites like Silchester this is understandable as dating evidence for most of the buildings from the Great Plan is entirely absent. Nonetheless, it provides a good starting-point from which the geophysics, combined with the re-analysis of earlier excavations, have managed to draw out some new patterns and suggest new ways that the spatial patterning of other Roman towns can be analysed where large-scale survey has also taken place.

THE EVIDENCE FROM SILCHESTER

From the Late Iron Age onwards, traders from both within the community and from afar

must have had some kind of presence at Silchester. From the temple in Insula XXXV came an inscription referring to a *collegium peregrinorum* (*RIB* 69–71). Frere and Fulford re-analysed this and considered that *peregrinus* did not necessarily mean non-Roman citizens, but non-local citizens of the Atrebatic *civitas*, whose *origo* or registered domicile was elsewhere. They considered a guild of traders was most likely, and on the basis of both the orientation of the temple (not aligned to the possibly Flavian street-grid as they then saw it) and the date of other Purbeck marble inscriptions, suggested the building might date to either the Cogidubnian kingdom or a little later in the first century A.D. (Frere and Fulford 2002). If non-local traders were present, some degree of infrastructure was likely to have been created either *by* them from their own investment, or *for* them through local benefaction potentially controlling their activity.

From the Great Plan a series of *tabernae* can been identified. These range from individual strip-buildings to rooms on the periphery of larger residences, but they also include larger commercial ranges.

Individual *tabernae*: strip-buildings

The dominant form of suspected shops is the individual strip-building, where the short end of the structure is open onto the street and is the accessible retail section, while workshops or residential accommodation are at the back. At Silchester this type of building predominates on the main east–west street between the London and western gates, while it is almost absent along the roads leading out to Old Sarum, Winchester, Chichester and Dorchester-on-Thames.

Geophysics also have something to offer here beyond adding the occasional wall to the Great Plan. The distribution of areas of notably enhanced magnetic field, termed here 'hotspots' (>10 nT), most likely represents traces of heat. These areas have already been mentioned as being prominent *just outside* the town where funerary pyres, noxious industrial activities or middens may have existed (p. 377), but *within* the town they also cluster along the east–west road in the same locations as the strip-buildings. Since many of these would have been workshops, smithies, bakers, brewers, and many other trades requiring the manipulation of heat throughout the day, this prominence makes sense above that which might be seen in a simple domestic residence. Perring observed how many strip-buildings in Britain had large ovens often built on the right-hand side of the workshops, roughly half-way along the building, and this may help explain the geophysical signatures (Perring 2002, 56). He was also right to caution that not all strip-

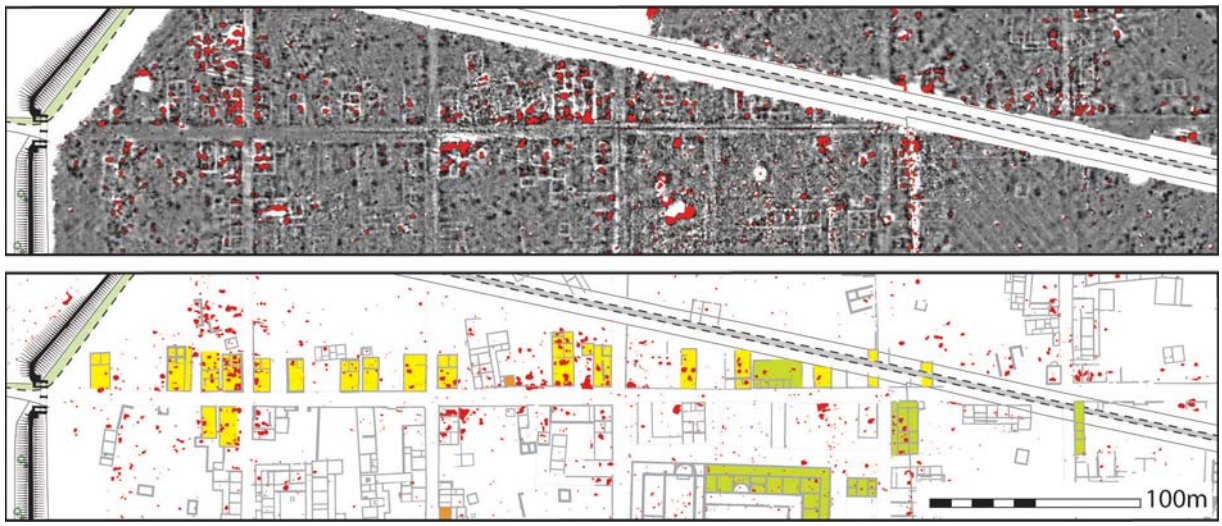

FIG. 15.1. The main east–west road showing lots of readings >10 nT (in red) in the fluxgate gradiometry data (above) and the distribution of strip-houses (yellow) and other tabernae (green) against a background of these features (largely representing heat signatures), but excluding dipoles (largely representing metal). For a wider view see FIG. 13.3.

buildings were shops, but in this case the combination of positioning and geophysical signature does make the identification of most of them as workshops or shops highly likely (Perring 2006).

This location of strip-buildings along one street almost to the exclusion of all others does show a very strong degree of zonation. The other areas within the town where there are slight clusters of 'hot-spots', apart from the Forum, are around the South and Lesser West Gates, one of the ranges of the *Mansio*, and perhaps towards the North Gate (the evidence from the East Gate is too confused with both the change in boundary and the modern farm).

Clearly, however, the east–west road was the principal thoroughfare and prime trading location. By the later Roman period, which the Great Plan is more likely to represent, this had certainly established itself, but the consistency in the 'hotspot' distribution does not suggest there had been other significant zones of activity elsewhere beforehand.

Examining the strip-buildings, what is perhaps surprising is that, given their longevity in that location, there was no attempt to unify any of these by building a covered walkway in front of them. This had happened at Wroxeter, where multiple strip-buildings created an awning to join themselves creating a unified covered façade in Insula VIII (Bushe-Fox 1916, pl. XXIX); similarly the Flavian shops in Cirencester Insula V were gradually amalgamated, again with a portico added to unify them (Holbrook 1998, 189–211). Perring cites other examples in Lincoln and Heronbridge where multiple strip-buildings were rebuilt in co-ordinated building programmes (Perring 2002, 56). Perhaps at Silchester they had all been constructed too close to the road so that there was simply no space to construct a front portico.

The only remaining stand-alone shop is the possible mill-house, interpreted as having settings for six millstones, on the north–south road near the South Gate (House XVIII.3; St John Hope and Fox 1898a, 113–14), situated close to the road going down to the lower fields and more-likely arable land than the plateau top, if this interpretation is believed (see p. 146).

Tabernae as part of larger residences

Tabernae built into larger houses were another type of store common in Mediterranean architecture, but, as has been observed, in the northern provinces shops were only occasionally subordinate to larger residences (Mayer 2012, 77). A number of cases of these have been suggested at Silchester, but few of them are particularly compelling. The Antiquaries suggested the following:

- House II.2, Rooms 3, 4, 7 and 8 (FIG. 5.28; Fox 1892, 276), with no specific justification.
- House VII.3, Rooms 1 and 3 (FIG. 5.41; Fox and St John Hope 1894, 204), with no specific justification.
- House VII.4, Room 1, where the thickness of the western wall adjacent to the road suggested to them a counter (FIG. 5.41; Fox and St John Hope 1894, 205), though additional walls to the plan of the building from the geophysics make this less likely.
- House IX.3, Room 3, a small room positioned like a winged pavilion on a corridor building, but it had a seemingly thick wall and double set of rooms (4 and 5) separating it from the rest of the house, so a shop was thought a possibility (FIG. 5.15; Fox 1895, 445).
- House XIII.1, it was considered that one or two of Rooms 1–4 could have been shops but there was no other evidence and the Antiquaries concluded it was unlikely on a quiet side road (so not marked on FIG. 15.1; see FIG. 5.25; St John Hope and Fox 1896, 219).
- House XIV.1, Rooms 2 and 3, because they were street-facing and had a simple red tesserae mosaic and no floor respectively; otherwise no evidence, though it was thought Rooms 4 and 5 behind could have been store rooms for them (FIG. 5.25; St John Hope and Fox 1896, 221).

It was noticeable how the identification of individual rooms as shops tailed off in the reports as St John Hope took over the lead writing the reports rather than Fox. MacMahon only drew on Houses XIV.1 and II.2 when in search of examples (MacMahon 2003, 34), though House IX.3 is perhaps the strongest case.

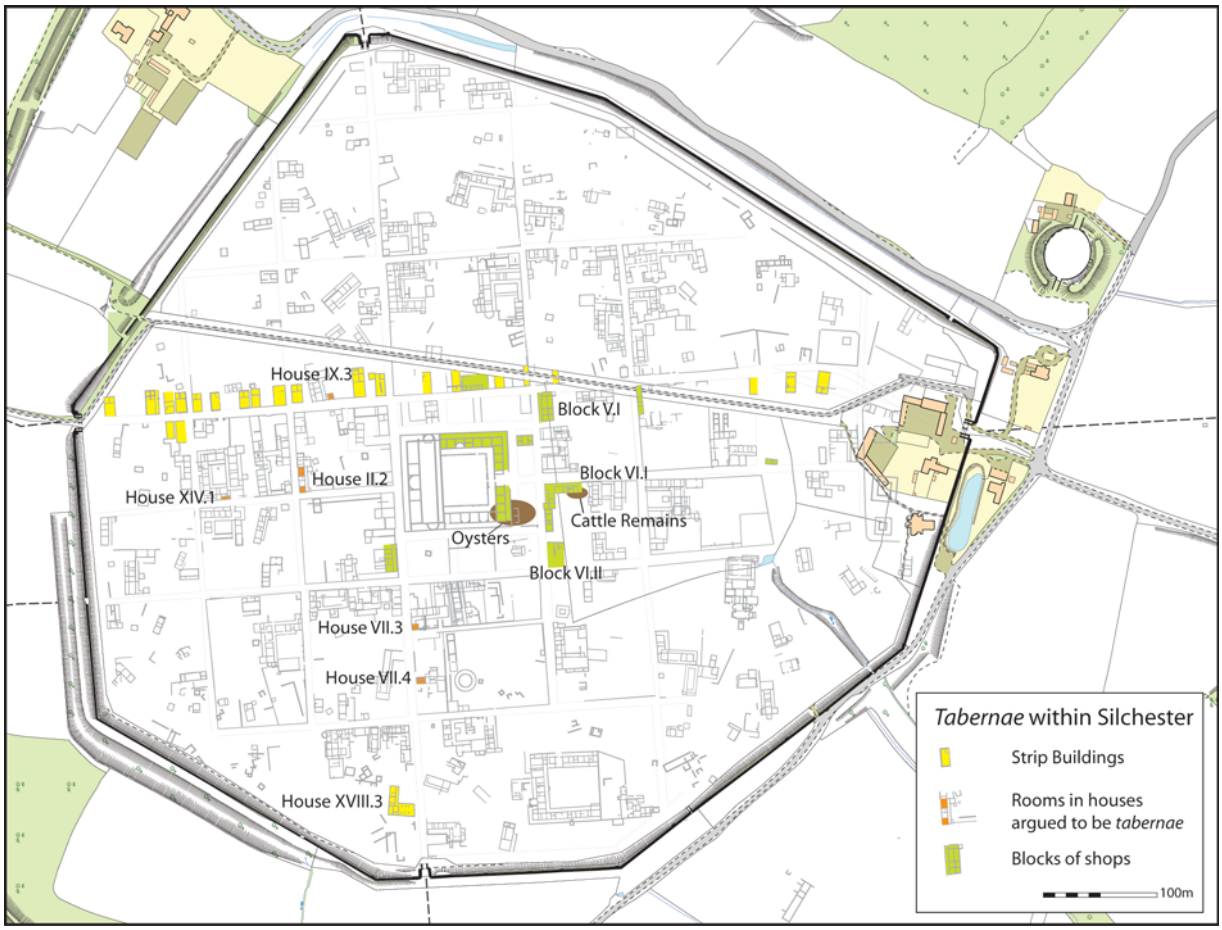

FIG. 15.2. The location of buildings argued to be *tabernae* in yellow across the town.

This type of shop does not appear to be a significant factor in the development of the market at Silchester. There is little evidence that the grander houses in mid- to late Roman Silchester (assuming that is what the Great Plan mainly reveals to us) constructed as part of their design shops for conveying surplus products on to others directly.

Blocks of shops

The final type of building which can be interpreted as possible *tabernae* is represented by the potential multiple shop units or arcades. There are several of these at Silchester. One is along the main east–west road, co-located with all the strip-buildings (Boon 1974, 54, 188). However, the others show a strong degree of clustering around the Forum; indeed the Forum porticoes themselves can be envisaged as offering this service in part. Unlike the strip-buildings, which can be imagined as individually owned, multiple-*taberna* buildings, with the exception of the Forum, represented a specific investment by an individual or *collegium*, constructing shops and presumably renting them out.

The Forum cluster includes several multiple units with covered walkways or porticoes (FIGS 5.28 and 5.32). Block VI.I was in the most prominent location and had ten separate units and a covered walkway running around the corner site (St John Hope 1906, 156). Just to the north was Block V.I which similarly had a fronting portico, but combined both small units and also a larger hall containing a flue for some form of hearth. The Antiquaries at the time interpreted this as being a dyeing house, a running theme throughout their excavations (see p. 421), but whatever its actual purpose a workshop/*taberna* is certainly possible (St John Hope 1906, 150–1). The Antiquaries also claimed the five-room building to the north-east of the Forum entrance

might represent shop units, though in this case on little evidence (Fox and St John Hope 1893a, 562); MacMahon thought they might be lock-up shops precisely because there was otherwise no domestic evidence cited for the buildings (MacMahon 2003, 141).

These arcades were all set back from the Forum leaving a space where the Antiquaries found no significant trace of buildings, suggesting that this might have been an open area that could have been used for livestock sales or other kinds of markets.

Behind the Forum, Boon suggested that the front of the bathhouse on the south-east corner of Insula III was shops with a fronting colonnade. Though with a hypocaust in the corner room, I think it is more likely these rooms were part of the baths suite (Boon 1974, 54).

Only two other buildings are suggested in this category: first, a lone three-room structure, Block XXIX.III, though with no ancillary evidence supporting the interpretation, so not included on the illustration (St John Hope 1903a, 420); this was on the east–west street from the Forum to the Temple complex, a road with a large number of closed façades as many of the insulae were walled. Secondly, a later Roman building from the Insula IX excavations. Late Roman Building 8 had a row of posts along its northern side (FIG. 5.18); MacMahon referred to this as a possible colonnaded arcade, but by the final report it was believed these post-holes encroaching onto the roadway were more likely to be a fence-line, so again it has not been included on the illustration (Fulford *et al.* 2006, 62; MacMahon 2003).

If individuals were investing in constructing and renting out multiple-unit arcades, then this location, in front of the Forum, would have been considered prime real-estate. That this is where we see this happening suggests the development of these values and concepts in the *civitates* of Britain, or at least at Silchester.

The Forum arcades

There is one further range of shops that should also be considered, the Forum itself. From their origin as an open square in the heart of a town, fora attracted stalls and shops, though over time they were architecturally transformed into a specific form of civic architecture as they became political and administrative centres. In Rome, literary evidence traces their development, starting with butchers and cook shops around the original *Forum Romanum* in the fifth century B.C. 'As the dignity of the Forum increased, ordinary traders disappeared and their shops were occupied by dealers in precious metals, gold and silver smiths and moneylenders and were in turn replaced by public buildings' (MacMahon 2003, 8). In Rome the transition to an almost exclusive civic arena only happened around the Augustan era (Wallace-Hadrill 1994, 129–30). Away from Rome in Pompeii, the replacement of *tabernae* with monumental civic structures happened later after the earthquake of A.D. 62 (Zanker 1999, 85). So what is the evidence at Silchester? The Hadrianic-Antonine Period 6 masonry building was entirely monumental with both an interior and exterior portico around three sides. Joyce over-interpreted the function of each room from the material culture he uncovered. He perceived evidence for *tabernae argentariae* and other different types of shops, meat-hooks concentrated in one, and lots of game in another; some of the interpretations are not implausible, even if we have to reject his oyster-bar interpretation caused by a confusion of digging down into a pre-Forum midden. Nonetheless, Boon was still confident enough to suggest some of the rooms were likely to be shops on the east and north range, while others probably were reserved for administration (Joyce 1881b, 353–8; Fox and St John Hope 1893a, 547; Boon 1974, 111). Certainly at other contemporary sites, such as Wroxeter, the forum had traders selling nested sets of samian, mortaria and a collection of Kentish whetstones in its outer porticoes which were preserved there when the building burnt down (Atkinson 1942, 64, 122–4). So a retail function in this period is highly likely.

Moving earlier to examine the Flavian timber building of Period 5, we know nothing of its structure other than the excavated Basilica. However, considering the preceding enigmatic Claudio-Neronian Period 4 building, if this square was a proto-Forum, then its form as a series of individual rooms with a colonnaded walkway in front can also potentially be interpreted as shops (rather than as a military *principia* or military stores; see p. 360). There is a good parallel for this from London.

In early pre-Boudican London adjacent to the gravelled area which was destined to become the forum, a large timber building was constructed *c.* A.D. 50, 56.5 m long, with a series of 10 m-deep rooms, which had a south-facing portico added along its front (168 Fenchurch Street: Philp 1977, 9–16; Marsden 1980, 22–3; 1987, 19–20; Dunwoodie 2004). This sill-beam construction, with mud-brick walls, was interpreted as a series of shops. The characteristics of the rooms varied: one contained the bases of circular storage vessels up to 0.9 m in diameter suggesting storage for foodstuffs; another had fragments of *semesanto* marble from the island of Skyros, one of the earliest imported coloured marbles found in London (possibly decorative inlay from a high-status piece of furniture). A large assemblage of unused samian was also recovered suggesting a pre-consumption site (Dunwoodie 2004, 19, 38). Finally, another room contained traces of imported grain which has been argued by Straker to come from the Mediterranean or Near East (Straker in Marsden 1987, 151–3). No evidence characteristic of domestic life was observed. This building met its demise in the Boudican revolt, whereupon the site was rebuilt and monumentalised as the London Forum.

Dunwoodie highlighted the commercial nature of the building. Given the ongoing debate about whether London had military origins, she recognised that military supply could often be in the hands of private contractors, but saw nothing specifically military in the nature of the assemblage or structure. Indeed any suggestion of pre-Boudican forts in London is looking increasingly tenuous (Wallace 2013). The commercial nature of this range of shops looks secure. It demonstrates significant investment by someone in the construction of a major building to facilitate trade into the newly annexed territory.

In terms of constructional detail it is not dissimilar to the Silchester Period 4 buildings (Fulford and Timby 2000, 37–40). The 0.45 m-square wooden sill beams are similar; the London walls were built of mud-brick, the Silchester walls of clay; both had multiple rooms with larger rooms at either end. The portico is similar. The London rooms were a bit deeper, but in terms of overall size it was 56.5 x 14.8 m versus Silchester's *c.* 55 x 10 m. Not only is the construction comparable but the location next to a gravelled area that is about to become a forum is identical.

The construction of such a building at Silchester, from the Tiberio-Claudian period which it dates to, makes sense with the range of imports rapidly coming into the town: ceramics and foodstuffs from abroad, Purbeck marble from Dorset, oysters from the south coast, salt from the Thames estuary. The non-local traders required premises and Frere and Fulford's reading of *RIB* 69–71 suggests it is most likely that they were organised into a *collegium* early on. In Chichester we also see *collegia* being organised at an early date (as the *collegium fabrorum* of *RIB* 91).

