Stratton, Biggleswade: 1,300 years of village life in eastern Bedfordshire from the 5th century AD

Drew Shotliff and David Ingham

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1,300 years of village life in eastern Bedfordshire from the 5th century AD

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Other contributions by

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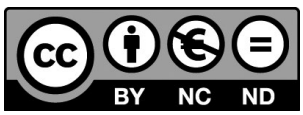

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The fieldwork was carried out between 1990 and 2001, with the post-excavation work beginning concurrently and continuing throughout the following two decades. A generation of archaeologists who passed through the Bedfordshire County Archaeology Service (now Albion Archaeology) in those years contributed to one aspect of the fieldwork or another, whether taking part in the excavations on site, tackling the mountain of finds that needed to be processed, or trying to tame the database and GIS software that were still in their infancy as analytical tools when the post-excavation process began. Too many were involved to name them individually, and too many are no longer with us, but the authors' sincere appreciation goes out to them one and all.

The authors would like to thank all the contributors whose reports collectively form this publication. Their specialist input was invaluable to the (non-specialist) authors, who claim sole responsibility for any errors in their text that may have crept in during the process of editing and synthesis. Thanks are also due to the numerous others whose specialist contributions in the earlier stages of the post-excavation programme fed into this overall end result. The project archive includes reports by Ruth Pelling on the charred plant remains, Alan Vince on ceramic petrology, Tony Roberts on the animal bones, and by Peter Marshall, Gordon Cook and Christopher Bronk Ramsey on radiocarbon determinations; the latter report played a particularly crucial role in establishing the phasing of the early–middle Anglo-Saxon remains. Anna Slowikowski did much of the preliminary work on the medieval pottery assemblage before her untimely death. Thanks are also due to Stephen Coleman, former Bedfordshire Historic Environment Record Officer, for making available his manuscript notes on the history of Stratton and its surrounds.

A few contributions in the later stages of the post-excavation programme also helped to nudge the authors in the right direction. John Blair's input was especially beneficial: his work on grid-planning at Stratton (reproduced in Figure 3.5) helped to identify a middle Anglo-Saxon field system out of what had previously been labelled as a problematic series of Roman enclosures. Historic England's refereeing process provided a wealth of useful input for improving specific aspects of the final publication, and comments from Duncan Wright on several of these were gratefully received. Thanks are also due to the *Feeding Anglo-Saxon England: The Bioarchaeology of an Agricultural Revolution* project team from the Universities of Oxford and Leicester (funded by the European Research Council under grant agreement No. 741751), specifically for their provision of additional radiocarbon dates, and in general for sharing some of the initial results from their work on Stratton. A final mention is due to Catrina Appleby, who copy-edited this printed volume; any remaining errors in the text are to be blamed on the authors.

Preface

Caveat lector. Despite the vast amount of work by a huge number of individuals which is duly acknowledged above, be under no illusion that this publication represents a comprehensive, definitive synthesis of more than 1,300 years of settlement at Stratton. Ten years of excavations have provided a fascinating insight into the development of a village from its origins as an Anglo-Saxon hamlet to its ultimate decline, but aside from the usual limitations on what archaeological evidence can reveal, funding shortfalls and the nature of the remains have still left considerable gaps in our understanding of the settlement, and many questions that remain essentially unanswered. This is hardly a situation unique to Stratton, but it is worth remembering while reading this publication that the constraints on fieldwork frequently resembled those of rescue excavations in the 1970s more closely than those of the decade in which this volume has at last been published.

While the level of financial input provided by Bedfordshire County Council and English Heritage into the early excavations was considerable, especially for an excavation that was designed before the advent of PPG16 revolutionised the planning system's approach to archaeology, the unanticipated extent and density of archaeological remains in the southern half of the site made it impossible to investigate them with the same thoroughness that could be employed in subsequent years. Not all features were excavated, including whole timber buildings and pit clusters: not only does this mean that the site phasing was established on sometimes tenuous and circumstantial evidence, but the recovered assemblages of artefacts and other finds – as large as they are in some cases – are unevenly represented across the excavations. The authors have endeavoured to take this bias into account in their interpretation of the remains, but the disparities still exist in the bald data, ready to trap the unwary researcher.

The duration of the fieldwork and post-excavation programmes has also led to an unevenness in the level and character of detail that was recorded. Steps were taken to ensure a consistency of approach, but changes in personnel over the years inevitably hampered this, while advances in computer technology meant that strategies were adapted in order to take advantage of options which initially had not been available. The sheer scale of the datasets involved should also not be overlooked, especially when the early excavations took place in a fundamentally analogue era: large archaeological excavations in advance of infrastructure projects abound in the present day, yet the scale of the 1991–92 excavations alone was exceptional at the time. The story of Stratton had to be patched together in a piecemeal fashion as the datasets were broken down into manageable chunks, and it was not until the post-excavation programme was in its latter stages that the pieces could be reassembled and a composite picture of the village's development began to shine through. One might speculate what different image of Stratton might have been constructed if the excavations had taken place 20 years later, with twice the budget and an ample dose of hindsight – but in this respect at least, Stratton is far from exceptional.

Despite all this, the authors believe that their interpretation of the evidence at Stratton as a whole is valid. Individual elements may well have been misinterpreted or incorrectly dated, but the overall picture that has emerged from the last 30 years of work forms a coherent narrative. We by no means wish to deter the reader, merely to encourage thoughtful consideration of the information presented, rather than blind acceptance. It is rare to be able to examine the bulk of an entire village's development from start to finish, and the evidence from Stratton offers much valuable insight into ordinary life in the English countryside. What we wish even more fervently, however, is that the publication of this volume will represent not so much an end as a new beginning – that researchers will use the data and evidence presented here to take the story further, revising and enhancing the image that we have tentatively elicited so far, and developing a wider synthesis of the pre-Industrial East Anglian countryside that lies beyond the scope of this publication.