The pattern of someone willing to invest in a range of shops close to where a forum is about to develop is also seen with Frere's Insula XIV shops in *Verulamium* (Frere 1972, 13–23). The range here may not have been quite as regimented as his reconstruction illustration suggested (see the critique by Millett 1990, 70), but it does appear to be of one build, again suggestive of an investment opportunity with units to rent out.

Discussion

In terms of interpreting Silchester, the lack of chronological dynamic remains a problem, but the reinterpretation of the Basilica Period 4 building as an arcade comparable to the Fenchurch Street building shows the development of a commercial hub in the Cogidubnian town on a par with early London, though the latter had the river-borne transport links for commerce that *Calleva* was never to have.

The zonation within Silchester is, however, surprising. The separation of strip-buildings in one area and all the multi-unit shops in another is marked. MacMahon in his discussion of retail location in Romano-British towns highlighted as good positions sites close to the public baths and temples, though in the case of Silchester none of these appears to have had a significant draw upon businesses. He imagined there could have been wooden stalls to sell *ex votos* or trinkets to supplicants within the *temenos* boundary of the polygonal temple. Perhaps this was the case, but the Antiquaries found no direct evidence for it; on the other hand, they were not particularly

good at finding timber structures, and the area of the Insula XXX temples has only been partially explored as it is under St Mary's church and the old Manor House. The suggestion remains possible, but entirely speculative (MacMahon 2003, 14–15, 138).

In terms of taking the topic further, the examination of the distribution of the higher fluxgate gradiometry readings, excluding metallic spikes or dipoles, clearly provides interesting results in relation to the distribution of activities across towns. It would be instructive to analyse the datasets from other greenfield cities which have seen extensive prospection, such as Wroxeter, Caistor St Edmund and *Verulamium*, or indeed within and around major fortresses and extramural settlements like Caerleon; then we can investigate to see whether comparable zonation took place elsewhere.

THE LIVESTOCK MARKET AND TANNERIES

THE TRADE IN LIVESTOCK AND ANIMAL SACRIFICE

If the Forum was the political and administrative centre of the town, the space in front of it, between the impressive entrance to the Hadrianic-Antonine building to the west and the arcade of shops to the east, was an open area. It is easy to imagine this potentially being used for livestock marketing, butchery and quite possibly sacrifice, if that did not take place on an altar in the early Forum or in front of one of the temples.

In the early stages of the development of this area the evidence revealed a significant amount of butchery debris. There were several major deposits here: middens of cattle mandibles, deer antlers and oyster shells (FIG. 15.2). While chronology is vague, we know the oysters and mandibles pre-dated the shops as the deposits ran under them; we have no such check on the deer antlers.

The cattle mandibles formed the largest deposit; they were found in a spread underneath the arcade, Block VI.I Rooms 7–10, and extending east under House VI.1. Lyell calculated the extent of the spread to be *c.* 15.2 x 7.6 x 0.36 m. Since a 0.83 m^2 (9 sq. foot) trench yielded 70 jaws, representing 35 oxen, he calculated there might be 4,865 oxen in total, or less if the deposit thinned at the sides; so a reduced number of 2,520 oxen was his final estimate. Boon considered the deposit dated to the first century A.D. as it was built over by the row of shops; included amongst the bones was an early paste intaglio (St John Hope 1906, 156, 165–7; Boon 1974, 90, 290; Fulford 2001, 207).

The oyster deposit underlay the south-east corner of the Forum, and apparently also extended under the north–south street to its east. It was 0.45–0.60 m thick and at least 15.2–18.3 m wide. It is unclear how early in date this was in relation to the Basilica Periods 1–5, though the Period 6 stone Forum and the road were laid over it (Joyce 1881b, 355; Fox and St John Hope 1893a, 562, 573). Given the discussion above about the chronology of road development, this north–south road is likely to have been constructed fairly early on in the Claudio-Neronian period, but it would be difficult to say if this was a late pre-conquest or a Cogidubnian kingdom deposit.

Also, in the area to the east of the Forum were found 'numerous' large deer antlers, not in pits but on the 'Roman' land surface; unfortunately the report is ambiguous as to the scale of the deposit or any idea of date (Fox and St John Hope 1893a, 572; see also Fulford 2001, 207).

As well as in front of the Forum, butchery waste has been found in other parts of the town: Claudio-Neronian material, including evidence for the skinning of cattle, came from the excavation outside the south-west corner of the Town Wall. The full extent of this deposit was not established but it contained a minimum number of ten cattle. Maltby considered the remains demonstrated the organised butchery of cattle carcases and the redistribution of their meat, horns, skins and marrow.

Elsewhere, outside the Inner Earthwork close to House XXXVI.1, a pit containing 60 horn-cores was discovered together with a coin of Domitian and an enamelled bronze lid from a seal-box (St John Hope 1909a, 480; Fulford 2001, 207). More largely third-century primary butchery waste from cattle was found outside the North Gate (Fulford *et al.* 1997, 131–5).

So, as we would imagine in a large town, butchery took place on a large scale and we can see this happening from an early date. The majority of the taking of lives of animals in the Classical period was ritualised as sacrifices (Deschler-Erb 2010), and this space in front of the

Forum and on the road to the main temple complex for these deposits are therefore apposite. It was a commonplace in early Christian writing to suggest that all meat sold in the market had been sacrificed, with a token part having been offered to the gods; hence the proximity of the temple to related butchery areas and places for sale of the meat. The cattle mandible deposit can give us an indication of the scale of this activity. A large bull weighs over a metric tonne, so imagining individual food portions of around 300 g, Deschler-Erb came up with the figure of a single animal being able to serve 3,000 people (3,000 portions at 300 g = 900 kg, leaving 100 kg for bone and hide) (Deschler-Erb 2010, 57). The cattle at Silchester may have been slightly smaller, so let us give a conservative estimate of each only feeding 2,000 people, in which case our midden represents something of the magnitude of 2,000 x 2,520 or *c.* 5 million servings of around 300 g (the current UK average red meat consumption is much less at 70 g a day, so in reality this could have fed a lot more). There are a significant number of variables in this, but the order of magnitude will be about right.

HIDES AND SKINS

As well as selling and distributing the meat, the other crucial by-product was the hide or skin. In the medieval marketplace butchers would buy the cattle, slaughter them, sell the meat, and sell the hides to the tanneries. In the Roman period we know of some temples involved in a similar practice, passing on for sale the meat and hides of the animals given to it for sacrifice (*lex aedis furfensis c.* 58 B.C., *CIL* I, 756, 1.16).

Tanning in the first century A.D. was going through a revolution. Leather hitherto had been cured, which meant that very little leather from prehistory survives. However, new methods of vegetable tanning, often in north-west Europe with oak bark, meant that leather now lasted longer and also started to survive more readily in the archaeological record (van Driel-Murray 2001, 55; 2008, 485). One of the key drivers for this new kind of leather would have been the huge military demand; this has been highlighted by van Driel-Murray. The army's need, especially while mobile on campaign, was extensive. One estimate suggested that each legion would require 1,500 hides a year just to keep it in shoes, let alone tents and clothing (van Driel-Murray 2001, 63). So the 2,520 oxen represented in the midden would not even have generated enough hides to supply a single legion for a couple of years.

So, army procurement is an aspect we should investigate. It is an issue that crops up repeatedly in the Classical sources in the period from Caesar to Claudius. In 58–55 B.C. L. Calpurnius Piso Caesoninus, after the end of his consulship, was sent by the triumvirs to Macedonia with 'extra-ordinary powers' to requisition as many cattle as were needed to supply hides for armour, shields and horse trappings, which he exacted with much incompetence drawing Cicero's ire (Forbes 1966, 53; Cic., *Pis.* 84). In another example, Drusus upon winning over the Frisii demanded a moderate tribute of cattle hides from them. Unfortunately, after 40 years of relative quiet (or literary silence at any rate), in A.D. 29 Olennius, appointed to govern them, insisted each hide was that of a wild bull, and not one of their smaller domesticated cattle. Tensions grew and soldiers sent to collect the tribute were killed as the Frisians rose up in revolt. They spectacularly defeated the Roman force, regained their independence for a while and proved an embarrassment to Tiberius (Cassius Dio 54.32; Tacitus, *Ann.* 4.72). Certainly planning for the provision of hides for the campaigning army will have been considered in the logistical requirements for the Claudian conquest and Flavian expansion of Britannia.

South-East Britain was already set up to provide hides to the Empire: they were on Strabo's list of exports in the Augustan period (Strabo, *Geog.* 4.5.2), though whether these were raw unprocessed, cured or oak-tanned hides is unknown. It will be interesting to see how early leather starts to appear in the waterlogged well deposits being excavated in Insula IX, to establish how early this switch to the new tanning technology and hence leather survival began.

The interaction between the dynasts of Southern Britain and Rome in the pre-Claudian era will have meant that some of them probably had a fair degree of familiarity with Roman military clothing and equipment (Creighton 2006, 46–69), though the direct evidence for leather in pre-conquest Britain is minimal. There were 17 fragments of leather, possibly from a jerkin,

surviving in the Lexden tumulus (Foster 1986, 139); at Stanway hobnails were found from funerary Enclosure 3, an unurned cremation (DF28) and a pit with pyre debris in it (DF13). However, Crummy took the hobnails to be indicative of a post-conquest date in each case, which, of course, they need not be (Crummy *et al.* 2007, 73, 405–10, 413). Folly Lane had hobnails as well, and dates sometime between the conquest and A.D. 55 (Niblett 1999). Alas burials are not the best location to find waterlogged leather.

Upon the arrival of the Claudian legions and *auxilia* it is likely the Friendly Kingdom of Cogidubnus (or his predecessor if Cogidubnus was not installed yet) was drawn into the supply chain. The legions might have tanned their own sheep and goat skins as these could take only a few weeks, but tanning a cattle hide took over a year, so establishing tanning-pits within temporary bases was unlikely. Yet the knowledge transfer required to create a large-scale tanning supply line where one had either not existed before, or had only been on a small scale, would have required individuals providing the know-how. Immigrant personnel would be needed in support, though doubtless local civilian entrepreneurs could have taken over rapidly. The investment in space required, as we shall see, suggests the involvement of wealthy individuals (van Driel-Murray 2001, 56–8). We actually have some written testimony to the development of the industry in Britain, and its scale, though from further north. One of the *Vindolanda* tablets, from Octavius to his brother Candidus, reports a delivery of 170 hides from *Cataractonium* to the base (Bowman *et al.* 1994, no. 343).

Military involvement in cattle supply to Silchester was suspected in Maltby's work on the animal bone from Claudio-Neronian deposits just outside the south-west corner of the Town Wall. He noted the similarities in the butchery practice between the deposits there and from a late first-century site identified as military from the Aldgate in London (Maltby in Fulford 1984, 27, 199–205). Unfortunately this comparison does not stand up to scrutiny. The Aldgate deposit Maltby referred to as Pit 15 dated to the Flavian to second century. However, the excavator had only assigned a V-shaped ditch in the pre-Boudican layers to any military activity or influence, and even that has subsequently been dismissed and reinterpreted (Chapman and Johnson 1973, 10; Wallace 2013, 277–8), so the military link to this assemblage has disappeared. However, this does not preclude military involvement in supply, but it does not confirm it either. So can we find any direct evidence for the actual process of tanning?

THE TANNING INDUSTRY: WHAT SHOULD WE BE ABLE TO FIND?

The tanning industry was highly polluting so it is often thought that tanneries should be found on the outskirts of towns and close to streams or rivers, though it is clear that was not always the case in the medieval period (Cherry 1991, 296). The process first involved trimming and washing the hides, removing any feet or horns left on them. In the medieval period this was often done in a local stream. The hides would then be de-haired by soaking in lye (potassium hydroxide from wood-ash), urine or a fermenting liquid of bran for several days before scraping off any remaining hair and fat (the use of lime at this stage seems to be a post-medieval innovation). The tanning process would begin with the hides hung vertically in increasingly stronger tanning solutions of water infused with ground oak bark. Each hide would be lifted from one pit to another, perhaps daily, each solution increasing in the concentration of tannins within (these are the 'handler' pits in medieval parlance). Eventually, after a few weeks, the hides would be removed and stacked horizontally, alternately layered with oak chippings, in a new pit for 9–19 months (the 'layaways' pits). Finding multiple pits, and ones large enough to contain complete cattle hides stacked flat, is crucial for the identification of a hide tannery. Finally the hides are lifted out, washed, dried and oiled (Serjeantson 1989, 133–5; Cherry 1991, 296; van Driel-Murray 2001, 61). An ethnographic survey by Douglas found that the pits could be rectangular, round, lined with stone, clay, wood, or any combination thereof, and for hides averaged at 1.8 m diameter (Douglas 1956; cited in Serjeantson 1989, 135). For skins (i.e. from sheep or smaller animals) the whole process was simpler and might only take a few days or weeks; the scale of the operation also meant that mobile buckets or barrels could be used so the archaeological evidence would be significantly harder to find.

THE TANNING INDUSTRY: EXAMPLES

Despite their importance archaeological examples of Roman tanneries are *exceptionally* elusive. In *The Towns of Roman Britain* Wacher's survey could only summon up one potential isolated tanning-pit that he thought more likely related to horn-working (a house in Leicester, InsulaXVI) (Wacher 1995, 349).

Similarly amongst small towns Burnham and Wacher found only one at Alcester (Warwicks.): 'one of the few reliable instances yet found for this industry' (Burnham and Wacher 1990, 95). Unfortunately, the report published later only revealed a solitary waterlogged pit with offcuts of leather, not the multiple large pits a tannery requires, and the report's discussion restricted the interpretation to just leather-working (Mahany 1994, Pit II 21 near structure AA, Microfiche 1:B10). Within London considerable evidence for leather-working has come from the Walbrook; a pegged-out skin for tanning was supposedly found in Bucklersbury House (WFG44: Grimes 1968, 97; Milne 1995, 62), while in the Upper Walbrook at London Wall (LOW88), wood-lined tanks could relate to tanning, though they might also be for fulling or dyeing. There are few published details. A survey and dismissal of some of the other claims of tanneries can be found in van Driel-Murray (2011, 69–70).

Perhaps the problem with finding tanneries in towns is that because of their polluting nature, most of the tanneries were on the outskirts in the peripheral areas, away from the zones which have received most attention.

Out in rural Britain the problem of identification is no easier. Lullingstone Roman Villa had a kitchen area which it has been argued was converted into a tannery. One pit was rectangular, cut into the chalk and lined with clay, and curiously had lots of leather shoes impressed into the lining; it contained lots of fruit seeds. It *could* be a tannery but finds of made leather artefacts in a pit would be unlikely and the solitary pit implies small-scale activity at best (Meates 1979, 105–8).

Across in northern Europe examples are also hard to find. Closest is an example from Tongeren (Belgium), where at the Elisabethwal site a possible Flavian tannery was found evidenced by a well and multiple pits lined with clay or wood. Many were sub-rectangular and up to 2 m square, while another was 4.3 x 4.6 m (Vanderhoeven and Ervynck 2007). In *Augusta Raurica* (Switzerland) in Insula 31 a complex was found containing a slaughterhouse, butchery, tannery and a bone-working and horn-core workshop, with smokehouses nearby. Also on the edge of town on the map, tanning-pits are marked along Westtorstrasse (Deschler-Erb 2005b, 71; 2005a, 33–4). The dark organic remains in the pits were taken to be indicative of vegetable tanning. At *Vitudurum* (Switzerland) a strip-building was found with three barrels sunk into the floor, perhaps too small for large hides, but possible for smaller skins (Pauli-Gabi *et al.* 2002, 18–21); extensive leather-working is known to have taken place in the town. Possible structural evidence has also been found at other Swiss sites: Sursee, Käppelimatt and Zurzach, Kastell-Vicus (Deschler-Erb 2005a, 33). The easiest way identification takes place is when the tanning-pits are lined with timber, such as at *Aquincum* in Pannonia (Fitz 1980, 325); while in the Mediterranean some are built in masonry (such as the *officina coriariorum,* Pompeii Regio I.5.2).

THE TANNING INDUSTRY AT SILCHESTER: EVIDENCE WITHIN THE TOWN

House XXXIV.1 was the most likely building to have been associated with tanning in the town (Interior 10, FIG. 5.32). It had a water source fed to it from the other side of the road, feeding a submerged water butt, and then forming an open channel. It was also in an insula adjacent to the only spring within the town. To the south of the building, in a large yard, was a large trough, 19 x 1–1.5 m, imagined as being for steeping. The presence of skulls without their jaw bones made the Antiquaries think of tanning, but they noted that there was no obvious tanning-pit in the yard, and the geophysics have not given any strong evidence for a significant number of pits. Space for tanning skins here is certainly possible, hides less likely (St John Hope 1907a, 446–9; Boon 1974, 291).

The second candidate was House XIX.2, where there was again an enclosed large yard on the southern side, also interpreted by the Antiquaries as a tannery because of the presence of water-tanks and one large pit they identified as a 'tanning-pit' (Interior 12, FIG. 5.38). However, they

also admitted the scale would be so small it could only be for goat and sheep skins (St John Hope and Fox 1899a, 236–7).

So within the town while some skins might have been tanned, there was nothing evident on the scale necessary for processing hides.

THE TANNING INDUSTRY AT SILCHESTER: EVIDENCE OUTSIDE THE TOWN

Off the plateau to the south-west of the town, beneath the earthworks of Rampier Copse, there is a small brook dividing LP 2900. According to the soil survey maps, the plateau gravels and Bagshot formation sand give way to London Clay down here. The geophysical survey also shows an unusual response of mottling here, suggestive of a large number of pits, 4–8 m in diameter, down by the stream. The pits continue for at least 700 m following the brook, though the field on the southern side was not geophysically surveyed (FIGS 6.60–61, 6.69–70; Exteriors 20 and 23; LP 2900, 5673 and 7468). These features are certainly not natural. Clay-pits are one possibility, but the multiplicity of small pits would be a curious method of extraction. The fields hereabouts have been fieldwalked and no evidence has been forthcoming of kilns or tile clamps, so tannery pits offer another possibility.

Tanning-pits cut into well-draining soils, such as gravels and sand, were often lined with timber to reduce seepage, for example the pits at the fourteenth-century tannery at St Andrews Castlecliffe, where the sharp edges of the *c.* 2 x 3 m pits suggested plank-linings had been removed just before the pits were filled in (Lewis 1996, 615–22). At Silchester, cut directly into London clay close to the water table, seepage would have been minimised. The pits appear to vary a bit in size, so some of these could be the smaller vertical handling pits and others the larger longer-term horizontal layering pits. Their proximity would allow for easy handling moving from one pit to another and easy access to the stream for washing. The location is well away from the town to prevent contamination of the water source, and there is also a road running down the slope to it from the town making for easy access. The final stage of the process, drying and oiling the hide, would have required shelter, though that does not necessarily require masonry buildings. Hides could have been washed and carted up to the town to dry there, wherever the curriers or leather-workers were. Within the town in the metal-worker hoard were found three shoe-maker's feet, needles and awls (Evans 1894, 142; Boon 1974, 289–90).

Can this kind of evidence be paralleled at any other Roman towns where extensive geophysics have taken place? Perhaps a parallel can be found in the results from Wroxeter where the survey indicated a large number of pits to the north-west of the town, along either side of the Bell Brook. This was an area the project team identified with water-based industries, such as tanning or fulling, though there the density and size of the pits are not as extensive as at Silchester (White *et al.* 2013, 189–90).