About this publication

Structure

The publication is divided into two parts: a printed monograph, and a set of digital appendices.

Printed monograph: this volume presents the project background in Chapter 1, followed by a chronological summary of the evidence in Chapters 2–6. More detailed discussions of the building forms represented, the artefacts recovered, the archaeobotanical evidence, and the faunal assemblage are contained in Chapters 7–10 respectively, with a thematic discussion of the overall evidence in Chapter 11.

Digital appendices: full copies of the specialist reports on each type of dataset, plus artefact illustrations and the full phasing hierarchy, can be found on the Archaeology Data Service website at DOI: https://doi.org/10.5284/1090503.

Terminology and abbreviations

Archaeological features are referred to by their Group number, abbreviated to G1, G2, *etc*. Groups may represent either a single feature or several associated ones, such as the postholes of a building; where the latter applies, an individual feature within that Group is identified by its Feature number if required. Associated Groups are referred to as Land-use areas, abbreviated to L1, L2, *etc*.

Pottery mentioned in the text is usually referred to by its relevant fabric code within the Bedfordshire Ceramic Type Series (maintained by Albion Archaeology). Some types of other artefact are assigned an RA (Registered Artefact) or OA (Other Artefact) number: those prefixed with OA are specifically discussed or illustrated in the text, whereas numbers prefixed with RA relate to the number sequence within the archive.

ABG = associated bone group
HER = Bedfordshire Historic Environment Record
SFB = sunken-featured building

Figures and Tables

Illustrations and tables are numbered in their own unique sequence, *e.g*. Chapter 3 illustrations are numbered Figure 3.1, 3.2, 3.3, *etc*. and Chapter 3 tables are numbered Table 3.1, 3.2, 3.3, *etc*. Table and illustration numbers in the digital appendices are prefixed by the letter 'A' and their appendix number, *e.g.* tables in Digital Appendix 3 are numbered Table A3.1, A3.2, A3.3, *etc*.

Date of writing

While Chapter 11 was written in the year of publication, the preceding chapters were compiled as part of the draft publication submitted in 2016. Specific points within these chapters have been updated since then, but no systematic attempt was made to do so. The digital appendices contain original specialist reports which in some cases were written as far back as the 1990s; the year in which it was written is included in each.

Location of the archive

The Higgins Art Gallery and Museum, Bedford will be the repository for the physical archive of finds, site records and original post-excavation reports. Access to the digital archive can be gained via the Archaeology Data Service.

Summary

Plans for large-scale development on the south-eastern edge of Biggleswade, Bedfordshire, led to the planning of a major archaeological excavation to investigate and record the deserted medieval village of Stratton, which lay partly within the affected area. Following evaluation in 1990, open-area excavation began in 1991, but it quickly became apparent that the medieval village was surrounded by the remains of its Anglo-Saxon precursor. Thus began a decade of excavations, exploring the village's development from its origins in the 5th century AD through to its demise in the 18th. They covered 12ha in total, exposing roughly half of the medieval village and representing one of the largest excavations of an Anglo-Saxon settlement to have taken place in England, certainly at the time.

The village had modest origins, situated on previously uninhabited land and occupied by perhaps no more than two or three families at a time in the 5th and 6th centuries. Its expansion began in the 7th century, when the imposition of an extensive field system suggests the influence of the Church, and a greater and more complex array of domestic structures can be identified. A new field system was set out in the middle Anglo-Saxon period, before a radical change in the settlement's layout was imposed in the 9th century. This occurred at roughly the same time as the Danelaw was established in this part of the country, although a direct causal link remains elusive.

Changes to the layout of the settlement continued to be made throughout the Middle Ages, but its overall form had largely crystallised by the 11th or 12th century under the influence of the two manors which held land in Stratton. The capital messuage of the main Stratton manor is preserved as a scheduled site to the south-east of the excavation area. Part of another moated site and the two dovecots that were revealed represent a direct link with the medieval manors, while a substantial, high-status timber building may have been associated with one of their late Anglo-Saxon precursors. The other medieval buildings – mostly timber, though a few had masonry foundations – would have been inhabited by tenants of the manors. Documentary sources suggest that the resident lords of the manors gradually began to reduce the number of tenants in the late 17th or early 18th century, remodelling the village into the classic estate landscape of Stratton Park.

The excavations revealed a settlement that was constantly in flux, when viewed from the perspective of its life over more than a millennium, but which in many ways remained remarkably constant over that period. Stratton was not a wealthy village, existing as a dependent township within the parish of Biggleswade, and the focus of the excavations lay primarily on the homes and activities of the ordinary villagers rather than the social elite. This publication chronicles 1,300 years of a small, low-status farming community – the crops they grew, the animals they reared, and the goods they traded or made themselves.

The scale of the excavations means that only a summary of the data and a discussion of its significance can be presented within this bound volume. A range of more detailed specialist reports can be accessed online as digital appendices to this volume.

Chapter 1.
Introduction

Introduction

The Stratton Project was prompted by the residential development of *c.* 40ha of land on the south-east fringes of Biggleswade, Bedfordshire. It comprised a multi-stage archaeological investigation undertaken by the Bedfordshire County Archaeology Service (BCAS; now Albion Archaeology), with the fieldwork element conducted between 1990 and 2001. Evaluation of the overall development area led to approximately 12ha of detailed excavation in total, with each sequential main phase of development preceded by archaeological clearance. The archaeological remains were plough-truncated but in places appeared as a dense, multi-period palimpsest of features. In essence, the project has produced evidence for the evolution of a rural settlement from its creation in the early Anglo-Saxon period to its disappearance as a result of post-medieval emparkment.

Location, topography and geology

The parish of Biggleswade is located in eastern Bedfordshire, in the middle Ivel Valley within the Great Ouse catchment (Figure 1.1). The former township of Stratton occupied the eastern third of the parish, with the settlement itself lying south-east of the modern town, centred roughly at TL 2050 4380. It occupied a slight ridge running north–south (*c.* 40m OD) between the Ivel, which flows *c.* 2km to the west, and one of its minor tributaries. London Road, immediately west of the settlement, marks the course of the former Roman road from Baldock to Sandy, which went on to join Ermine Street at Godmanchester.

The solid geology beneath Stratton comprises the Woburn Sands Formation. The constituent sand may be loose or cemented into ferruginous sandstone, which provides a fairly soft and easily dressed building stone, suitable for walling (Moorlock *et al.* 2003: 9–11). The superficial geology of the Biggleswade district comprises glaciogenic deposits of the Lowestoft Formation, deposited by the Anglian ice sheet some 400,000 years ago; these consist of till (Chalky Boulder Clay) and associated outwash sands and gravels (Moorlock *et al.* 2003: 13–14). Stratton sits on one of the smaller spreads of the latter mapped near Biggleswade.

The local soils formed on the underlying sands and gravels comprise free-draining, sandy, argillic brown earths of the Sutton 1 association (Hodgson 1983). They provide good arable land which can be easily worked in both spring and autumn (Cranfield University 2014). To the east of Stratton there are calcareous clay soils of the Evesham 3 soil association, which are more prone to seasonal waterlogging, while alluvium occurs to the west in the Ivel Valley.

Project background and nature of the investigations

The site fell within the Stratton Residential Development Area (SRDA) – *c.* 40ha of largely arable land on the south-east fringes of Biggleswade, designated for development by Bedfordshire County Council. Stratton was already characterised by the Bedfordshire Historic Environment Record (HER) as a deserted medieval village (HER 518): aside from the place-name and documentary evidence, physical traces of the former settlement included a scheduled moated site; medieval pottery and tile in the ploughsoil; and cropmarks of a second moated site and a number of close boundaries.

The first phase of evaluation took place in 1990. This was just before the implementation of *PPG16: Archaeology and Planning*, which effectively established the principle of developer-funded archaeology; the initial evaluation was therefore slightly less extensive than the subsequent phases were required to be. Bedfordshire County Council owned the land, and paid for the evaluation and the initial stages of detailed excavation on Phase 1 of the development area, but when the scale and significance of the archaeological remains became clear, additional funding was sought from English Heritage to complete the Phase 1 work. Evaluation of the Phase 2 and 3 areas was again funded by the County Council; Phase 3 was largely devoid of archaeological remains and required no further work, but a developer-funded excavation of the Phase 2 area was carried out. An indication of the relative size (by context count) of the principal episodes of fieldwork is shown in Table 1.1.

Anticipating the large scale of the proposed work, the original project designs (BCAS 1990; 1992) highlighted the need to investigate when the settlement was established and abandoned, how it shifted across the landscape through time, how it was laid out, how it was organised both socially and economically, and how it fitted into the regional settlement pattern.