OTHER NECESSARY INGREDIENTS FOR TANNING

Various other ingredients are required for there to be a tannery at Silchester. Large quantities of finely-ground oak bark were required. Certainly much of the waterlogged wood identified has been of oak. Also the charcoal evidence from the Basilica site shows oak was the dominant taxon from all periods. The pollen also suggested that the Late Iron Age/Early Roman woodland clearance that did take place saw an increase in grassland suggestive of the presence of hay meadow and a cattle-based economy, so the environmental factors were certainly right for a large-scale tannery (Fulford and Timby 2000, 522, 533).

Another ingredient required by tanneries and fullers was urine, and within the town there were certainly the people and production facilities. An often repeated idea was that in Roman towns much might be collected through amphorae positioned as public urinals around towns. However, the literary and archaeological basis of this has been recently critiqued by Flohr and Wilson (Flohr and Wilson 2011), concluding that owing to the purity of collection necessary, this could not have been the method used, though alas leaving us none the wiser as to what the actual method was.

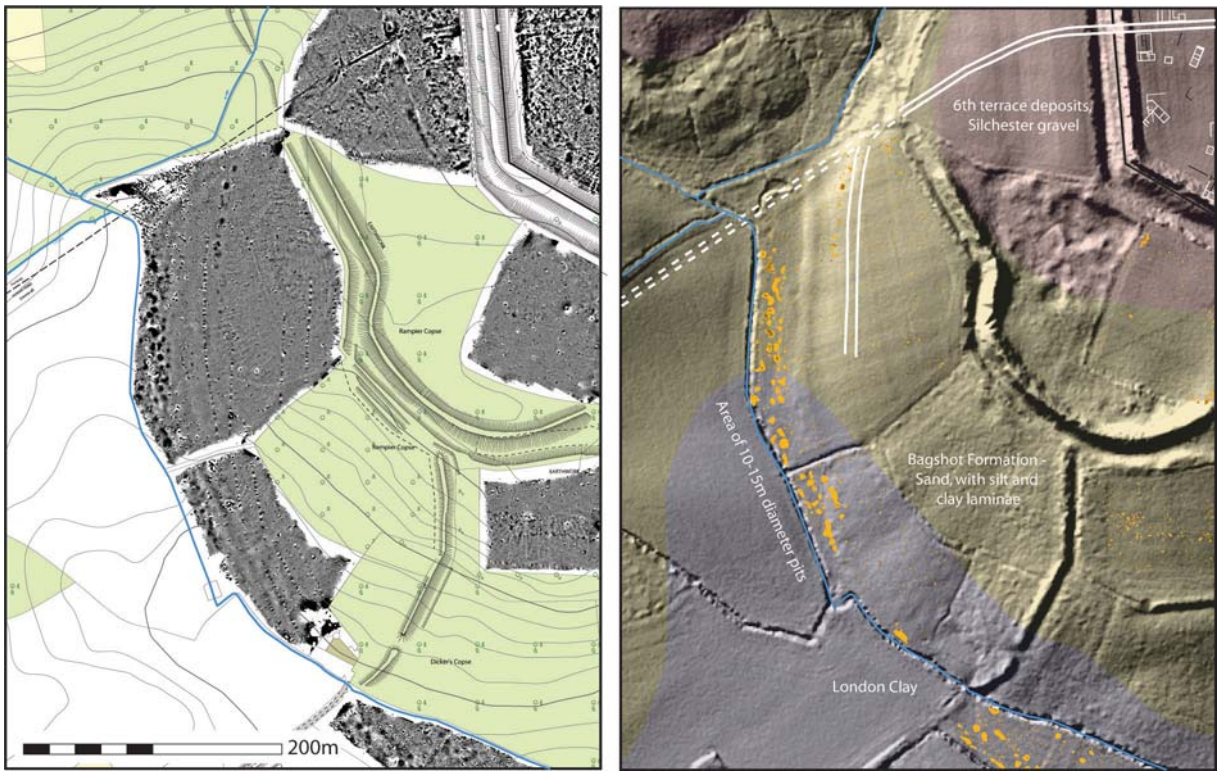

FIG. 15.3. Pits to the south-west of the Town Wall in relation to the London Clay and valley – possible tanning-pits.

Another potential ingredient in leather production, though one where there were plenty of alternatives, was mulberry leaves, which Pliny described as being used in the de-hairing stage of the process along with urine (Pliny, *NH* 23.140). Reid identified Black mulberry (*morus nigra*) from a seed discovered in 1902 when they were excavating the south-east part of Silchester (Insulae XXIX–XXXII) (St John Hope 1907a, 449). It has also been found in London and York. It is, however, generally assumed to have been imported as an elite food rather than grown locally, but if that were the case it is curious it is only found on urban sites and not villas or military sites (van der Veen *et al.* 2008, 17; Livarda 2008, 81). The tree was already known in Belgium by the Late Bronze Age (Gelorini and Bourgeis 2005), so it is worth continuing to look out for the pollen to see if there was an attempt to import this aspect of the new tanning technology as well in the Early Roman period, though other liquids for de-hairing were available such as lye or fermented bran.

TANNERIES: A CONCLUSION

Overall about 80–100 pits can be seen in the surveyed area, which can probably be doubled if there were a comparable number on the other side of the brook which has not been geophysically surveyed. This number of pits is probably not unreasonable. If one legion required 1,500 hides a year just for shoes, that would require 75–100 layering pits in operation concurrently, each containing 15–20 hides. If tents, clothing and civilian needs are added, then the scale of the industry would need to be increased accordingly.

Excavation is needed to test the hypothesis. While the morphology of the pits themselves might not be particularly diagnostic, evidence is beginning to accumulate for the kind of plant remains and invertebrates which might be associated with hides and tanning-pits: carrion beetles, flies, small fragments of bark sclereids, all the kind of things which a simple clay extraction pit would not particularly attract (Hall and Kenward 2011).

So far, the notion that these pits at Silchester and the ones at Wroxeter are tanneries is just a

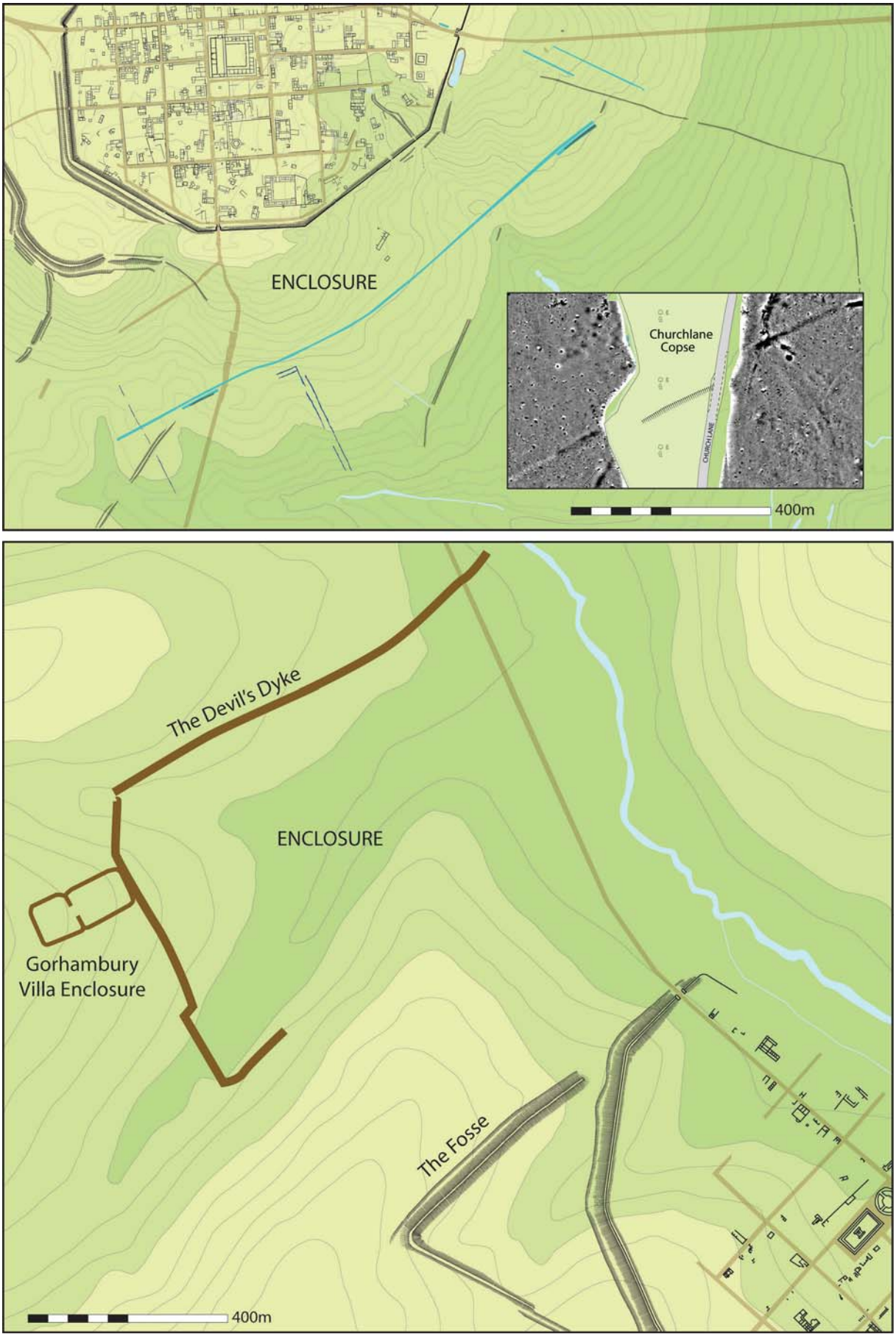

FIG. 15.4. The potential stock enclosures at Silchester and *Verulamium*.

hypothesis, but the scale of production that must have existed within Britain is such that both are of the order of magnitude that we should be expecting for this most elusive industry. Some small-scale investigative work at either site could establish whether this interpretation is plausible.

LIVESTOCK AND ENCLOSURES

Upon the Roman conquest cattle and hides were clearly needed on a large scale, not only for the army but also for the new towns developing such as Silchester itself and nearby London. The Roman roads facilitated the long-distance movement of cattle with their hard surfaces for carts and marching soldiers, complemented by green lanes on either side within the *agger* ditches for livestock. The demand from the city of London in the medieval period drew cattle down from the Highlands, so it is not unlikely that in the Roman period there too was large-scale movement generated by the new order. As discussed earlier, to the south-east of the town is a large possible enclosure which appears to have the ditch on the inside rather than the outside (see pp. 320–2). Its size and scale are very similar to the deer park pale of 1204 which overlaps it.

Another large enclosure close to a Roman town, where the ditch is on the inside, is known from *Verulamium*. This was constructed in the very Late Iron Age, comprising the Devil's Ditch, New Dyke and White Dyke. The enclosure was adjacent to the smaller Gorhambury enclosure, soon to house a grand Roman villa. It also had the potential to act as a large stock enclosure down by the meadow of the River Ver, controlling the movement of livestock coming towards the town from the north down the valley and later Ermine Street (Neal 1990, 20; Niblett and Thompson 2005, 31).

Fishbourne had a different kind of stock enclosure; Sykes (2006) has demonstrated that breeding pairs of fallow deer were imported from abroad and introduced into the area in the later first century, so presumably this was a deer park for elite hunting, to which can be added the use of the Isle of Thanet as a game reserve (Sykes *et al.* 2011). All this management of wild and exotic animals was part of a new discourse about nature as Britain became part of the Roman world (Allen and Sykes 2011).

At Silchester, the northern part of the area was encroached upon in the later Roman period by the inhumation cemetery. However, if it was a deer park or other form of livestock enclosure, it would be interesting to investigate the large rectangular building which appears as a cropmark and the pottery scatter within the area (see p. 254).

CERAMIC PRODUCTION

The geophysical survey did not reveal any additional kiln sites, but the combination of datasets and some additional detail from the geophysical survey of the known sites does provide a useful opportunity to pull together existing knowledge.

THE ANTIQUARIES' POTTERY KILNS NORTH-EAST OF THE TOWN (LATER FLAVIAN-TRAJANIC)

In 1906 'a tenant of a field on the north-east side of the city' hit some remains which an excavation by Mill Stephenson and Challenor Smith revealed to be two small kilns (St John Hope and Stephenson 1910, 327–9). Unfortunately, there were no further locational details provided, but the report by the excavators which said they were to the 'north-east' should surely be preferred to May's later reference to them being just outside the North Gate, which is categorically not north-east. It was this later positioning, however, that was picked up on by Boon, though he did not cite May, and then subsequently became incorporated into the Historic Environment Record (May 1916a, 192; Boon 1974, 280). The assemblage was summarised by May (1916b, 192–5), and the kiln products were assigned by Timby to the later Flavian and early Trajanic period (Fulford 1989c, 89).

THE POTTERY KILNS NEAR THE AMPHITHEATRE (CLAUDIO-NERONIAN)

A kiln must have existed either under or very close to where the Amphitheatre was constructed. Within the V-shaped ditch (F216) which the west stadium sealed were 319 sherds of wasters weighing 5.7 kg, which made up 43 per cent or the assemblage by weight. Timby assigned the kiln furniture and wares to the Claudian or Claudio-Neronian period, and noted that the work appeared to have been done by an inexperienced potter on a fast wheel (Fulford 1989c, 88–93). It was also noted that the fabric was very rare amongst the large assemblage from the Basilica site, so the kiln could not have had an extensive output.

Corney's fieldwalking also noted kiln debris immediately west of the Amphitheatre, associated with first-century pottery which may relate to a kiln site. This was presumably within LP 3862 where the V-shaped ditch can be seen continuing (Exterior 14; FIG. 6.43 [9]), and is adjacent to a number of high magnetic anomalies which are directly adjacent to a small 35 x 30 m trapezoidal enclosure. This area has been used in the twentieth century for poultry sheds, so there is the possibility that the features are modern, but the congruence makes their interpretation as kilns highly possible. I concur with Corney that they are unlikely to be the ones excavated by the Antiquaries who would have then described them as being next to the Amphitheatre rather than just to the north-east of the town (Corney 1984, 246; see also Grew *et al.* 1980, 394–5).

TILE PRODUCTION: BACKGROUND

A survey of the analysis of tiles in the excavations can be found above (pp. 277–8). Here, the focus is on the location of the production sites.

Evidence for the number of supply sites we should expect to find comes from the plurality of the size and fabrics of the tiles. Green noted in Fulford's excavations of the South and South-East Gates the difference in size of the tiles at each (Fulford 1984, 58, 198). As fabric analysis became more routine, Timby noted that four of the seven tile fabrics found at Lowbury Romano-Celtic temple, 23 km to the north-east, were also found at Silchester, suggesting some large-scale producers involved in the area (Fulford and Rippon 1994, 201). Warry's large-scale work on the topic observed that the best-known tilery fabric from Little London, based on Bracklesham clay beds, only constituted a small proportion of the overall assemblage from Silchester, the more typical tile there being from closer local Reading and London clay beds (Warry 2012, 51).

Warry's work also estimated the overall production requirements for the town. He concluded that it probably had its own local tile-works for roof-tiles, flat-tiles and flue-tiles. 'The number of buildings in the town suggests that at least two kilns were needed to produce the fluctuating demand for roof tiles, with at least one further kiln for flat tiles, whilst the metrological analysis supports the proposition that there were four producers during the 1st-2nd c.' (Warry 2012, 74). Later on there was more of a shift to the use of stone tiles for roofs (Warry 2012, 49).

Hitherto, only two tileries are known: one from Little London to the south, and indirect evidence of wasters from immediately north-east of the town. Evidence for the latter can now be expanded upon, and evidence for the excavation of the London clays adjacent to the site can also be cited.

TILE KILNS AT LITTLE LONDON (NERONIAN TO MID- TO LATE SECOND CENTURY)

Deep ploughing near Little London in 1925 produced a large number of vitrified wasters of brick and tile which were investigated by Karslake. Some were as deep as 2.7 m below the surface. Amongst the fragments he found one with a Neronian brick stamp 'NER.CL.CAE.AUG.GR', similar, but not identical, to that discovered in 1903 near the Public Baths. Close by he also identified a depression about 300 x 30 m and 1.2–1.5 m deep which he contended was where the clay came from (FIG. 10.1; Karslake 1926; see also Taylor and Collingwood 1925, 243, 250). Boon originally cast doubt on Karslake's find and the tile (Boon 1974, 278–9), but Greenaway (1981) has subsequently located it in the British Museum (Acc. No. 1925, 12-12.). Fulford subsequently found more of these tiles in the Basilica excavation, though from different dies

again (Fulford and Timby 2000, 119). Lowther examined the material from the Little London site in Basingstoke Museum that had been collected by Barton fieldwalking the site in 1957. He noted that as well as brick and tile wasters it included a waster flue-tile with roller-stamp diamond-lattice decoration (Lowther Group 5 No. 39) of a type he had already found amongst the Silchester collection (Lowther 1948) which Boon noted dated from A.D. 80 to the mid- to late second century (Boon 1974, 101, 278).

Warry observed how some of its products were so specialised they must have been for a regional market rather than just Silchester alone, such as the flue-tiles (Warry 2012, 74).

TILE KILNS ADJACENT TO SILCHESTER

Immediately adjacent to the town on the north-east side wasters were discovered in LP 2673 when the water main was cut through. A mass of poorly-fired tiles above a charcoal-rich layer, likely to be the remains of a tile clamp, was found close to a series of pits and enclosure ditches (590–606 m along) (Fulford *et al.* 1997, 161).

Logistical estimations worked out by Warry suggested that were a kiln used, firing chambers might be 3 x 2 m containing enough room for up to 1,440 *tegulae* or else a mixed load. However, the layout space prior to the firing for the tiles to harden would cover 168 m^2 (*c.* 13 x 13 m). Animal impressions are legion on the tiles from Silchester suggesting this probably took place outdoors rather than in an enclosed building (Warry 2012, 52–4). If we examine the geophysics of the surrounding area, it is clear that there is a series of small enclosures with lots of features within them, some with fairly high readings. This complex is highly likely to be a large tilery (Exteriors 10 and 14; FIGS 6.31 [8] and 6.43 [10]). The clay could easily come from just off the terrace in the north, in a copse now called Collin's Copse and auspiciously Kiln Yard Copse, suggesting modern workings in the vicinity as well. The section in the water main watching-brief showed the possible clamp to be sealed by a layer of yellow clay, which was probably dumped over it when the Town Ditch was excavated, reducing the site's visibility from Corney's fieldwalking.

OTHER CLAY EXTRACTION NEAR SILCHESTER

The other location where clay extraction took place close to the town was on the south-west side where a large number of medium-sized pits were cut into the clay close to the brook (FIGS 6.61 and 6.70). This is discussed above in the section on potential tanneries (p. 416). It is likely that there would be tileries here where clay extraction was taking place, though at present there is no positive evidence. There are no enclosures or wasters noted, and no geophysical signatures of kilns have been observed. However, the southern side of the brook was not surveyed, and there are large areas of woodland around that could be concealing evidence.

THE RISE AND FALL OF THE SILCHESTER DYEING INDUSTRY

One of the running themes of the Antiquaries' excavations was that Silchester was the centre of a major dyeing industry, with a large proportion of space on the western side of the town devoted to hearths heating vats of dye-ladened cloth. The idea got short shrift from Boon who neglected to have a section on dyeing at all in the part of his book on industries, crafts and trades at Silchester; instead he considered brewing a far more likely explanation for some of the hearths (Boon 1974, 286). However, the notion does sometimes recur uncritically in the secondary literature (MacMahon 2003, 62), so it is worth addressing head on and contextualising where the idea came from, and laying it firmly to rest.