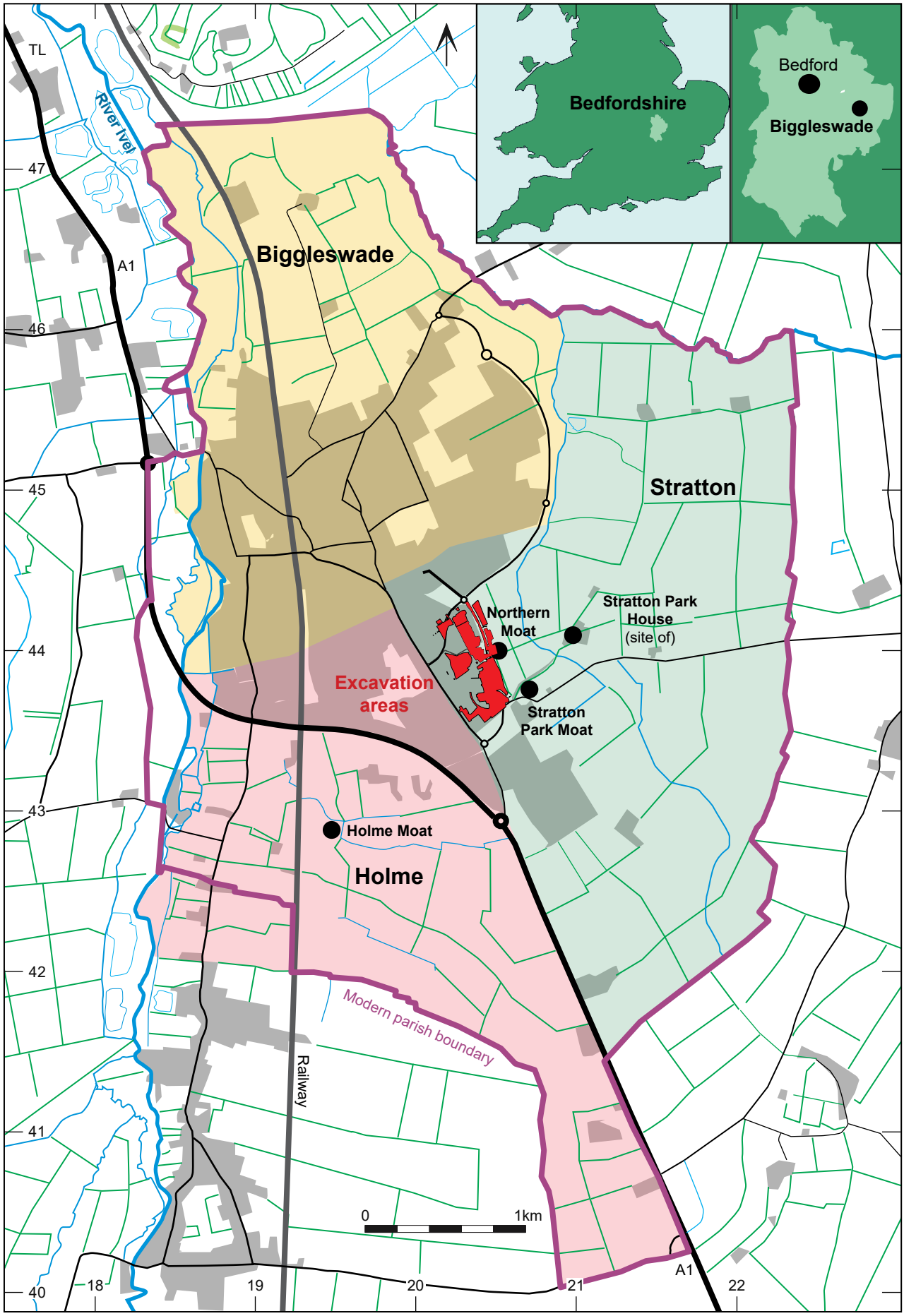

TL
River Ivel
47
A1
46
45
44
43
42
41
40
18
19
20
21
22
A1
Biggleswade
Stratton
Northern Moat
Stratton Park House (site of)
Stratton Park Moat
Excavation areas
Holme Moat
Holme
Modern parish boundary
Railway
0
1km
Bedfordshire
Bedford
Biggleswade

Table 1.1: Date and relative sizes of the individual excavations

Project code	Year	Open-area excavations	Contexts	% of total
SV91	1990–91	Phase 1A housing and infrastructure	15,965	62
SV95	1995	Phase 2 leisure centre	4355	17
SV401	1995	Phase 2B housing	671	2
SV429	1996	Phase 1B social housing	2113	8
SV472	1997	Phase 2 gas main	250	1
SV505	1998	Phase 2 spine road	734	3
SV598	1999	Phase 2 local centre	869	3
SV698	2001	Phase 2 tree belt	937	4
Total			**25,894**	

Nature of the post-excavation analysis

With English Heritage funding, the results of the initial phase of excavation (SV91) were assessed for their analytical potential and an updated project design (UPD) was produced (Albion Archaeology 1994); appended to it were the results of the evaluation of the Phase 2 area. The UPD established an analytical framework for the subsequent developer-funded elements of the investigations, the most important of which were also subject to assessment – SV598 (Albion Archaeology 2000) and SV698 (Albion Archaeology 2003).

From the outset, it was recognised that a single publication would be preferable to a series of individual reports on each element of the investigations. Accordingly, integrated, synthetic analysis of the data was deliberately deferred until all fieldwork was complete, in order that continual updating of work could be avoided. The final element of the fieldwork within the SRDA had been scheduled to take place in 2007, but when the proposed Biggleswade Medical Centre development ultimately did not take place, Albion Archaeology (2010) submitted a project design to English Heritage for the completion of the integrated analysis and dissemination of the results of the fieldwork. Plans had previously been drawn up for a concise, one-volume monograph accompanied by a digital version on the Archaeology Data Service (ADS) website that contained hyperlinks, to allow an element of non-linear usage by giving access to a web-mounted digital resource. However, it was subsequently realised that the benefits of digital publication could be enjoyed with a less-complex, more cost-efficient approach (e.g. Piercebridge: Cool and Mason 2008). The project design therefore envisaged a printed monograph (this volume), with the bulk of the data available through the ADS website as digital appendices.

Figure 1.1 (opposite page): Site location, showing former dependent townships of Biggleswade and the modern parish boundary

Nature of the phasing structure and contextual hierarchy

The lengthy sequence of excavations at Stratton generated a total of 26,603 context numbers. As a result, it was necessary to place them within a contextual hierarchy in order to help analyse the data, and also to help the reader get to grips with what was found. This programme of contextual analysis was undertaken over many years by an even greater number of people, and spanned the period in which the systematic use of computer databases and GIS software developed from being revolutionary new techniques to fundamental tools of post-excavation analysis. Increasing familiarisation with these new techniques, and periodic changes of personnel, meant that the resultant contextual hierarchy lacked a certain element of standardisation over time. However, this is most apparent at Group level, whereas the Land-use areas, Phases and Periods by which this volume is primarily structured received an overhaul during the final stages of contextual analysis, in order to make them more consistent and intelligible. A brief description is given below of what each of these hierarchical elements symbolises:

G (Group): this ranges from a single deposit within the overall fill of a ditch, to the construction cut and

all the fills of a ditch; from the construction cut of a single posthole, to the cuts and fills of all the postholes that formed a single building. Only the most significant Groups are referred to in the text, but a full copy of the structural hierarchy is contained in Digital Appendix A1.

L (Land-use area): collections of broadly contemporary and spatially coherent Groups, e.g. a farmhouse, its associated pens and enclosures, and any pits or outbuildings within them; or a broad expanse of agricultural or industrial activity that occupied a relatively discrete part of the landscape. Some of the Land-use areas represent individual farmsteads, which are likely to have had single owners (or tenants), whereas others are likely to have been inhabited or used by a number of families.

Phases: divisions of Periods in which greater precision has been possible, in some cases, to place particular remains within the settlement's chronological or stratigraphic hierarchy. Period 4, for example, is split into Phases 4, 4a and 4b. Within the overall chronological span of Period 4, the features within Phase 4a are earlier than those in Phase 4b, based primarily on the available stratigraphic evidence. This does not necessarily mean, however, that Phase 4a represents the first half of Period 4, and Phase 4b the second, and the features in either phase could be earlier than, contemporary with, or later than those features assigned just to Phase 4, for which there was less-precise dating and/or stratigraphic evidence. Where only two Phases are present within a Period, however (i.e. Periods 6 and 7), Phase 6a does indicate a range of activities that were broadly earlier than those in Phase 6, and those in 7b were broadly later than those in Phase 7. The relationship between Periods and Phases is given in Figure 1.2 in the form of a stratigraphic matrix.

Periods: broad, chronological divisions. The dates that are given are no more than approximations, based on artefactual and scientific dating, and numerous features such as wells and buildings may have remained in use during subsequent Periods. These divisions are meant to give an overall indication of how the settlement at Stratton developed, rather than an exact date at which the developments occurred – the dating evidence is insufficiently precise in the vast majority of cases to allow that.

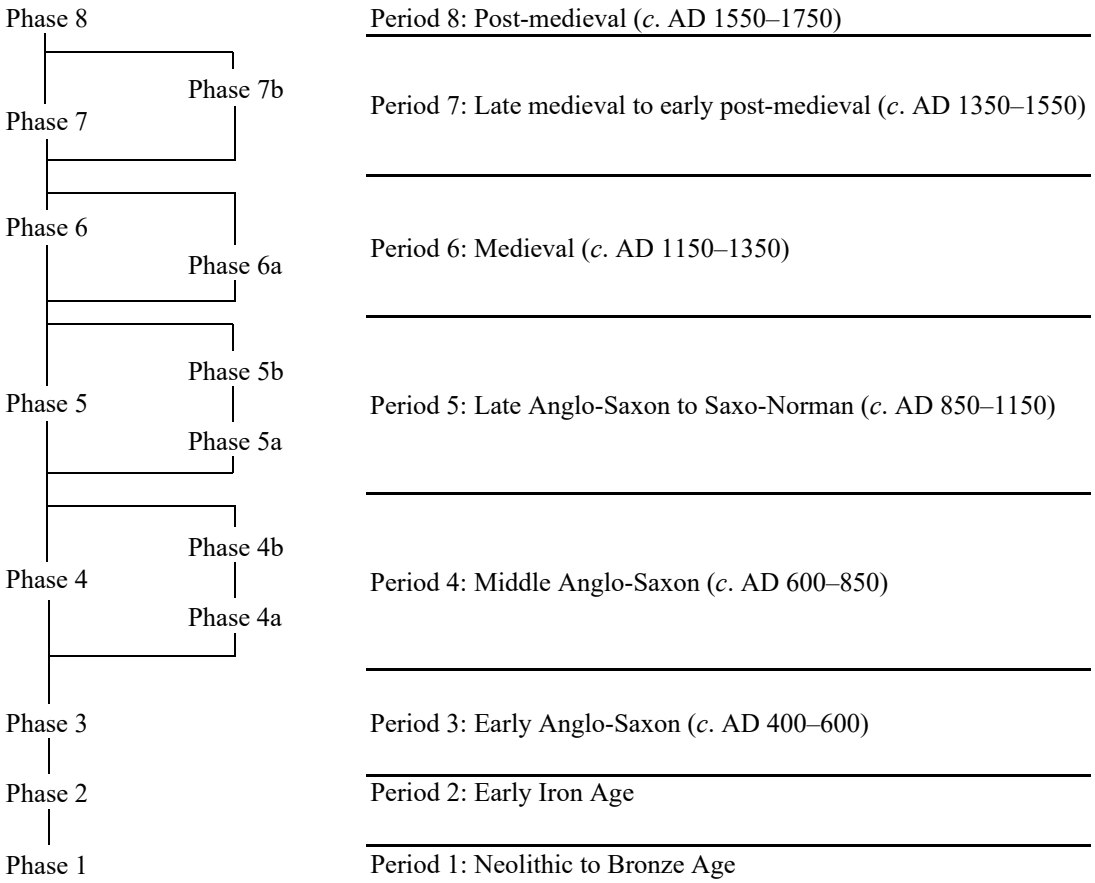


Figure 1.2: Contextual phasing hierarchy

Archaeological background

Earlier prehistoric

Within Bedfordshire, significant quantities of Palaeolithic flintwork, mainly hand-axes, have been recovered from gravel deposits associated with the River Great Ouse and the River Lea, but fewer such discoveries have been made in the Ivel Valley. Amongst them, however, is a 'bout coupé' hand-axe from Sandy Quarry, *c.* 2km north of Biggleswade – a form typical of sites associated with Neanderthal activity in Britain before the Last Glacial Maximum (Stephens *et al.* 2010). Similarly, dispersed spreads of lithics from Sandy Quarry (Dawson and Maull 1996: 60) are the only material of Mesolithic date within the Ivel Valley.

The start of the Neolithic period is traditionally associated with the introduction of agriculture into the British Isles. Initially, at least, it is likely that settled farming augmented, rather than replaced, the existing hunter-gatherer economy. Remains of Neolithic settlement are very sparse in the Ivel Valley, usually consisting of small scatters of flint tools or occasionally small clusters of pits. Sandy Quarry again provides evidence for this: two pits there produced 850 sherds (11.3kg) of Carinated Bowl pottery, the first appearance of which has been dated to *c.* 3500 BC, together with a variety of flint artefacts and animal bone (Albion Archaeology 2015: 21). Broom Quarry to the west of Stratton also sees earlier 4th-millennium BC occupation in the form of scattered pits and tree-throws containing earlier Neolithic artefacts (Cooper and Edmonds 2007: 42).