THE BEGINNINGS OF AN IDEA

The notion began in 1894, the fifth season, while excavating Insulae X and XI. Unlike the earlier insulae, these had no obvious domestic buildings within them, so Fox considered the area

must have been given up for industry. As well as T-shaped furnaces, they found the bases of circular ones with a flue of what was then a distinctive type, but which Wacher and others now would consider 'suitable for a wider variety of purposes, such as brewing, baking or cooking' (Wacher 1995, 205). They rejected the idea of bakeries (not enough querns) and potters' kilns (not enough wasters). The circular cakes of metallic substance found in Insulae IX and XI brought metal-working to mind, though for some reason they rejected this idea as well. That the heat had anything to do with tanning or fulling was dismissed because of the lack of a water supply. In the end they decided that the circular furnaces were the bases of large dyeing vats drawing upon analogies from House VII.2.11 in Pompeii, the *officina tintoria di Ubonius*, which was undoubtedly for dyeing as shown by graffiti and its nine lead kettles set in masonry (Fox 1895, 460–1). The Antiquaries' report went into a long excursus on the different plants that could be used to make dyes and how that was done. The Silchester circular furnaces ranged from 0.66 to 0.84 m in diameter, the majority being around 0.76 m; the Pompeii ones were 0.84 m. Nonetheless, in Fox's writings his conviction meant this became: 'in diameter they coincide even to an inch' (Fox 1899b, 84). Other elements of the argument were decidedly inconsistent: while the absence of water had led them to exclude fulling or tanning, he subsequently described the area as 'riddled with water pits and wells' (Fox 1899b, 84). The querns, which occurred in quantities no different to elsewhere, were re-imagined as being used to grind up the plants to give up their colouring matter (Fox 1895, 464). The idea had taken a firm hold. The following season Insula XV joined the list of those they now thought were devoted to this industry (Insulae IX, X, XI, XII and XIII) (St John Hope 1897a, 413).

In pursuing this idea, Fox was building upon his earlier interpretations of the 1860s excavations at Chedworth Roman Villa (Glos.). Here, the addition of Room XXIV, which contained a channelled hypocaust with a semi-octagonal end, was associated not with another bathhouse but with a fulling complex and dye works (Fox 1887, 331), with his *idée fixe* gradually taking over the interpretation of nearby rooms as well as drying halls and other functions.

WILLIAM MORRIS' INFLUENCE

Inspiring them was another Fellow of the Society of Antiquaries, William Morris, key proponent of the Arts and Crafts movement. Morris had begun designing printed textiles in 1873 and engaged in extensive practical and historical research to develop his applied knowledge of dye processes and chemistry (Davis 1995). His studies even took him back to Pliny, though he focused mainly on sixteenth- and seventeenth-century French works (Morris 1889). At some point Fox and St John Hope had consulted with him, and Morris had not only afforded them long discussions about the processes involved, but also demonstrated them in operation (Fox 1895, 466 note), even though by this stage Morris' health was failing and he was to die the following year. This certainly explains the otherwise out-of-character, over-long footnotes on the details of the preparation of dyes that appeared in that season's report.

PURSUING THE IDEA

During each successive season new features were recruited to serve the interpretation. While in Insulae X and XI the absence of domestic buildings had indicated the area must have an industrial purpose, the following year the presence of heating in buildings was interpreted not as evidence of domesticity but of drying rooms for cloth (Block XIII.II: St John Hope and Fox 1896, 217). Soon even grander buildings with architectural pretentions were brought into the fold. Two small buildings, Blocks XVII.II and XVI.IV, each with a room and hypocaust, were considered as also related to the dyeing industry, the buildings being explained as for cloth drying rather than any form of human comfort (St John Hope and Fox 1898a, 109). Finally Block V.1, the potential arcade with a hall in front of the Forum, was excavated. Within the main hall was a substantive, 6.1 x 2.3 m, structure with flues (Goodchild 1943) which led to this being interpreted as a dyeing house, with Fox considering that Room 4, which contained a mosaic, could be the dyer's office.

What would now be described as a T-shaped corn-drying oven in Block XXXIII.III was also pressed into service: 'the arrangement can have had nothing to do with any metallurgical process, but could well have sustained a long boiler or vat for dyeing stuffs of some such purpose, and so would take its place with the remains of the many other furnaces found within the town' (St John Hope and Fox 1905a, 336).

This notion persisted even though scientific analysis by Gowland of two pieces of metallic debris from a hearth in the area that had originally generated the idea suggested the remains related to silver refining (Gowland 1900); the fragments probably came from Block XI.I, but the report was not terribly specific.

The idea never waned, even though the arguments supporting it became wholly inconsistent and self-supporting. Nowadays the T-shaped flue would conventionally be referred to as a corn-drying oven, with the caveat that it might be used for malting in brewing as well; while the ovens with a circular base and flue would now be seen as multi-purpose ovens for corn-drying, malting and heating.

CONCLUSION

In this chapter a number of themes have been discussed which relate to trade and industry. The development of retail premises is an interesting new angle on the development of the Forum at the heart of the town, and the oyster and butchery waste deposits in front of this area correlate well with this later evidence. In the construction of these new shops and in the importation of oysters we see new retail technologies being invested in and exploited on a large scale. Britain took to harvesting oyster beds to such an extent that by the Flavian era the export of its oysters and pearls was famous (Pliny, *NH* 9.169, 32.62; Juvenal 4.141; Tacitus, *Agric.* 12).

Tanning was another major technological revolution. The excursus on the tanning industry discussed not only knowledge transfer in the conquest period, but the scale of operation that was necessary to provide for the Roman army from both within the province and abroad. Large-scale tanneries must have existed here and at other towns, and the evidence to the south-west of the Silchester provides a plausible candidate for this, alongside comparable features at Wroxeter.

Amongst other industries outside the Town Walls there would have been tileries and pottery kilns. Some have been found, and the geophysical survey gives clear form to the tileries to the north-east in their own small enclosures near the Amphitheatre. Close by, kilns existed as well, but alas not all of them can be traced.

Finally the Antiquaries' obsession with finding evidence for dyeworks everywhere is a cautionary tale about how a speculative idea can take hold and be difficult to let go.

CHAPTER 16

PUBLIC ENTERTAINMENT

A PECULIARLY CIRCULAR AMPHITHEATRE

One of the remarkable aspects of Silchester is how early public spectacle and entertainment were established here. The Amphitheatre was constructed around A.D. 55–77, so probably within the era of the Cogidubnian kingdom. This makes it one of the earliest examples in Britain, alongside London *c.* A.D. 74 and Caerleon *c.* A.D. 80; Chester was perhaps a decade later, while Dorchester (Dorset) might be mid-Flavian, but could also be earlier (Wilmott 2008; 2009; Bradley 1976, 74–6; Bateman *et al.* 2008).

One curiosity about the early Timber Amphitheatre is its circular nature, so different from many elliptical examples (later rebuilds made it more elliptical as time went on). In his broad survey of these structures, Wilmott saw a significant division between the legionary constructions, with monumental exterior stone walls, and their civilian counterparts. For him, the amphitheatres were places in which the soldiers saw military virtue enacted, observing 'the ability to fight well, and die well' (Wilmott 2009, 141). These were proper amphitheatres reflecting the attitudes and tastes of the legionaries who were, after all, the largest community of Roman citizens in the early province. London was similar, with its mixed metropolitan population, so it was not surprising that it, too, had an exterior stone-built wall. By way of contrast, he saw the simple circular construction at Silchester, built by the inhabitants of this 'precocious' town, as showing that they understood the nature and purpose of the building, but did not have enough knowledge to build it in the correct shape. 'It reinforces the notion that this was a rapid construction, using well understood communal methods, by a society anxious to adopt the appearance of Roman ways, but not yet fully equipped to do so' (Wilmott 2009, 151).

Rather than educational deficiency, Fulford had constructed a different argument for the population of Silchester, one based on alternative values and interests that might exist within this particular community. He associated the circular shape with animal training arenas, noting its similarity to the much smaller *gyrus* at the Lunt fort (Baginton, Warwicks.), and the predominance of horse bones amongst the faunal assemblage, though these mainly occurred in the later phases (Fulford 1989c, 187). He envisaged riding displays, animal hunts (*venationes*) and beast fighting as plausible entertainments as well as the traditional games (*munera*) and executions, particularly as ways of channelling energies 'in a diverting and constructive way during the post-conquest period in Britain' (Fulford 1989c, 189). The horse associations with the Amphitheatre made Fulford wonder if it did not serve as an alternative to a circus, without the chariots. He was musing this at a date when no circuses had hitherto been securely identified in Britain. In a review Bomgardner picked up on the theme, mentioning various types of gladiator who used horses, including *equites* fighting from horseback, and *essedarii* fighting each other from Celtic war-chariots. The latter sport was thought to have been introduced to Rome by Julius Caesar shortly after his conquest of Britain. He considered both might have formed part of the programme in Silchester's Amphitheatre, even though the space available was small (Bomgardner 1991; for evidence of *essedarii* in Gaul see Bomgardner 2000, 115). Here debate ended.

A THEATRE OR A CIRCUS?

There was no obvious sign of a theatre or of a circus outside the Town Wall. The curious isolated building built on the slope to the south-east of the town in LP 3000 (Exterior 22, FIGS 6.65-

67; see p. 254) has occasionally been mooted as a possible theatre, perhaps making use of the gentle slope, but no semi-circular aspect to the building has ever been visible in cropmarks or the geophysics. Alas this structure is off the gravel ridge and onto the clay, so did not show up particularly well in the fluxgate gradiometry, and the aerated ploughed soil was not suitable for additional resistance survey work at the time; but the complex is certainly worth further study. As for a circus none had been found in Britain at that stage.

As Humphrey (1984) noted in his magisterial survey of circuses in the Empire, a chariot race did not necessarily need much infrastructure, though the effort was thought worth expending on them elsewhere in the Empire. However, during the digitisation of the geophysics an intriguing possibility emerged. To the north-west of the walled town, just outside the Outer Earthwork, there were two major parcels of land surveyed where there did not appear to be anything much showing, despite being close to the town (LP 3700 and 6200, Exteriors 5, 8 and 9). This in itself was curious; paddocks at least might have been expected. Each parcel was digitised and interpreted separately. Both had several long linears running across the entire fields, but these were assumed at first to be old field-boundaries or drainage ditches. However, on comparing the results with earlier cartography they did not correlate with any earlier field-boundaries. Also the linears in each field were perfectly aligned with each other, despite being bisected by a sunken trackway cutting downhill from Wall Lane through Stone Hill Copse to the north, which was probably later medieval in origin. This means these linears were in all probability Roman or early medieval.

The three lines mark out a broad strip at least 360 m long and perhaps 95 m wide on the edge of the gravel terrace, with the eastern end starting just off the main road north to Dorchester-on-Thames, and the other end stopping just before the ground level dipped away (FIG. 16.1). The gravel terrace is in the main flat, but dipping in one area as the terrace falls away. And the area is largely devoid of any other features. Could this be a circus?

CHARIOTS AND CIRCUSES IN BRITAIN

The existence of chariots and chariot fighting was a major literary theme in descriptions of warfare in Britain; Caesar repeatedly mentioned them (*BG* 4.24, 32, 33; 5.9, 15–17, 19). While there will be elements of literary *topoi* in these descriptions of Britain, Cunliffe has pointed to the evidence from fixtures and fittings for a warrior elite, well-trained in the art of chariot warfare (Cunliffe 1995, 33); Cassivellaunus, even after having disbanded most of his forces, supposedly had 4,000 of them left (*BG* 5.19). It was probably after these encounters that *essedarii* became a feature of gladiatorial shows in Rome, and then later in other cities, such as Pompeii, where they appear in graffiti (Bomgardner 1991; 2000, 70). In the Augustan era Strabo (4.5.2) reminded the Roman audience that chariots were a feature of Britain, just as they had been in parts of Gaul. This notion was reinforced a generation or two later by tales from the Claudian invasion, when Plautius was reported to have sent a German detachment across a river to wound horses that were meant to pull chariots (Dio 60.20). *Topoi* of this method of warfare were repeated in descriptions of the Boudican revolt (Dio 62.8, Tacitus, *Ann.* 14.35) and the *Mons Graupius* engagement (Tacitus, *Agric.* 36). In this context it would be extraordinary if the tradition of chariot riding, let alone racing, were not to have been embraced and continued as an outlet of energy and demonstration of prowess in the Cogidubnian kingdom, let alone the post-disarmament phase of Roman submission.

Archaeologically Cunliffe reviewed vehicle fittings and horse gear in Central-Southern England from the Late Iron Age. He viewed this as a critical period in the development of chariots and chariot warfare. He saw the immediate pre-Caesarean period as one of stress in Central-Southern England, where the technology of chariot warfare might have been honed and developed. Supporting this idea, he cited the deposits of chariot fittings from Bury Hill and Gussage All Saints (Cunliffe 1995). Silchester also has traces of comparable activity. A large number of ceramic investment moulds and linch-pins come from Silchester itself, all found on the Basilica site in the backfill of a Period 2 burial (F1297) together with Tiberio-Claudian samian from Lezoux (Fulford and Timby 2000, 31–2, 406–13). Additional potentially chariot-

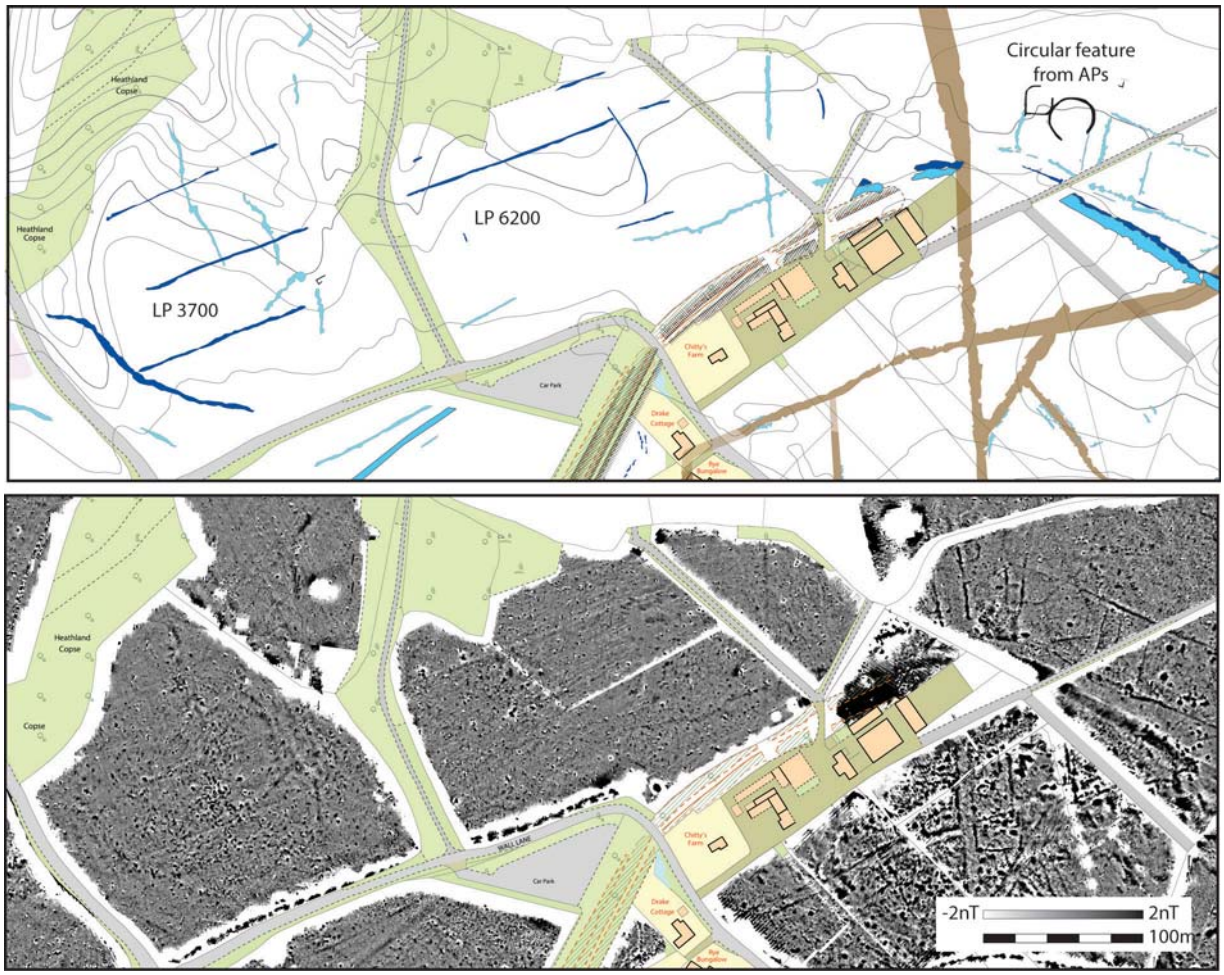

FIG. 16.1. Fluxgate Gradiometry results and interpretation to the north-west of the city showing the major linear features.

related finds have come from Boon's excavations hunting for the Inner Earthwork, where he found a linch-pin under the Roman street levels in Trench K (Boon 1969, 10, 50–1). Silchester in the Late Iron Age was almost certainly a centre of equestrian prowess if it was the residence of the likes of Commios, his descendants and entourage, and this would have included charioteering judging by descriptions of warfare at the time (though not necessarily chariot racing).

As we move into the Roman era there is plenty of indirect evidence for a continued interest in charioteers in Roman Britain. The sources are disparate both geographically and chronologically; they were collated by Humphrey (1984, 431–7) and have been updated here. Surveying from north to south: there is an inscription on a small bone plaque from York: 'Lord Victor, may you have luck and win!', an expression usually pertaining to gladiators or charioteers (*RIB* II 2441.7: RCHME 1962, 135). From Lincolnshire there is the famous mosaic scene showing a chariot race in a full circus scene, replete with architectural details of the *spina* and *metae*, from the Roman villa at Horkstow (Lincs.), considered to be mid-fourth century (Toynbee 1962, 202; Mosaic 53.1: Neal and Cosh 2002, 153). This is complemented by other mosaics from Rudston (E Yorks.) (Mosaic 143.7: Neal and Cosh 2002, 348) and Colerne (Wilts.) (Mosaic 240.1: Neal and Cosh 2005, 342). From Lincoln there is a second- to third-century tomb relief showing a boy charioteer (Toynbee 1962, 159–60; Huskinson 1994, 15–16), as well as fragments of a man holding whips which may represent hunters or charioteers from Bedford Purlieus (Northants.) (Huskinson 1994, 18). From Old Penrith comes an image on a child's tombstone representing him as a victorious charioteer holding a whip and palm branch (*RIB* 932). Charioteers were represented on pottery from the Nene Valley and Colchester wares; and finally from Chedworth

(Glos.) comes a fragmentary inscription citing 'Prasi[.]a' or 'the green company', the *Prasina factio* being one of the famous colours of Roman chariot-racing (*RIB* 127). Mosaic images alone might simply represent stock images used across the Roman world, but once associated with other material culture, the cumulative evidence suggests a genuine awareness if not engagement with chariot racing.

With the Iron Age cultural background it was always surprising that a circus had not been found until, in 2004, one was discovered at Colchester (Crummy 2008). The remains of this example are fairly ephemeral, with the *stadia* comprised of two parallel walls 5.8–6.0 m apart, the inner being only 0.7 m wide and the outer 1.0 m with regular buttresses. The whole layout was unusually narrow and had only eight starting gates rather than the more common twelve; but it did have many of the architectural embellishments expected, including a central barrier (*spina*) complete with monuments at its centre and the turning-posts or *metae*.