A small cluster of late Neolithic pits was identified next to Potton Road, north-east of Biggleswade (Jones 2009), and a Neolithic cursus (Abrams 2010), with a cluster of probable Bronze Age ring-ditches at its eastern end (Field 1974: 71), is known on the gravel terrace to the north of the town. A Bronze Age ring-ditch and associated cremation burials have been excavated within the King's Reach development, immediately north of Stratton (Albion Archaeology 2016: 18–19), while there is a cropmark of a presumed prehistoric ring-ditch (HER 16159) to the south of Dunton Lane.

Iron Age and Romano-British

Settlement in the middle Ivel Valley increased throughout the Iron Age, as the area developed into a densely settled, intensively managed landscape in the late Iron Age / Romano-British period.

A well-ordered late Iron Age / Romano-British landscape with an extensive system of boundaries, droveways and settlements has been revealed at Broom Quarry on the gravel terraces to the west of the Ivel (Cooper and Edmonds 2007: 147, figs 5.2 and 6.4). A similar settlement density has been revealed within Sandy Quarry to the north of Biggleswade (Albion Archaeology 2015; Dawson and Maull 1996: 62–3), with the Roman small town of Sandy lying beyond this. The town was established in the late 1st / early 2nd century (Dawson 1995) on the Baldock to Godmanchester road, which passed within *c.* 200 m of the later settlement of Stratton and probably followed a late Iron Age (or earlier) communication route. Roman Sandy probably developed from a late 1st-century BC Catuvellauni political centre; Baldock itself was also one of the Catuvellauni's principal *oppida* (Williamson 2010: 50).

Anglo-Saxon

There are different views on both the date of the Tribal Hidage and the identity of the overlord who had it drawn up (Featherstone 2001: 29). However, what the document neatly illustrates is the emergence of the Ivel Valley into history as part of the 7th- to 9th-century Mercian hegemony (Hart 1977: 44–7). The Gifla – i.e. the tribal group occupying the Ivel Valley – are assessed at 300 hides, the smallest unit of assessment in the document and the same as that of the Hicca who occupied the tributary Hiz Valley to the south. Both were part of Middle Anglia, the collective name for a group of some 15 smaller territorial units forming a broad frontier zone from the Wash to the River Thames, between the kingdoms of Mercia proper and those of the East Angles and the East Anglo-Saxons (Dumville 1989: 127). Bede tells us that Peada, son of the Mercian king Penda, was sub-king of the Middle Angles in AD 653–55 and that the Irish missionary priest Diuma became the first bishop of the Middle Angles and Mercia at that time. A separate diocese for the Middle Angles was established in AD 737 with the see at Leicester (Dumville 1989: 130–1; Hill 1981: figure 238).

The unique, early 9th-century gold coin of Coenwulf (AD 796–821) found on Biggleswade Common, to the north of the town, should also be considered in this political context. Its unusual, excellent state of preservation suggests it was in near-mint condition when it went into the ground (Williams and Cowell 2009: 36). Hart (1977: 58) notes how earlier Mercian kings made an annual royal progress between Tamworth and London, and it is tempting to speculate that the loss of the coin was associated with just such a journey by the king or one of his ealdormen along the former Roman road that crossed the Common.

Although not as extensive as for the preceding late Iron Age / Romano-British period, there is plentiful archaeological evidence for the people recorded in the Tribal Hidage. In addition to Stratton itself, a number of significant sites have been found on the gravel terraces between Sandy and Biggleswade.

Early Anglo-Saxon burials are known from the environs of the Roman town of Sandy, although the circumstances of their discovery during 19th-century railway building make it difficult to assess their significance and, in particular, their relationship to the earlier settlement. At least 13 Anglo-Saxon urns, dated to the 5th/6th centuries, and a number of other artefacts are known to have come from Sandy (Kennett 1970). There is little middle Anglo-Saxon evidence from the town, however, and by the late Anglo-Saxon period the focus of settlement had switched to the west bank of the River Ivel, close to the parish church. As a market and hundredal centre it was Biggleswade, rather than Sandy, that developed into the middle Ivel's only medieval urban centre.

Evidence for Anglo-Saxon settlement on the eastern margins of the ancient parish of Northill has been found at Ivel Farm (within Sandy Quarry), *c.* 2.5km north-west of Stratton (Albion Archaeology 2015). The settlement comprises a dispersed, north–south-aligned spread of sunken-featured buildings (SFB) and pits, covering a distance of *c.* 450m on the gravel terrace west of the River Ivel. Artefact dating indicates that the excavated part of the settlement, at least, did not survive into the middle Anglo-Saxon period. Further north within Sandy Quarry, late Anglo-Saxon settlement evidence includes a large timber building, fence lines, paddocks and rubbish pits. Hurdle linings preserved in a series of intercutting pits are likely to have been associated with flax processing or fish/eel trapping (Dawson and Maull 1996: 63–5).

At King's Hill (within Broom Quarry) in Old Warden parish, two prehistoric monuments became the focus for 7th-century activity in the form of a small community cemetery and a rectangular building, interpreted as a shrine or mortuary structure (Cooper and Edmonds 2007: 205–7, figs 6.5 and 6.6). A late Anglo-Saxon burial (radiocarbon-dated to cal. AD 878–938) was also inserted into another barrow, *c.* 500m to the north-west (Cooper and Edmonds 2007: 71). These remains lie *c.* 3.5km west of Stratton, on the west side of the River Ivel.

Medieval

A scheduled ringwork or castle sits on a low gravel island to the east of Brookland Farm, *c.* 350m west of the Ivel in Old Warden parish, surviving partly as a cropmark and partly as an earthwork. It has a circular platform, 30–35m in diameter and surrounded by two concentric rings of ditches, with two baileys on its western side. Limited investigation has suggested a 12th-century date for the structure (Addyman 1966; Petre 2012: 70–1). The ringwork would have simultaneously controlled river traffic and an east–west routeway that led to a ford near Ivel Mill in the centre of Biggleswade.

Historical background

Paul Courtney†

A more in-depth version of this abridged section, fully cross-referenced to the primary sources, is to be found in Digital Appendix A2.

Introduction

Stratton and Holme were both hamlets or townships, each with its own field system, within the parish of Biggleswade, the manorial and parochial centre. It is hoped that setting Stratton in the context of this wider estate complex will shed more light on its development. A wider perspective should also partly compensate for the poor survival of early-modern manorial records, and especially the rarity of surviving deeds for all three townships in Biggleswade parish, a problem often associated with dependent townships. However, Bedfordshire is fortunate in the wide range of published primary sources, such as monastic cartularies, produced by the county historical society. The earliest map to cover the entire Biggleswade parish in detail is the tithe map of 1838, at which time all three townships were fully enclosed except for a few remnant strips in Biggleswade. This map does not give the separate township boundaries, but these can be readily determined from the pattern of land-ownership, field names (e.g. Holmside in Biggleswade), and the topography of the commons and field boundaries.

Domesday estates

The largest holder of land in Stratton at the time of Domesday Book was Ralph d'Isle, who also held land in the Biggleswade and Holme townships (Table 1.2). Archbishop Stigand of Canterbury held these lands in 1066. Both Stratton and Holme were chapelries of Biggleswade in the post-Conquest period, which suggests that all three townships were once closely linked manorially, presumably forming either a single estate or a fragment of an even larger estate.

It has been suggested on the grounds of township size that Stratton was the original centre of this estate and was replaced after the Conquest by Biggleswade (Dawson 1994: 131–3). The ecclesiastical organisation argues against this idea, however, as it would have been highly unusual for Stratton to slip from parochial to chapelry status. The smaller size of Biggleswade may reflect a degree of economic specialisation, with its emphasis on meadowland apparent in both Domesday and the Hundred Rolls. Domesday records meadow there for 10 ploughs and 5s income from hay; it should be noted that meadowland was often valued at six times the worth of arable in 13th-century extents. Domesday Biggleswade was assessed for geld at 10 hides compared

Table 1.2: Domesday lords (with their antecessors in 1066)

Biggleswade 10 hides	**Stratton 7 hides, 1 virgate**	**Holme 7 hides, 1½ virgates**
Ralph d'Isle 10h (Ab Stigand)	Ralph d'Isle 4h (Ab Stigand)	Ralph d'Isle 2h (Ab Stigand)
	Walter of Flanders 1 h, 1v (Leofwine, thane)	Walter of Flanders 1h (2 sokemen)
	Walter Gifford 1h, ½ v (3 sokemen)	Wm of Eu 3v (Aelfeva, Askell's man)
	Countess Judith 3½ v (Alwin, Edward's man)	Hugh de Beauchamp 1v (1 sokeman under Askell)
		Nigel of Aubigny 1h, ½v (7 sokemen)
		Countess Judith ½h (Alwin-Edward's man)
		Countess Judith 1v (Godwin- Edward's man)
		Alwin, King's reeve 1½h (Aelfric & Leofmer – beadles)

Table 1.3: Taxation and ploughs on Ralph d'Isle's Biggleswade estate in 1086

	Hides	**Ploughlands**	**Tenant ploughs**	**Demesne ploughs**	**Demesne hides**
Biggleswade	10	10	7	3	5½
Stratton	4	8	7*	-	-
Holme	2	5	5	-	-

* 'and could be an eighth'

with the 7¼ hides of Stratton and 5½ hides of Holme. It also had 5½ hides of land in demesne with 3 demesne ploughs and two mills, although some of this demesne, the tenantry of which comprised 7 villeins, 10 bordars and 3 slaves, may have lain in the townships of Stratton and Holme. As in some other counties, for example Huntingdonshire, the demesne was hidated and not tax-exempt. The ploughland has been a matter of long controversy. Roffe (2000: 149–65) argued that it was an assessment of the extent of the taxable arable (warland) made in 1086, with the intention of measuring the potential for increased future taxation or geld. Certainly, the close coincidence of figures for ploughs and ploughlands on the estate of Ralph d'Isle tends to suggest there was little or no hidden land, as is sometimes the case with land held by sokemen or freemen (Table 1.3).

Bordars were peasants with little or no land who largely subsisted through wage labour. The association of a high proportion of bordars and slaves is typical of major manorial centres and represents the workforce on the demesne (Faith 1997: 70–5, 83–8). A high proportion of bordars is also found at Stratton, but these may have found work on the lands of the soke tenants there (Table 1.4). An association between high numbers of bordars/cottagers and small manors, which were heavily reliant on paid labour, was noticed by Kosminsky (1956:

Table 1.4: Recorded peasantry in 1086 (all estates)

	Biggleswade	**Stratton**	**Holme**
Villeins	7	11	18
Bordars	10	11	3
Slaves	3	-	-
Named (?free) men	-	-	3
Total	**20**	**24**	**32**

256–82) in his classic study of the north Bedfordshire hundred rolls.