In conclusion, there is no *a priori* reason why more circuses should not be found in Britain. The possibility that these ditches might indicate the presence of one was therefore worthy of further investigation.

A POSSIBLE CIRCUS: FURTHER INVESTIGATION

Fluxgate gradiometry had been conducted north-west of the town showing a series of parallel linear features, longer than 360 m, with one end pointing towards to the road leading north from the town in LP 6200, and the other ending in LP 3700. These features ran along the northernmost edge of the gravel plateau that the Roman town sits astride, so the potential course would have been only slightly undulating, though not perfectly flat. In this survey there were no other diagnostic features visible of *stadia*, starting gates or a curved end.

The area of interest was within two parcels divided by the trackway, both part of the same estate but managed by different tenant farmers. To the east the land was divided by electric fences and had a number of horses on it all with different owners, to the east sheep grazed the pasture. The western portion was selected as being most accessible for further investigation. *If* this was a circus then it would be more likely the starting gates would be by a main road, i.e. at the eastern end, and therefore at the other end, in LP 3700, a curved end to the circus might be expected. The objectives were, therefore, to see if potential *stadia* and a central barrier or *spina* could be revealed, perhaps like the Colchester example, and to see if there was evidence for a semi-circular end to secure identification.

An earth resistance survey was carried out using a Geoscan MSP40 mobile square array taking readings each 0.25 m on 1.0 m transects. The survey was deliberately set at an angle in the field so that the major linears under investigation were not on alignment with the survey grid. Because the field included both areas of the flat top of the plateau and also the even better draining slopes off to the north, there was a significant differential in background resistance across the site (FIG. 16.2c). This meant that the variation in the overall background level was greater than that caused by any archaeology. So the data were significantly smoothed to create an image to represent the general background resistance readings of the field (FIG. 16.2d), and then this was subtracted from the raw data to look at the residual readings. This immediately revealed a large number of linear features on the same alignment as the geomagnetic ones (FIG. 16.2e). There were also hints of additional alignments at right-angles to these.

What the survey did not reveal was a clear unambiguous image of a circus with a curved end, but it did reveal a large number of linears that require some form of explanation; and there are not many features in the Roman world that have parallel lines hundreds of metres long.

The multiple parallel lines seen crossing the centre of the field *could* represent one set of *stadia*, but if so they would be far more substantial and complicated than the 6 m-wide *stadia* at Colchester, even more so than at Merida which are *c.* 10 m wide.

For a circus to be proven a complementary set of *stadia* to the south needs to be found, as well as a central barrier (*spina*) with substantial turning-posts (the *metae*) at both ends. Traditionally these turning-posts had a solid base, with three wooden cylinders on them, conical in shape, supposedly imitating cypress trees (Ovid., *Met.* 10.106; Pliny, *NH* 16.60). Within the field there

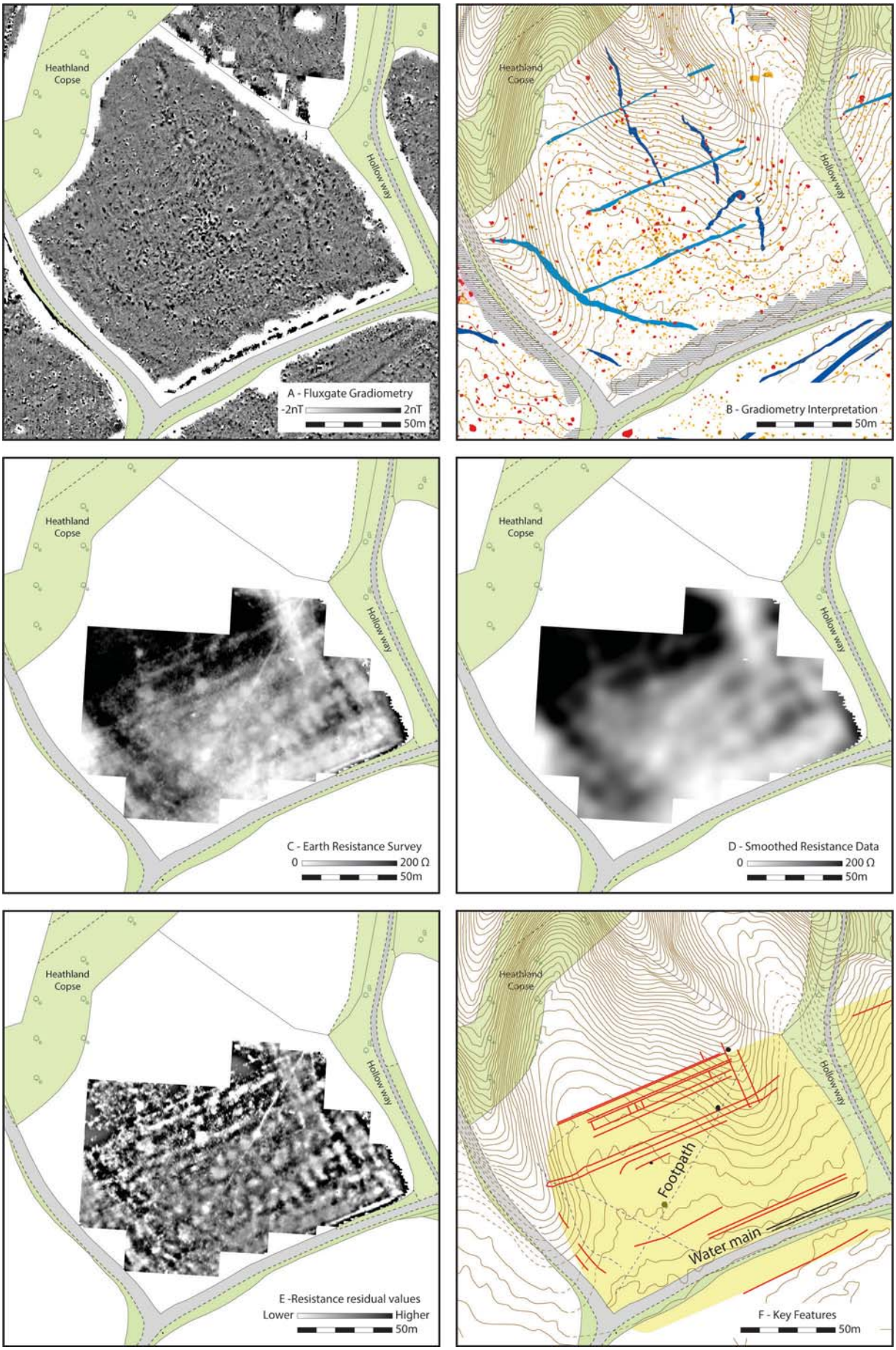

FIG. 16.2. Geophysical investigations of LP 3700.

FIG. 16.3. Comparative size of known circuses compared with the space at Silchester. (Features superimposed over an aerial photographic image from Google Earth, taken in 2010, © 2015 Google, Getmapping plc)

is a dry patch of earth which shows up in a number of seasons of aerial images and as a high-resistance feature, suggesting an even thinner soil than normal. In an optimistic interpretation this could be the foundation of a substantive base of a *meta*, in which case the complementary *stadia* on the southern side would be along the line of Wall Lane (FIG. 16.2f).

It would also mean that the water main would probably have cut the speculated *stadia* when it was excavated; unfortunately no watching-brief took place along this segment as it was outside the scheduled area. In terms of size it is well within the range of the size of other examples (see FIG. 16.3 for a visual comparison).

On the negative side of the argument, when the field was under plough little obvious material appeared to be reported by Corney who walked it three to five times, nor did material turn up according to the recollection of the farmer (Richard Massey pers. comm.); but if there was little day-to-day occupation of the area this would make sense. On the other hand it would count out the use of anything other than flint, earth and timber in the construction as no CBM was observed. Nothing has appeared in the aerial photography in terms of parchmarks.

So, is it a circus? First, it has always been curious that Wall Lane coming out from circling the town to the east just north of the Town Wall, breaks through the Outer Earthwork and immediately does a sharp turn west. This would be explained if it was built over the semi-hard surface of a ruined stadium. Secondly, there are no other archaeological features here, no paddocks, no cemetery observed, nothing; while around most of the rest of the town all sorts of features are present. A circus would explain the absence of features. Thirdly, the prospective entrance to the circus starting gates would be just off the road to the north, which is a sensible location to draw in a chariot from. Fourthly, aerial photography showed a major circular feature *c.* 28 m in diameter just on the other side of the road from here. This is not a complete circle but slightly open at the southern end (in LP 8100, Exterior 5). It is too large to be a roundhouse, and it looks very similar to the size and shape of the 34 m-diameter *gyrus* at the Lunt (Baginton fort, near Coventry, Warwicks.) for horse-training, which in co-proximity to a circus would make great sense (Hobley 1982; Hobley and Charlesworth 1974). But none of this is proof, it is just putting into place the elements of a speculative idea that requires further testing.

Are there alternative explanations? Could the geomagnetic linears have just been two very long thin field-boundaries on the edge of town? Possibly, though that does not explain the multiple linears in the earth resistance survey. Could the linears simply be showing later ridge-and-furrow? Possibly but the readings lack the regularity that this often shows in such data.

CONCLUSION

Silchester does not yet have Britain's second confirmed circus, though there is something there north-west of the town. The absence of other material culture means that the linears need to be explained by some kind of activity that left little material cultural trace to be discovered in fieldwalking.

CHAPTER 17

CALLEVA: HISTORICAL AND ARCHAEOLOGICAL NARRATIVES

PROBLEMS WITH NARRATIVES

Calleva Atrebatum is entirely absent from the historical record save for its name appearing in the texts of the Antonine Itineraries and Ravenna Cosmography, on the coinage of Eppillus and on inscriptions from the site (*RIB* 69–71). Nowhere is it mentioned in any of the narrative sources of the period.

The temptation to associate the fragmentary archaeological remains with the even more fragmentary historical record of the province has always existed, and always will as we try to find ways of making sense of the past by creating stories from it. We might chuckle quietly at the antiquarian beliefs that Constantius was buried here, that the site witnessed Constantine the Great's elevation to the purple, and that Arthur drew the sword from the ogham stone and was crowned here (see Chapter 2); but each association was based upon an interpretation of the evidence that seemed appropriate at the time. This section examines the long-term development of *Calleva*, and how the site has been situated within narrative history. It takes the story up to the Norman Conquest and a bit beyond when literary sources finally start to shed light upon the Domesday village now re-christened Silcestre. Each part deals with successive historical periods. Readers will note how variable and fluid interpretations are, which says a lot about the quality of the evidence leaving scope for multiple interpretations. This, in itself, demonstrates how problematic turning archaeological evidence into a traditional historical narrative is, but an attempt should be made nonetheless.

THE *OPPIDUM* AND HISTORY

Chapter 11 examined the evidence for the *oppidum* from the archaeological point of view. Here we examine its incorporation into historical narratives. Once Silchester was securely identified as *Calleva Atrebatum*, at the very end of the nineteenth century, it was not long before the town became associated with Commius. He was first appointed or recognised as king of the Gallic Atrebates by Caesar (*BG* 4.27), then given additional dominions to rule in Gaul before being sent over, as a diplomat, to Britain to pave the way for the invasion by Caesar (*BG* 4.21). While that mission failed when he was taken captive, he did redeem himself in negotiating Cassivellaunus' surrender the following campaign season (*BG* 5.22). However, the Gallic revolt saw Commius torn and he switched sides (*BG* 7.75); he escaped the defeat at Alesia to become a thorn in Caesar's side until finally surrendering to Marc Antony, shortly after a failed assassination attempt on his life (*BG* 8.23, 48). In coming to terms with Caesar's general he expressed the wish to be sent somewhere he did not have to set eyes upon Romans. Soon after this coins bearing the word COMMIOS, the first legend to be seen on British coins, drawn from a design in Belgic Gaul, start to appear in Central-Southern Britain. The two have long been assumed to be one and the same (Creighton 2000, 59–64). Three people claimed on their coins to be his son, and their issues are found in a broad swathe across Central-Southern England. The three were named Tincomarus, Eppillus and Verica. This area includes Silchester on its northern edge. Then shortly before the Claudian conquest a new coin series became dominant in the vicinity, which bore the names of members of a different dynasty to the east, those of Epaticcus and Caratacus, brother and son of Cunobelin respectively.

Hawkes and Dunning (1930, 293–4) associated the arrival of Commius and his followers with the distribution of bead-rim ceramics and tacitly related Silchester to his arrival, though they acknowledged the imprecision of dating then available. Within a few years Cotton was able to say that traditionally Silchester was thought of as being founded by Commius (Cotton 1947, 140). But it was the discovery of the Inner Earthwork and the excavations in the 1950s that provided more material evidence around which to spin a new story. Boon masterfully wove together all the threads of evidence from the collections in Reading Museum with his own excavations to create a deeply-historically-aligned narrative, where every earthwork and ditch could be associated with a specific historic event (Boon 1969, 21–45). Each phase related to the imagined dynastic history of Commius and his three sons: Tincomarus (then known as 'Tincommios'), Eppillus and Verica. In Boon's Period 1 the settlement of Commius and his eldest son Tincomarus was represented by the early enclosures of the Frith, the Rampier Copse Enclosure and the Flex Ditch promontory. In Period 2 Eppillus revolted against his now-ruling elder brother and then built the Dicker's Farm Dyke to protect himself against the rump of Tincomarus' kingdom to the south-east. This is when the major imports started to arrive: the Arretine, Terra Nigra and Terra Rubra. Period 3 marked the ousting of Eppillus and/or his successor brother Verica by the Catuvellauni led by Epaticcus. Boon believed the metal residue on the coin moulds reflected Catuvellaunian coinage, so was indicative of their ascendency at the site. Epaticcus followed by his nephew, the resistance leader Caratacus, then ruled here. Their stay was represented by the occupation around the South Gate and the new Oldhouse Lane dyke, looking out onto 'the shrunken realm of Verica' (Boon 1969) (this is explored in more detail on p. 303, FIG. 9.1).

In marked contrast to Boon, Fulford, in his earliest engagement with Silchester examining the defences, eschewed constructing a historical narrative in his conclusions (Fulford 1984). But his subsequent excavation on the Basilica site provided him with a rich assemblage of material in clear stratigraphic sequence to construct a story around. Alongside this Timby re-assessed some of Boon's assemblages, enabling Fulford to re-date the Inner Earthwork, moving it back in time to the later first century B.C. so it could be added into the story. Initially, in interims before the chronology settled down, Fulford continued to display a reluctance to speculate too much (Fulford 1985a, 56), but that did not last. Within a couple of years he was associating construction events with the starts and ends of reigns. The Basilica site Period 1 he ascribed to a Commian foundation, while what were later to be named Periods 2–3 he equated to the reigns of Tincomarus and Eppillus, linked to the arrival of more imports (Fulford 1987a, 277). This is the version that still appears in Cunliffe's textbook of the Iron Age (Cunliffe 2005, 172). By the time Fulford was closer to full publication his articles associated the site firmly with Eppillus Rex (based on the coins inscribed CALLEV), describing it as a royal residence:

> … but whether this was the case with other Atrebatic leaders is uncertain, although probable. Since there is no archaeological evidence for a break in occupation or for a major change in the character of the occupation, it is likely that *Calleva* was a 'royal' residence from 20/10 B.C. ([Tincomarus] onwards). On the assumption that Verica was ejected from *Calleva* before he fled to Rome in A.D. 41 and that the settlement had been subsumed within the paramount kingdom of Cunobelin and his successors in the A.D. 30s, it is likely to have remained the residence of a leading man and his retainers, despite the absence of conclusive numismatic evidence. (Fulford 1993, 19)

The synthesis in his final report clearly separated out an archaeological narrative from consideration of the historical context. Here, again, he saw Tincomarus and Eppillus as based at Silchester, but then he was cautiously ambiguous about whether the area had come into the hands of Epaticcus and Caratacus, noting that the underlying networks evident in the archaeology 'seem to have remained in place and no discernible disruptions can be detected in the relations of *Calleva* with its nearer and more distant hinterland' (Fulford and Timby 2000, 560). The narrative instead focused more on material, processes and trends than on specific individuals and pseudo-history. Compare, for example, this to Wacher's take on Silchester. Wacher saw the town as associated with the 'Atrebatic prince, Eppillus, who rebelled against his brother, [Tincomarus]', until Catuvellaunian expansion overwhelmed him and it became an *oppidum* of

Epaticcus then Caratacus. He also saw the Inner Earthwork as being built by the Catuvellaunian princes in response to the Roman forces landing in Kent (Wacher 1995, 272).

We have yet to see how Fulford will consider the wealth of early information from Insula IX, but it will certainly inform a major revision in understanding the early settlement.

ALTERNATIVE VIEW

Boon's beguiling and historically-specific narrative had at its heart a belief that we actually understand what happened in Late Iron Age Britain; that we know the relationship between the three apparent sons of Commius; that we believe in 'the Atrebates' as a tribe or entity in opposition to 'the Catuvellauni'; and that *oppida* were indeed the royal bases of these dynasts.

The relationship between the three sons, as in the relationship between almost any three males of the same generation in a ruling dynasty, is liable to have been problematic. Our actual 'historical' knowledge is limited to the following. Tincomarus is quite possibly the same individual named as one of the suppliants (*supplices*) to Augustus (*Res Gestae* 32). Stylistically his coinage included some virtually identical to his father's in a semi-abstract design, before his coins took on far more classical imagery. The other two 'brothers' only have classically designed coins, so they are assumed to be later. Verica was reported to be in Rome at the time of the Claudian conquest having fled there (Dio Cassius 60.19), so he comes at the end of the story, though we have no idea who forced him out, whether it was external forces or internal rivalry. This leaves Eppillus who is conventionally imagined as reigning in between them, and about whom historical sources tell us nothing, except that he inscribed some of his coins with the name 'CALLEV'. However, plenty of variant histories of the siblings have been created from examining coin distributions. Some of the brothers have been imagined as concurrent, battling against each other (Bean 2000). All this says more about the scope for arguing the evidence in a variety of ways than necessarily about the accuracy of any one of the scenarios. Boon's narrative above is a classic example of the elaboration of our limited evidence.

At the heart of many of these narratives is the concept of the tribe, of the Atrebates and Catuvellauni battling it out and competing for dominance, with the latter generally prevailing at Silchester. The distributions of 'Atrebatic' or 'Catuvellaunian' coinage are useful shorthands, but these labels give an artificial solidity to notional tribal structures which are largely a creation of our own epistemology. They come from a retrofitting of the second-century A.D. *civitas* map derived from Ptolemy to the Later Iron Age landscape. Having imagined these territories were long-established and timeless, individual coin types were allocated to one or another throughout the twentieth century based on where they were found. This created entire Atrebatic and Catuvellaunian coin series in a circular argument. The coins must belong to tribe X because they are found there; and the definition of the tribal area is the distribution of the coinage. This, ultimately is the procedure used by Mack (1953), Allen (too many papers to mention), Van Arsdell (1989) and to a certain extent, more recently by Cottam *et al.* (2010). It is also the reason why others have tried to avoid 'tribal' names in their works altogether (Haselgrove 1987; Hobbs 1996; Creighton 2000).

There are elements of justification in calling them regional groups as there are often strong stylistic similarities within each area, but too little attention was paid to those coins which did not fit in neatly. Two individual coin types, virtually identical, and possibly sharing dies, could end up being allocated to different 'tribes' because they were found in different areas, while on any other criteria they might have appeared to have been produced by the same authority. Leins has explored this well in his thesis (Leins 2012, 41–4). Without the overarching later *civitas* names applied, the rule of Commius and the early dynasts seems to suggest they had a reasonably tight control over gold. By way of contrast, numerous local silver issues seem to have existed which did not circulate particularly far. Leins paints a picture of small-scale perhaps peripatetic production for local leaders, merchants and/or for specific temples; but he also saw centralisation gradually taking place reaching its peak under Cunobelin. Overall he perceived individuals were gradually exerting their influence and power, or at least their coins were providing utility and gaining greater acceptance.

The relevance to Silchester comes in its location, which lies towards the northern edge of the finds of the Southern dynastic series (a more neutral term to describe 'Atrebatic' coinage), but in the very Late Iron Age the area appears to have come under the influence of the coinage of Epaticcus, brother of Cunobelin. Boon talked of conquest here, and this kind of narrative of a takeover through Catuvellaunian expansionism is common, forcing Verica out so he had to flee to Rome (though we know of no details of his departure to Rome).

Yet there are two mismatches between this overall story from broad coin distributions and the coin detail. First, while Eppillus, one of three who claimed to be Commius' son on his coinage, minted coins with the name CALLEV on them, the highest density of his coins comes not from Hampshire, but further to the east in Kent. Secondly, Boon noted a relative absence of Commian dynastic coinage from *Calleva*, and this has always been a concern. Boon's first hand-list of 23 Iron Age coins from the site included not a single coin of the Commian Southern dynasty, though there were plenty of the Tasciovanian Eastern dynasty present and others from areas to the west and Gaul (Boon 1954a); so going on to consider this as being their town is somewhat curious. By 2000 his updated hand-list of 66 Iron Age coins included only five of the Commian dynasty; but this did not include any of Commius himself, nor of Eppillus, the only person to appropriate the name of the town on his coins. All we had were four of Tincomarus and one of Verica. By way of contrast, far more came from the Tasciovanian Eastern dynasty (though only one of Epaticcus) and a wide variety of communities across Britain and Gaul. Indeed the variety of coinage is an unusual aspect of the assemblage (Fulford and Timby 2000, 165–70). Historical narratives have cast Silchester as founded by Commius and dominated by his sons until Epaticcus of the Eastern dynasty took over the area and cast Verica out, in which case it is troubling that the key players are represented by so very little from the site. It will again be interesting to see if the Insula IX finds reinforce this deficiency making the standard narrative even more problematic and awkward.

Instead of trying to construct pseudo-histories of an eternal confrontation between Cunobelin and his neighbours, we could equally imagine Cunobelin as the high king or paramount king of Britain (*Britannorum rex:* Suet., *Gaius* 44), exerting his power and influence not directly but through associates further afield, such as some of the eleven kings that were said to have surrendered when Claudius arrived (*CIL* 6.920).

So what kind of narrative are we left with? Fulford saw continuity in the network of contacts visible in the material remains throughout his Basilica Periods 2–3, with objects always coming from both the southern area and the Thames Valley. There will undoubtedly have been political tensions and rivalries, but unless fine-grained stratigraphic information leads us to see radical switches in procurement zones, it is going to be tricky to tell that story from the archaeological evidence. But what we *can* see is the establishment of this new centre, initially as an open settlement on the gravel terrace (FIG. 17.1a). Within a generation the Inner Earthwork was constructed and the enclosed space began to be planned and streets laid out. Its finds display a strong connectivity with the major powers of central and eastern Britain, as well as with the expanding Roman world (FIG. 17.1b). We can talk of authoritative power, cultural influences, new ways of being, but we cannot be sure of exactly who constructed particular defences or buildings or when, the data cannot sustain it.

THE CLAUDIAN INVASION AND COGIDUBNUS

In A.D. 43 the Roman legions came to Britain, but this time stayed. Silchester did not figure in any of the accounts of the event, but obvious questions to ask would be about the ferocity of impact upon and the disruption to the local population; the duration, if any, of the military occupation (see Chapter 12); and the nature of the governance of the town and how it related to the Great King of the Britons, Tiberius Claudius Cogidubnus, though his name might actually have been Togidumnus (Tacitus, *Agric.* 14.1.28; for manuscript variants and philological argument see Murgia 1977, 339). Cogidubnus' reign is a moveable feast and it is difficult to know when it started or ended, and reconstructions of events have taken various approaches; similarly the extent of his kingdom has been much disputed (see p. 366).

The initial Claudian invasion rapidly marched through southern Britain to Colchester. It probably bypassed *Calleva* entirely, even though, as Boon observed, the restoration of Verica had been mentioned as a *casus belli*. Nonetheless, the Roman presence would have been felt reasonably rapidly. Boon imagined things as being relatively straightforward. The Atrebatic kingdom of Verica was restored in A.D. 43, probably under Cogidubnus, and lasted down to his death, perhaps in A.D. 77–8. He called this the regnal period and associated with it the construction of the Inner and Outer Earthworks (Boon 1969, 37–9; 1974, 42–3).

Fulford's work, re-dating the Inner Earthwork, moving it earlier into the Iron Age, necessitated a change to this version. He inserted a Roman military phase immediately after the conquest based upon his early identification of the Period 4 building on the Basilica site as a *principia* building. The imagined fortress was positioned to 'take control of a major native centre and one possibly to be associated with the continuing resistance of Caratacus' (Fulford 1993, 21). He envisaged, in this early play with ideas, that the army had re-used the Later Iron Age Inner Earthwork, the previous occupants being sold into slavery or swept aside to make way for a vexillation or the entirety of Legion II Augusta. This could have lasted until the Inner Earthwork was infilled, which Boon had dated to the late Claudian period. The army could have then moved on and the *caput civitatis* could have been granted to Cogidubnus (Fulford 1993, 25). This interpretation altered as post-excavation progressed. In his final report on the Basilica the interpretation of the Period 4 structure as a *principia* building had ebbed, meaning Cogidubnus' influence on the site could have started earlier; Fulford even considered there could have been an early palatial complex built for him (Fulford and Timby 2000, 565–9). Soon the Insula IX stratified material will need to be added to the story.

Archaeologically, around the time of the conquest the north–south road was constructed with the large timber buildings on the Basilica site aligned to it. This could be a proto-forum or shops (see p. 411). Early on the inner core of the town appears to have been replanned on a new alignment. Possibly the core was remodelled all in one go, possibly in stages with the proto-forum square to the east of the road first, then extending to the construction of Fulford's hypothesised palace to the west. Whatever, the whole Iron Age interior of Silchester was not wiped away in one go, but just a modest area on top of where a major palisaded enclosure had previously been (FIG. 17.1c).

NERONIAN TILES AND PALACES

While there has never been any direct evidence for Cogidubnus at Silchester, the emperor Nero has been presenced by the discovery of the 'Nero' tiles produced close by at Little London; and these need to be woven into the story. How that has been done depends on when Cogidubnus is thought to have died.

In Greenaway's conception the imperial tilery related to an initial building boom under Cogidubnus, with the tiles representing official support given to him to create the early town (Greenaway 1981, 291). Fulford initially disagreed with this, believing the Neronian tiles could not be taken as evidence of support for Cogidubnus because of Nero's track record of confiscating client kingdoms rather than assisting them with projects within (Fulford and Timby 2000, 568). However, this stance was reversed significantly in a series of papers where he went on to hypothesise the existence of a palace for Cogidubnus to the west of the Forum site. He wondered if this hypothetical building might have been a gift to the king from an emperor, thankful for his loyalty during the Boudican revolt. The evidence for its existence came from the Antiquaries' excavations around the western side of the Forum, and in his own in Insula IX, re-used masonry architectural elements had been recovered suggesting a monumental pre-Flavian building had once existed in the vicinity. Several Neronian stamped tiles have also come from the area. Fulford envisaged a Cogidubnian palace almost as large as the proto-palace at Fishbourne (Fulford 2003; 2008, 6–7) (see pp. 397–8); however, it is curious that the hypothetical Cogidubnian palace should subsequently have been so completely demolished and excised from the townscape. Fulford's new excavations in Insula III (2013+) will help untangle this puzzle.

THE BOUDICAN REVOLT

Boon surmised that the Boudican revolt's only impact on Silchester was the construction of additional defences in response to the threat, perhaps those which he called his secondary Outer Earthwork (FIG. 9.1; Boon 1974, 46). Silchester, after all, was a long way from the Iceni and not one of the three cities mentioned by Tacitus (*Ann.* 14.31–3) where unambiguous thick black stratigraphic horizons have been found as testament to the destruction. Nonetheless, in interims Fulford has played with the idea that Boudican destruction deposits can also be found at Silchester. In 2002–3 a section was excavated half-way along the east–west road on Insula IX and at its base traces of burning were found which at the time were explained as 'a layer of burnt material which represented the remains of a building destroyed to make way for it. The pottery from this horizon dates to about AD 40–60' (Clarke *et al.* 2005, 3). Later, however, when similar traces of burning of the same date were found under a section where the east–west and north–south roads crossed, the story changed to be evidence of the Boudican revolt reaching Silchester (Fulford *et al.* 2011, 10–11). There is no trench-wide burning remotely comparable to the London, Colchester and *Verulamium* conflagrations. A burnt horizon clearing the way immediately before a new street was constructed above should not be unexpected nor require special explanation. Burning was seen, for example, immediately beneath the construction of Grim's Bank (O.A. 2005a, 10). It will be interesting to see how the idea develops by the time of the final report. As he himself said, 'the linking of archaeologically defined events with those recorded by Roman historians is fraught with difficulty' (Fulford *et al.* 2011, 11). As said above, he has also considered his palace might have been an imperial gift to Cogidubnus for his loyalty during the revolt.

Archaeologically we can see that at some time shortly before or after the revolt, Silchester was graced with the construction of the Amphitheatre. It looks as if at some point part of the Inner Earthwork was filled in and extended to the north-east, perhaps incorporating the Amphitheatre if the ditch on its eastern side is related, as well as the Temple area around Insula XXX. Public Baths were constructed, built on top of the bank of the former Inner Earthwork and draining into its ditch (though dating evidence is sparse). At the time the baths may have been outside the original extent of the new grid, nestled down at the head of the slight valley carved into the gravel plateau. The street-grid itself was extended with wider insulae being added to the north and south, perhaps at the same time though we only have dating evidence for the street on the north side of Insula IX (FIG. 17.1d).

FROM KINGDOM TO *CIVITAS*

Boon imagined Cogidubnus dying around A.D. 77–8 and the kingdom then being incorporated into the now fully-fledged province. His thinking was influenced by Eric Birley, who had argued that the appointment of two juridical legates, C. Salvius Liberalis *c.* A.D. 81 and L. Javolenus Priscus, *c.* A.D. 84, related to the legal niceties this entailed. Tacitus did not mention the death of the king in his biography of the governor Agricola, making many think that this must have happened before Agricola's governorship started in A.D. 77–8 (Birley 2005, 268–72, 468). Boon envisaged the creation of *civitates c.* A.D. 84–6 (Boon 1969, 38–9).

In this context Boon saw the Flavian construction of the street-grid (as he then envisaged it) as signifying and marking out the creation of the *civitas* of the Atrebates (Boon 1974, 53), an idea in which he was followed by Wacher (1995, 275–6) and Greenaway (1981, 291), who also saw the period as one of other new constructions, such as the first Forum and the demolition of the portico of the Public Baths as a new road ran through its frontage.

More recently, in Fulford's latest construction of events, this transition from kingdom to province has been imagined to have been brutish and unpleasant. Fulford and Clarke recently imagined deliberate destruction upon the death of the king, that it was imperial policy to annexe client kingdoms upon the death of a ruler; in this context they saw the deliberate demolition of Fulford's hypothetical palace of Cogidubnus and a deliberate removal of all traces of the royal town. They then saw the re-use of masonry elements from the earlier building and the

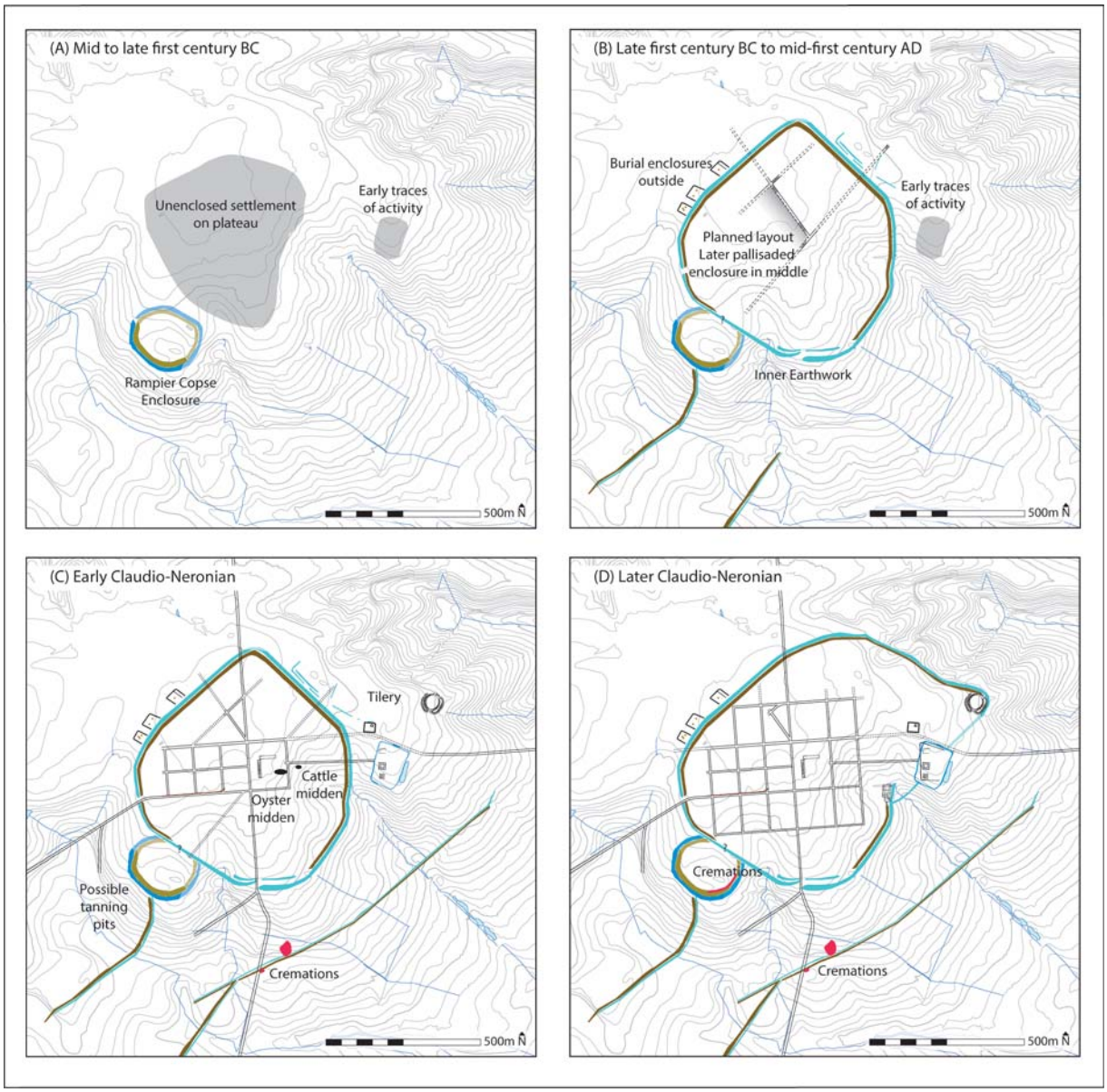

FIG. 17.1. The early development of *Calleva*.

construction of houses aligned with the old lanes rather than the new orthogonal streets as displays of passive resistance to the new order (Fulford and Clarke 2011b, 18). This would seem to be a remarkable end to the kingdom of someone whom Vespasian would have known when he was legate of II Augusta in A.D. 43–7; someone who might have survived the Boudican revolt and supported the Flavians during the year of four emperors (A.D. 69), resulting in Tacitus noting him for his loyalty (Tacitus, *Agric*. 14.1).

The review within this volume sees the buildings on the old lane alignment to the north of the hypothetical palace as being merely an artefact of the gradual evolution of the street-grid.

THE MATURITY OF THE *CIVITAS*

CHARTERED STATUS, PUBLIC BUILDINGS AND DEFENCES

In the early twentieth century the stone Forum-Basilica had mistakenly been associated with Agricola and a Flavian programme of Romanisation by urbanisation, but Fulford's excavation

showed that phase was actually Hadrianic (Collingwood and Myres 1936, 192; Esmonde Cleary 1998, 36). However, the diminution in Roman historical sources after Tacitus meant that there were fewer pegs to hang archaeological evidence onto over the following centuries.

For want of historical events, building programmes in cities have often been associated with changes in status. Just as the creation of the *civitas* was once seen to be a stimulus towards the establishment of the street-grid at Silchester, in London Frere (1999, 197) amongst others wondered if the Flavian and Hadrianic fora there had marked London's elevation to *municipium* and then *colonia*. If that were the case, could the timber and stone at Silchester mark similar events? Fulford's timber Forum (Period 5), constructed around A.D. 80–90, had some architectural embellishments, notably the wall-plaster, which linked it to the developments at Fishbourne. Otherwise, the use of timber suggested to him that the absorption of the kingdom into the emperor's *patrimonium* had meant that the *civitas* started life with no reserves left to build one in stone (Fulford and Timby 2000, 573). He therefore saw its replacement in stone in the Hadrianic–early Antonine period as a clear political statement by the city of their new-found wealth and success, as the previous timber building was unlikely to have needed replacement by then (Fulford and Timby 2000, 573).

Wilson (2006a, 12) explored the idea of associating early defences with towns gaining chartered status. While he dismissed the Outer Earthworks as Iron Age, this volume has suggested they are later first century; in which case, following his argument, Silchester would be a contender to have been an early *municipium* (though second-century Ptolemy gives no indication of that in his *Geography*). In the same volume, Fulford questioned this entire approach. For him the possibility that two 'unplanned' small towns, Carlisle and Ilchester, could be *civitas* capitals meant that status and public buildings, layouts and defences could not easily be correlated (Fulford 2006, 69–70).

Eventually the town was encircled with a new set of earthworks and a ditch, replacing the Outer Earthwork and focusing on a much smaller area. The changing historical interpretations of town earthworks have already been discussed, but the protection of the cities in the light of Clodius Albinus stripping the province of troops in order to fight Septimius Severus in A.D. 193 is the most commonly invoked historical context (Boon 1974, 66; Fulford 1984, 235; Frere 1984, 69).

Undoubtedly historical events and legal frameworks will have impinged in some way on what happened at Silchester; the only trouble is that the lack of precision in archaeological dating and the dearth of literary sources make the association of archaeological features and historical events exceptionally problematic. Nonetheless, what we can point to is a sustained period of public-building activity throughout the first to mid-second century (Table 17.1).

Archaeologically we can see the town continuing to evolve. More elements of the old Inner Earthwork fell into redundancy and were filled in and replaced. The street-grid appears to have been extended again crossing the old Inner Earthwork both to the north-west and south. However, the three large burial enclosures to the north-west remained protected within this expansion in a large block of their own (FIG. 17.2e). Both this expansion and the construction of the first unambiguous timber Forum took place around A.D. 80–90 or a little later. At some stage in the second century there appears to have been another call for defences; the Sandy's Lands earthwork was constructed with a small stone revetment showing a nice façade to the west, though it is unclear if this was ever fully completed, or that defences to the eastern side of the town were extant at that stage at all. The Sandy's Lands bank protected the major burial enclosures, but in doing so cut off the road leading to the cremation cemetery on that side (FIG. 17.2e–f). However, shortly thereafter the area seemed to be deemed worthy of protection by a much smaller earthwork with the construction of the North-West Annex (FIG. 17.2g). Meanwhile in the east, at some stage the two temple and possible burial enclosures of Insulae XXX and XXXVI were monumentalised by encircling them with a stone wall, a treatment the enclosures to the west never had.

If the remains further to the north-west of the town are those of a circus (which is by no means certain, see p. 427), then it would make sense if it was constructed later than this, since it is positioned between the north side of this earthwork and the gravel terrace edge. If so, this would make it second century or later, so potentially similar in date to the Colchester example.

TABLE 17.1. CONSTRUCTION PROJECTS AT SILCHESTER

Foundation (unenclosed settlement)	*c.* 25–15 B.C. (or a bit earlier)	see p. 342 FIG. 17.1a
Inner Earthwork	late first century B.C.	see p. 343 FIG. 17.1b
Core Roman street-grid	Claudian	see p. 392 FIG. 17.1c
Cogidubnus' palace (Fulford's hypothesis)	early Neronian?	see p. 397
Amphitheatre, timber 1	*c.* A.D. 55–77	see p. 220 FIG. 17.1d
North-East Earthwork Extension	*TPQ c.* A.D. 55–77	see p. 325
Public Baths	?pre-streets in this area	see p. 308
Street-grid extension	early Flavian	see pp. 325, 392
Timber Basilica Forum (Period 5)	A.D. 80–90	see p. 106 FIG. 17.2e
Outer Earthwork Sandy's Lands (possibly not completed)	post-A.D. 80–130	see p. 327 FIG. 17.2f
Amphitheatre, timber 2	*c.* mid-second century	see p. 220
North-West Annex	?	see p. 327
(?) Corvées working on Hadrian's Wall	Hadrianic	see Fulford 2006
Amphitheatre, masonry 1	Hadrianic to early Antonine	see p. 220
Masonry Basilica Forum (Period 6)	Hadrianic to early Antonine	see p. 107 FIG. 17.2g
Clad Gully Outer Earthwork	?	see p. 327
Town Rampart	A.D. 180–200	see p. 298
Amphitheatre, masonry 2	*c.* A.D. 250	see p. 220
Town Wall	A.D. 260–80	see p. 300
Major re-metalling of roads	later third century	see p. 393 FIG. 17.2h

THE THIRD AND FOURTH CENTURY

The third century saw the construction of the Town Gates in stone and eventually the embellishment of the Town Rampart with the addition of a wall in the mid-to-late third century (FIG. 17.2h; for narratives associated with this see pp. 298–300). Beyond that our lack of dating evidence for the plan established by the Antiquaries restricts what we can say.

The third century is when, in the lack of widespread dating evidence, we imagine the town to have been at its zenith. Encircled within an impressive Town Wall, it was now complete with all its public buildings. This is the stage of development that most artistic representations of Silchester choose to illustrate. The Great Plan with its palimpsest of buildings provided the foundation on to which others built. Alan Sorrell was perhaps the earliest to understand the impact visual representations could have, and he took exceptional care in the creation of his images. His painting of Silchester was designed in the 1970s through intense dialogue with Jill Greenaway, who by then had taken charge of the Silchester collections at Reading Museum from George Boon (Perry and Johnson 2014; Sorrell 1976). His images represent the town at its height, though even that idea includes within it the concept of fourth-century urban decline which the Insula IX excavations have put into question. All other overviews of the town have followed suit, reconstructing the town based on the basis of the multi-period Great Plan. One of these was the 1995 model built for Reading Museum (Greenaway 2013), which was a far more challenging reconstruction as the 'unknowns' could not be hidden behind smoke as Sorrell had been able to do. More recently English Heritage commissioned a new visual reconstruction overview. This was undertaken by Ivan Lapper, choosing to bask the site in sunshine rather than Sorrell's twilight, though otherwise the view was of exactly the same perspective. Reconstructions or imaginings of the Iron Age or Early Roman town have always been on a smaller scale focusing on specific buildings as so much less is known of the overall layout of the town in earlier periods.

The fall of the British Empire of Carausius and Allectus in A.D. 296 was the next occasion to pin archaeology on the historic framework. Joyce associated the burning of the Basilica (and the

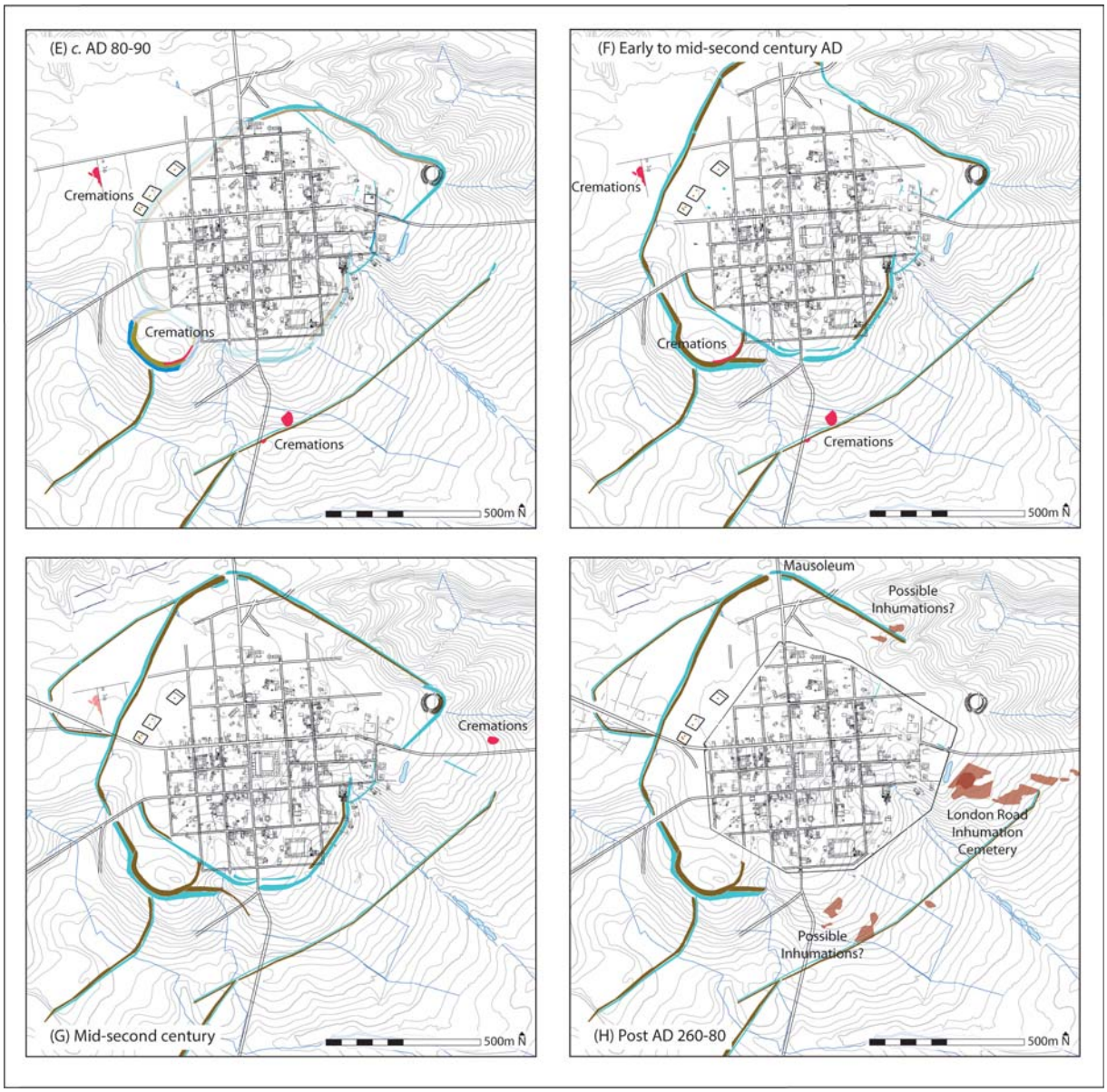

FIG. 17.2. The later development of *Calleva*.

burial of the eagle beneath it) with the re-conquest of Britain. This was achieved by Asclepiodotus sailing across the Channel, evading the British fleet off the Isle of Wight, landing, burning his ships and advancing towards London. Allectus' forces left London to meet them, and Silchester was logically imagined as having been on the best route, and therefore close to the location of the final battle before Constantius came to land in Kent unopposed, marched into London and reunited Britain with the Empire (Kempthorne 1914–16, 33). Joyce imagined that the eagle had been buried to save it by a beleaguered *aquilifer*, as Asclepiodotus marched through central southern Britain to meet up with the forces of Constantius I and defeat the rebel Allectus (Joyce 1881b, 364; Boon 1974, 71). This became lore: 'Towards the end of the third century some of the town, including the Basilica, was burnt, possibly as the result of the battle between the rebel Allectus and the Emperor Constantius Chlorus' (Liversidge 1968, 37). The burnt deposit the eagle was found in has subsequently been completely reinterpreted and moved earlier in date to A.D. 125–50, so alas that association has to be laid to rest (Durham 2013, 86); by happenstance this revised date was closer to when Rosemary Sutcliffe had set her fictionalised account of the loss and recovery of *The Eagle of the Ninth* based loosely around the deposition of the find (Sutcliffe 1954).

Fourth-century Silchester once laid claim to stories of the death of Constantius and the elevation of Constantine the Great at *Caer Segont* (Nennius, *Hist. Brit.* 25, *contra* Eusebius, *Life of Constantine* 15); this was based on the mistaken identification of the town with *Segontium*, an issue finally resolved at the start of the twentieth century, which saw a loss to the site of these fourth-century historical associations along with later associations with King Arthur.

SILCHESTER AFTER THE ROMANS

THE END OF *CALLEVA*

> The tradition of the country people is, that [the Roman town] was burnt by means of wildfire attached to the tails of sparrows; the roofs of the dwellings, being principally of thatch, readily ignited. For sparrows we have but to read fire-arrows, and the substance of the tradition may be true; at any rate we may conclude that fire destroyed the dwellings, while the sword cut short the lives of the miserable Segontians. (Kempe 1833, 124)

The abandonment of the town leaving the empty fields we see today meant that its end has always caught the imagination. Kempe's tale, reiterated by Wright and Fairholt (1845, 150), articulated how the locals saw it. Kempe, however, preferred creating his own stories based upon the uncovered remains. He evoked the end, describing a body found in the Revd J. Coles' excavation of the *Mansio* bathhouse thus:

> When Silchester was stormed, one of its inhabitants had sought refuge in this place, hastily throwing his treasure, for concealment, into the bath; here he fell by the Saxon sword, or was crushed under the falling ruins of the building; a faithful dog, whose skull was discovered near him, had shared his fate. (Kempe 1833, 125)

During the Antiquaries' excavation the discovery of the ogham stone inscribed with Tebicatos' name in Insula IX showed that Silchester clearly had a past that carried on beyond the departure of the Roman legions in A.D. 410. However, the lack of numerous dead bodies suggested the town had more likely been abandoned than the population put to the sword or cut down by the plague (Haverfield 1904).

The study was not put on to a robust footing until Boon's survey of the latest material in the Silchester collections from the excavations of Joyce through to the Antiquaries (Boon 1959; inventory partly updated in Snyder 1996, 41–2; 1997). Boon viewed Silchester as a surviving British enclave, partly protected from its Saxon neighbours by Grim's Bank. He considered a breakdown in Romanised local authority must have occurred to enable a pagan Irishman to be buried within the Town Walls, since he took the ogham inscription to be a tombstone. He argued for the town's survival through the fifth and sixth centuries until the incorporation of the area into the Wessex kingdom, perhaps during the campaigns of Cynric and Ceawlin (*c.* A.D. 552–68) (Boon 1974, 74–82).

Since then the key additional finds have been the recovery of a siliqua hoard from just south-west of the town (LP 2900, Exterior 17), where about a quarter of the coins were clipped, so perhaps dating to a little after A.D. 410 (Fulford *et al.* 1989); the excavations within the Basilica which revealed a curious assemblage of post-Roman red-streaked glass; and most important of all the excavation of Insula IX, including the area where the ogham inscription had been found, where one of the key research aims was the search for post-Roman occupation.

Fulford's excavations in Insula IX have clearly demonstrated that the block was still occupied and active as Roman material culture starts to become more elusive at the beginning of the fifth century. Beyond that, occupation appears to have continued and is represented by a number of pits of indeterminate date and short stratified sequences showing continuing activity around Buildings 1 and 8. How late these sequences should be stretched is always challenging and a matter for debate. Fulford has argued for a longer rather than shorter chronology, based on dividing his later pits into three categories: (1) pits with the latest pottery and Theodosian coins; (2) pits with no Theodosian coins but residual pottery and some earlier curated artefacts; and

(3) stratigraphically late, but only residual material rather than specifically the latest Roman pottery types (Fulford *et al.* 2006, 276). This provides a good relative sequence, though fixing an absolute date to it is a problem. The first group he dated to the cessation of the use of Theodosian coinage, explaining why so many were deposited. Besley considered the coinage would have ceased circulation within a decade or two of its issue in A.D. 388–402, so thought most would have entered the archaeological record by the A.D. 410–20s. But then Fulford dated the second group to *after* the mid-fifth century, though it is not clear why they need to be quite so late rather than post-A.D. 410–20. With his third group of pits being later still his chronology is pushed into the sixth century.

Fulford also considered some of the wells did not show signs of gradual silting so were more likely to have been deliberately sealed, suggesting an abandonment event marking the cessation of occupation in the town, which the buried ironwork deposits of 1890 and 1900 from Insulae I and XXIII, might have been related to.

Of the late finds from Insula IX, the most notable object is the ogham stone, dating to around the late fourth to fifth century. In addition, there are several fragments of North African cylindrical amphora (Bv), which could date any time from the early second to the later sixth century, two armlets, and finally two beads of possible fifth- to seventh-century date from Pit 1866 and Building 8, though neither was unequivocally Saxon (Fulford *et al.* 2006, 78, 127, 130–2).

So while Fulford states: 'from this gradually accumulating evidence, it is becoming harder to resist the notion that there was widespread occupation within the town walls in the period between the fifth and the seventh century', I might be more inclined to resist. Were it so thriving and long-lasting, the total lack of Eastern Mediterranean amphorae and jars (Bi, Bii, Biv, Bvi) and African and Phocaean Red-Slipped ware would be surprising. This kind of material is known in small quantities from a wide range of sites in western Britain (which have not seen such extensive excavation as Silchester), and larger collections come from sites such as Tintagel, Cadbury-Congresbury and Dinas Powys, as has been pointed out by Fulford (1989a). Such material is seen in Ireland as well, and given Silchester's post-Roman connections with the West as exemplified by the ogham script, the absence of these wares here is doubly surprising. I would be inclined to underplay the longevity or extent of the continued 'widespread occupation'. Recent programmes of work with radiocarbon dating in the early Migration period and the judicious use of Bayesian mathematics to model date ranges are proving invaluable in the current reassessment taking place of early Migration period sites (e.g. Bayliss *et al.* 2013), though human bones have tended to be used and the material from the late Silchester pits may have been too unpromising.

However late occupation in Insula IX continued, something certainly did happen afterwards on the site. The Basilica assemblage produced a significant quantity of post-Roman red-streaked glass (Allen in Fulford and Timby 2000, 314); a further fragment also came from the South-East Gate excavation (Price in Fulford 1984, 116). This distinctive type of glass is often found on seventh- to ninth-century Anglo-Saxon ecclesiastical sites (Cramp 2001, 70, 75; 2006), but, as Price and Fulford have noted, it is also being discovered at a range of post-Roman sites in the West as well: Wroxeter; Atworth and Box villas (Wilts.); and from the shrine at Uley (Glos.) (Price 1993, 189; Fulford 2012a). Fulford interpreted this as evidence for continuing occupation of the site until the seventh century, rather than as evidence for re-use of the shell of the Basilica. Alas, the excavations of Joyce and the Antiquaries will have scoured out much of the evidence that could ever have informed this debate.

Careful analysis of the nature of the robbing of the Forum-Basilica by Fulford revealed a potential structure to go with this material. While much robbing of the Basilica and the rest of the site was carried out down to ground level, one set of walls of the Basilica was robbed more thoroughly down below the ground surface. Fulford interpreted this as meaning it was later in date (why dig so deep if there was visible masonry elsewhere accessible?). The deeply-robbed walls comprised a potentially significant north–south hall with the colonnade of the Forum attached (Fulford and Timby 2000, 581; Fulford 2012a, 345). This is the possible building which might relate to the red-streaked glass. Close by, just to the south-west, excavations which have just commenced in Insula III have revealed two sherds of chaff-tempered pottery of fifth- to eighth-century date (Fulford *et al.* 2014, 10).

Fulford has developed these threads into a number of possible narratives: first, Tebicatos and his ilk lived on at Silchester, with the Basilica-site hall representing the 'palace' of a sub-Roman petty king. The conscious demolition of it could have been an ideological act, exorcising the building and what it represented, upon the incorporation of the area into the Saxon dominions (Fulford and Timby 2000, 581).

A second narrative saw the town as depopulated to make way for a monastery based in the Forum-Basilica upon the incorporation of the area into the kingdom of Wessex. He speculated that this could have been intended to act as a more neutral buffer between the competing kingdoms of Wessex, now focused on Winchester, and Mercia. The problem with this is explaining why a Saxon monastery would not have continued in occupation resulting in later material being deposited; and why, if it continued later, monumental masonry from the Forum-Basilica did not get incorporated into the new build of St Mary's in the twelfth century (Fulford *et al.* 2006, 281; Fulford 2012a, 347–8). The absence of an ecclesiastical house from the literary record also becomes more problematic as time goes on.

His third alternative narrative was that Silchester was the centre of a surviving Romano-British cult, as exemplified by the cult of St Alban (Gildas, *de Excidio* 10–11; cf. Yorke 2006, 120), and that this was suppressed by the Saxons upon incorporation into Wessex. He cited as a parallel Augustine of Canterbury's suppression of the cult of Sixtus venerated at an unknown location ('*in loco quodam*') (Sharpe 2002, 118, 123–5); so Fulford hypothesised 'a simultaneous suppression of town and church, *martyrium* or not, at *Calleva* in the period between the late sixth and mid-seventh century' (Fulford *et al.* 2006, 281–2).

I found the third narrative appealing, though upon further research 'suppression' is an odd reading of what Augustine was up to. The historical reference comes in the *Obsecratio*, an annex to the *Libellus responsionum*, which was a set of answers by Pope Gregory to a series of questions which had been sent to him by Augustine in A.D. 601. Concern had been raised about the local cult of a British Sixtus, because collective memories had failed and 'the elders' did not know anything of him from their forebears and no miracles were recorded at his burial site. This meant his saintliness was in question. Responding, Pope Gregory sent to Augustine relics of the homonymous Pope Sixtus II, to provide an alternative focus for veneration (Deanesly and Grosjean 1959, 28–32; Brooks 1984, 20; Crook 2011, 47). This is not the language of closure which might result in the clearing of the town and dissolution of a monastery, but of fostering and redirection. We do not know where the cult of Sixtus was: somewhere in Kent (Sims-Williams 1990, 62; Charles-Edwards 2012, 189), but even so, the evidence does not appear to be of the suppression of British Christian cults; so perhaps this third narrative is not as appealing as initially thought. Ultimately, the presence of the red-streaked glass does not necessarily imply an ecclesiastical establishment, and so the first suggestion of the sub-Roman petty king is probably to be preferred. The current Insula III excavations may provide additional evidence to weigh the alternatives.

FROM ROMAN *CALLEVA* TO ANGLO-SAXON SILCHESTER

The placename evidence seems to imply a clear break between the sub-Roman settlement and the late Saxon name for the village. When the site emerged into history with Domesday, it did so re-christened as Silcestre, followed by a number of variants (Silcestra, Cilcestre, Scilchestre, Sylkchester) until the advent of the Ordnance Survey and printed maps saw the occurrence of variant spellings of all placenames settle down (Grundy 1927, 231). The origin of its name has caused much discussion, dividing into those who think the name is Saxon-derived and a description of the old ruins; and more recently those who think it derives from a British-Latin root, evoking continued memory of the site's name throughout the Saxon period.

In the mid-nineteenth century Silchester was imagined as meaning the site fortified by Silius (Rickman 1840, 413), but later interpretations tried to disentangle the root of the first element. Davis interpreted *Selcaester* as 'the dwelling-house city', based on Anglo-Saxon *sel* meaning a seat/dwelling/mansion, and Anglo-Saxon *ceaster* being a city/town/fort (Davis 1898, 7–9). However, Harrison contended that 'city of houses' was almost a tautology, and agreed with Rhys that it was

probably derived from 'wood' (Welsh *cell-i*, Gaelic *coil*) becoming *cell*, i.e. *sell* (Harrison 1899). In a reply to Harrison, Davis pointed out that -castor was indifferently assigned to forts and towns, so dwelling-castor was a clarifying prefix and not a doubling up (Davis 1899). Gibbons entered the fray believing that both Davis and Harrison were probably wrong, contending it related to the Saxon word *sēl*, meaning good or pre-eminent (Gibbons 1899). In his work on Anglo-Saxon charters Grundy reported a suggestion he had had from Henry Bradley that Syl-Caester might mean 'Column Chester' (Grundy 1927, 231).

Ekwall came to dominate the study of placenames in the mid-twentieth century and believed Silchester derived from Anglo-Saxon *sealh* 'sallow', Anglo-Saxon **siele*, **sele* 'sallow-copse' (Ekwall 1960, 422; followed by Mills 2011). In contrast to Anglo-Saxon derivation, which was the majority opinion, Richmond and Crawford (1949, 26) thought the Cil- of the original spellings might be a survival from the original name, Cal-; however, Rivet and Smith thought that unlikely if the town had been abandoned for centuries (Rivet and Smith 1979, 292). This continuity idea has also recently been favoured by Coates who found the sallow theory improbable on ecological and philological grounds (Coates 1988; 1989, 149–50).

The discontinuity in the name of the site would have favoured a clear break in occupation; however, it is clear the argument surrounding whether the 'Sil-' element is derived from Latin or Saxon is not coming to an easy conclusion.

Archaeologically a small number of Saxon finds have come from across the site, though curiously most of them have potentially been fairly early in date. They include a seventh-century button brooch (Passmore 1934; Boon 1959, 83, C1); a seventh-century (?) glass palm cup (Boon 1959, 83, C3); several seventh- to tenth-century dress-hooks (Boon 1959, 83, C2); and a small Saxon knife of scramasax type (St John Hope 1907c, 487). The knife came from the 1906 season from near the spring and Public Baths, but none of the others has a close provenance. In terms of ceramics, an intrusive tenth- or eleventh-century sherd was found within the town in the tail of the rampart west of the South Gate, identified by Hinton (Fulford 1984, 75, 231–2). Collectively this material is not enough to suggest continuity of occupation from the seventh century to the Norman era; however, there may have been a Saxon settlement nearby a little to the south-east of the town. Unusually a couple of pieces of Saxon pottery were found during fieldwalking in LP 4600 (Exterior 22): a ninth-century and an eleventh-century sherd (Ford and Hopkins 2011, 26). The survival of this normally very friable pottery in the plough zone is impressive and might indicate an elusive settlement in the area. No geophysics was undertaken in this field, so it remains to be explored.

Historically Biddle wondered about there being continuity. Examining the way the parish boundaries of Silchester and Mortimer West End project out to form a northern arc around the town, he wondered if these did not reflect continuity from a much earlier estate or *territorium* centred on the town. However, while some Roman towns had a *territorium*, they were not usually of this size. Esmonde Cleary instead considered it might represent the boundary of a late Saxon estate focused on the old town (Biddle 1976; Esmonde Cleary 1987, 131). Unfortunately there are no Anglo-Saxon charters which mention the town's ruined walls, the nearest charter being for a wood in Tadley in the early tenth century (Grundy 1927, 172–7).

NORMAN AND LATER SILCHESTER

At the time of the Domesday Book, Silchester comprised two estates, each one given to the Bluet and Mortimer families to hold, though the two came to be combined under the Bluets. A detailed summary of the ownership and overlordship of the manor is provided by Page (1911, 52–3). Domesday contained no mention of a church at Silchester, but reporting of churches varied from area to area, so not too much can be read into this.

Not long thereafter the Amphitheatre was re-used. Probably just before the mid-twelfth century a palisade was constructed around the top of the stands and the southern entrance was refurbished to provide a defended enclosure. The arena, sunk 2 m below the surrounding ground level, meant that under normal circumstances this would not have been an ideal location for long-term residency, having poor drainage; but a large aisled hall was constructed within

it nonetheless (Fulford 1989c, 59–65, 175–6). Though the pottery lasts until the fifteenth century, all the sealed ceramic groups were mid- to late twelfth century, so Fulford considered the occupation to be brief (Fulford 1989c, 194) and associated it with the instability of the anarchy of Stephen and Matilda (1135–1154). From 1300 the climate deteriorated, so the lack of drainage within the Amphitheatre may have become more apparent encouraging a shift in the focus of the site.

It is in the late twelfth and thirteenth century that the archaeological evidence elsewhere picks up. First, the Church of St Mary the Virgin was constructed, probably as an aisleless nave in the late twelfth century, with a northern aisle then a chancel added around 1230 (Page 1911; Ditchfield 1929). It is likely that, after the abandonment of the hall in the Amphitheatre, a new Manor House was constructed nearby, usually assumed to have been in the same location as the current Manor House which encapsulates a sixteenth-century frame. Around this point, in 1204, King John licensed Ralph Bluet to construct an enclosure for a deer park (Hardy 1835, 221), the pale of which survives to this day on the slopes below the Church and Manor House.

It is around this date that ceramics start to be found in greater quantity to the south-east of the town, just outside the Town Wall. Hitherto only a single intrusive sherd of tenth- to eleventh-century pottery had been found near the South Gate (Fulford 1984, 75, 231–2), but late twelfth- to fourteenth-ceramics came from both the excavations at the South-East Gate and also a trench a little to the north-east of this gate. The latter showed possible evidence for a lean-to against the Town Wall, but otherwise there was no structural evidence of buildings; however there was some slight evidence that there might have been a deliberate attempt to fill up and consolidate the Town Ditch in this area (Fulford 1984, 77, 231–2).

This is also the time when other miscellaneous finds from the area start to pick up: a twelfth-century terracotta mask with dark green glaze, used as a lid (Anon. 1864a, 326); a twelfth- to thirteenth-century bronze or latten ball (Maberly 1889–91); a coin of King John from somewhere in Insulae IX–XII; and another of Edward I from an unspecified location (Fox 1895, 469); a plain fifteenth-century latten ring (Maberly 1889–91); the pommels of two swords, one with an inlay of silver and signs of gilding, both said to have been dug up at the site (Anon. 1859); a sixteenth-century knife (Fox 1897) and a Dutch glass vessel dug up from eight feet below the surface near the Amphitheatre (Anon. 1861, 70); a sixteenth- to seventeenth-century small globular *grelot* bell (St John Hope 1907c, 487); and a seventeenth-century Civil War iron rowel spur from near the spring (St John Hope 1903a, 423).

Ford and Hopkins, writing up the University of Reading fieldwalking in the area, identified 89 medieval sherds in their assemblages, many probably from manuring, though they noted two particular clusters. The first was on the slopes just to the east of the town in the Romano-British cemetery areas, predominantly across LP 6346 and 6530, encroaching into 4426 (junction of Exteriors 14, 15, 18 and 19), in areas where there was CBM as well. This raises the possibility that some of the geophysical features here are medieval rather than Romano-British, particularly some of the enclosure within LP 6346. This was interpreted as being evidence for part of the later Saxon and medieval village (though no elusive Saxon pottery was actually found here). This is not unlikely, though it does leave a curious gap between the Manor House, Church and Church Lane, and the pottery cluster which begins about 100 m further down the slope. The second notable concentration of pottery was down in the valley bottom by Silchester Brook in LP 4758 (Exterior 16) which Ford and Hopkins noted was in a similar topographical position to the moated site of Clapper's Farm 1.2 km to the south (Ford and Hopkins 2011, 26, 29).

Ultimately the village around the Church never appears to have been particularly substantive, and at some stage building shifted across to the present-day focus of the parish on Silchester Common to the west.

CREATING HISTORY FROM ARCHAEOLOGY

The sections above show just how problematic the creation of narratives in the absence of specific historical testimony is. Often radically different stories or alternative scenarios have been spun around the same evidence. This does not mean that the exercise should not be carried

out, creating hypotheses about the past and repeatedly challenging them is how we construct our own understanding of the past, so long as informed speculation is presented, valued and recognised for what it is.

The plans accompanying this chapter are similarly prone to change. While Hodge's Great Plan drawn for the Antiquaries provided us with a great overview of the town, it very much lacked a chronological dimension. FIGS 17.1 and 17.2 are offered here as working plans and hypotheses to provide an image of the developing townscape. Each will be prone to new data and interpretations, but they try to create that sense of change that the Antiquaries' plans lacked.

CHAPTER 18

CONCLUDING REMARKS

After many years excavating the interior of *Calleva*, followed by just one season outside, the Antiquaries' campaign finally ended in 1909. George Fox, its leading proponent had died, and St John Hope retired as Assistant Secretary after 25 years of service. At the Society's anniversary meeting on St George's Day 1910, the then President, Charles Read, surmised 'parting with Silchester was a sweet sorrow … It was much to be desired that the discovery and excavation of the cemetery would form an epilogue which should solve some of the problems presented by the excavated town' (Anon. 1911, 265). A century later the excavation of the cemeteries has still not taken place, beyond a few square metres by Corney, but the cumulative work of the aerial photographers, the fieldwalkers, the contractors engaged in excavations, evaluations and watching-briefs, and geophysics have combined to give a feel for what was beyond the walls. Large burial enclosures and an inhumation cemetery are now a certainty; potential areas of cremation are also highly probable. The nature of the mortuary landscape, one of the key themes identified in research agendas for the site, has been advanced, and concepts of how to detect pyre areas have been suggested which could be tested at other towns (Chapter 13). The site still remains an ideal test-bed for cemetery sampling with the full array of bioarchaeological studies and ancient DNA now available to us.

The various research framework reviews also identified 'the interpretation of the long linear earthworks radiating out from the town, particularly to the south, and the origins of the Late Iron Age *oppidum* itself' (Fulford 1996, 31). Here the array of earthworks surrounding the site has been enriched with the addition of new banks and ditches from the geophysical survey and the LiDAR. The chronological evidence for those immediately surrounding the town suggests a very different sequence to that conventionally iterated, placing the major Outer Earthworks into the late first or early second century rather than the Later Iron Age (Chapter 9). Contestation or corroboration based on fieldwork would be warmly welcomed, and selective sectioning where the earthworks were seen to intersect with other features in the geophysics, combined with a robust approach to radiocarbon sampling from various buried soils beneath the earthworks and other samples, would provide a suitable methodology to establish this. The linear earthworks, protecting access up onto Silchester Common rather than the Roman town, are even more problematic to date, and an Iron Age date is still only likely rather than confirmed (Chapter 10). Again, environmental sampling from under them to see if the pollen matches with the profiles found under Grim's Bank would be one way forward. Within the town itself the distribution of the material evidence from the time of the *oppidum* has been detailed and mapped (Chapter 11) and suggestions of the broader layout of the town made expanding from the two major excavations by Fulford, whose Insula IX report will transform knowledge in this area. In discussing both the early unenclosed *oppidum* phase and the presence of conquest-period Roman military material culture, the site has been placed firmly within its broader northern European rather than just British context (Chapters 11–12).

Within the interior, new facets have also been revealed: the development of the street-grid is seen to be gradual rather than one large event; and the extent of the late road drainage system has been mapped (Chapter 14). In terms of trade and industry, the internal zoning and the proximity of bakers and smithying workshops to the main east–west road and close to the gates are now apparent from the combination of an analysis of the Great Plan and the geophysical responses, providing a methodology that can be tested at other sites. It is also possible that the long-elusive

evidence for large-scale tanning may also have been discovered, though ideally this needs testing with ground-truthing. The scale of a tilery to the north, previously known from wasters, has also been elaborated upon (Chapter 15). Finally, the exterior has revealed what could be a circus to the north-west, though proof is lacking as yet (Chapter 16).

Overall the survey has tightened up the plan of the site, adjusted the location of some of the Antiquaries' building plans, and repositioned some of them from where Boon had 'tidied them up' on his plan of the town. Hodge's and Boon's plans have in their own ways both become icons of what a Romano-British town looks like, and yet both were static images masking the complex evolution of the townscape. The hypothesised phase plans presented here (FIGS 17.1–2) offer a very different image of a changing town, from the first tentative settlement then enclosed and regularised with the Inner Earthwork; this then expanded and broke out of these confines as Roman influence came to bear, and a new nascent grid began to give the town a more classical form and orientation. A multiplicity of earthworks was constructed until the town yet again retreated behind a new defensive line, monumentalised as the Town Wall. The picture is a lot more dynamic, incremental and adaptive than our common perception of Roman town layouts laid out in one go with the assistance of a military surveyor armed with a *groma*.

Along the way I hope I have shown the value of integrating now common geophysical surveys of entire townscapes with the rest of the archaeological data. Geophysical prospection should never be an end in itself but needs to be integrated with other datasets to advance understanding; when this is done it has significant potential to unlock new ideas.

In presenting this firmly within the story of the uncovering of evidence and the creation of knowledge, this volume shows how rapidly ideas and interpretations can change. The cut-off date for fieldwork included in this volume was 2013 and doubtless new discoveries will rapidly be made which will contest ideas floated here. This is what happens and is to be welcomed; indeed as this volume goes to press Fulford is embarking upon his own environs programme which will no doubt provide new information on many of the aspects touched-upon here. But however interpretations change, hopefully the separation of evidence and interpretation within this volume will make it a useful pointer to 250 years of excavation and survey which have been undertaken in the past and which still retain their value.

If any of this is new, then I have only been able to see it by standing on the shoulders of giants: Stair's early explorations; Joyce's, Monro's and Langshaw's devotion; Hilton Price's, Fox's, St John Hope's and Stephenson's invigoration of the Antiquaries to mount their massive campaign of work; Boon's sustained interest and synthesis; and Fulford's lifetime dedicated to work on the site which continues unabated. It is hoped that this volume will help open up the site to those unfamiliar with the huge complexity of the enormous fragmented literature surrounding it, helping them to chart their own path towards what interests them, and to frame their own research questions to explore in the future. Silchester may no longer be the place 'so little known' by Stukeley, but it is hoped this work certainly makes it more accessible.

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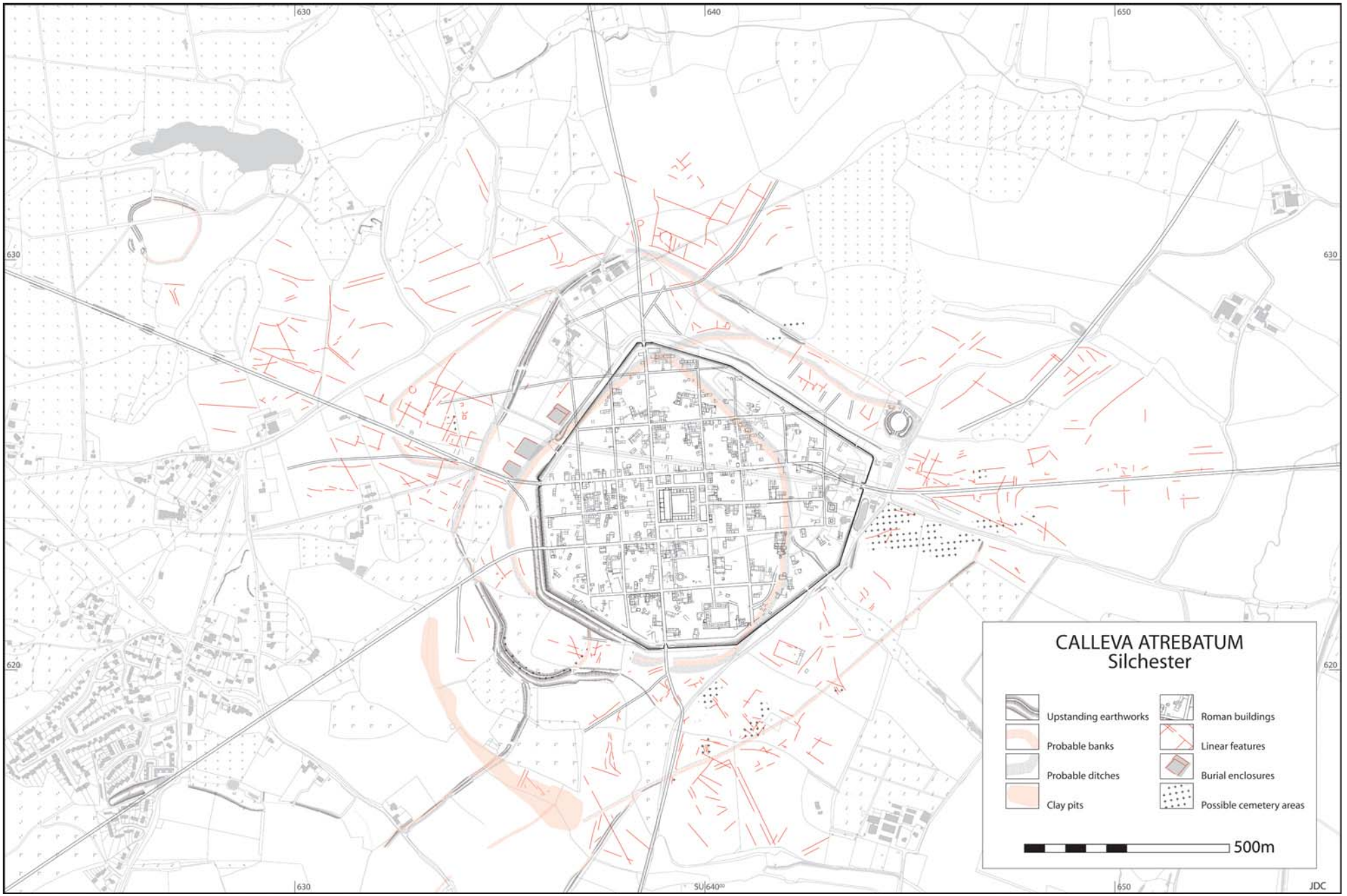
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CALLEVA ATREBATUM
Silchester
Upstanding earthworks
Probable banks
Probable ditches
Clay pits
Roman buildings
Linear features
Burial enclosures
Possible cemetery areas
500m
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