The structure of Domesday Book leaves little doubt that Biggleswade was the ancient caput of these three townships; less certain is whether it was once part of an even larger manor. Certainly, it gave its name to the hundred of Biggleswade, first recorded in Domesday Book. Hundredal meeting places could be on the edge of early territories rather than at their administrative centres, though there is no evidence to suggest that possibility here. In addition to the above-mentioned holdings, there were a number of small manors within Stratton and especially Holme. These all had in common the fact that they were held prior to the Conquest by sokemen or other freemen, all of whom seem to have had the right to sell or grant their lands. Sokemen are virtually absent from the three townships in the Domesday inquest, though this is most likely a reflection of the way Domesday was compiled – often ignoring free subtenants – rather than being due to their eviction (Walmsley 1968; Roffe 1990: 332). Even the 1066 figures may have underestimated the number of sokemen; for instance, the lands in Stratton of Leofwine, a thane, are likely to have been subtenanted.

Large numbers of the Bedfordshire sokemen appear to have held their lands from the crown in 1066 (Abels 1996: 20–2). Late-Saxon sokemen, in addition to paying rent or dues to a lord, were also often commended to a second lord who could act on their behalf in the courts; it was the successors of these commended lords who laid claim to the royal sokemen in Bedfordshire after 1066. This opportunistic slicing-up of the royal soke resulted in many Bedfordshire estates or townships, including Biggleswade, having such a multiplicity of small manors in Domesday. The sokemen presumably found their freedom to sell their lands curtailed after the Conquest, though they probably continued to owe suit at the hundred court. Brown and Taylor (1989; 1991) have traced back some of the numerous moated homestead sites in north Bedfordshire, an area of dispersed woodland-pasture settlement, to Domesday soke holdings.

Later manorial history

Biggleswade manor

Henry I granted the manor of Biggleswade to Bishop Alexander of Lincoln in 1132 (Table 1.5). In 1215, King John granted the Bishop of Lincoln the right to have a weekly market and three to four days of fairs on all his manors. Henry III confirmed John's grant in relation to Biggleswade and Thame (Oxon) in 1227, and at the same time closed the market at Old Warden (Beds), a potential competitor to Biggleswade. A survey from *c.* 1220–28 records 54¾ burgages, held by 38 named burgesses, on the bishop's estate in Biggleswade, as well as two smithies and a 'place' or empty plot. An account roll of 1509–10 records 123 burgages paying a shilling each – £6 3s in total – with no decayed rents recorded. This growth is most likely to have taken place in the last three quarters of the 13th century, before the demographic crisis of the Black Death (Harvey 1991: 6–7). The absence of decayed rents in 1509–10 may indicate that Biggleswade was able to recover well in the late Middle Ages, taking advantage of its favourable

Table 1.5: Descent of Domesday Book fees

Domesday Book fees	13th-century fees	Manors/lands
Ralph d'Isle	Bishop of Lincoln	Biggleswade manor with hamlets
Countess Judith	Huntingdon	Stratton manor
Countess Judith	Huntingdon	Sutton manor with hamlets
Walter of Flanders	Wahull	Langford, Stratton and Holme manor
Nigel d'Aubigny	Abingdon Priory	Holme and Stratton lands
Walter Gifford	Pembroke	Millow, Dunton and Stratton manor
Hugh Beauchamp	Beauchamp	Holme (tenanted by Abingdon)
William d'Eu	Pembroke	Holme
King	King	Holme: sergeantry land

location on the Great North Road with access to the London food market.

It seems likely that Biggleswade's urban development represents a deliberate attempt by the Bishop of Lincoln to capitalise on its role as a hundredal and market centre, favourably sited for commerce on a branch of the Great North Road. The place-name element *-wade* in 'Biggleswade' indicates a ford, while 'Stratton' derives from Old English elements meaning the settlement on the 'street', i.e. a Roman road (Mawer and Stenton 1926: 101–2). A field in the north-east corner of Holme township, adjacent to the Great North Road, bears the name Gallows Ditch (first documented in 1546); this presumably marks the site of a gallows, a reminder of the bishop's former juridical authority. The site marks the convergence of the bounds of Biggleswade, Holme and Stratton (Cole 1917: 139–41). The bishops' urban foundation at Biggleswade, like those of many secular lords, took advantage of a potentially favourable site and the growing population and economy in the 12th and 13th centuries (Britnell 1978; 1981; Beresford 1967; see Godber 1969: 50–62; Beresford and Finberg 1973: 65–6 for Bedfordshire). The only evidence of a formal charter is the claim in 1294 by the burgesses of Biggleswade that they could decide the inheritance of their burgages. The conclusions of an investigation ordered by the bishop are unrecorded, but freedom of inheritance is a major characteristic of burgage tenure and was the norm in post-medieval Biggleswade.

The bishop's manor of Biggleswade also included lands in Stratton and Holme (see below): the survey of *c.* 1220–28 notes 37 customary tenants holding 22 virgates in Biggleswade and 16 customary tenants holding 11¼ virgates in Stratton and Holme. A notable feature of the early 13th-century survey is the marked expansion of customary tenants from Domesday, when only seven villeins are recorded, implying, at most, seven standard holdings or virgates (commonly 20–40 acres (8–16ha) each). This would seem to imply that about 15 virgates of demesne were transferred to tenant use. Population expansion and partible inheritance probably accounts for the further population increase and subdivision of virgates. However, it is possible that the Biggleswade population was not as high as these figures suggest and that the newly tenanted demesne was largely taken up by burgage holders. Indeed, the offer of land in the open fields may have been one of the attractions to lure burgage tenants to settle.

In 1547, Bishop Henry of Lincoln exchanged the manor of Biggleswade with Edward VI for other lands. At this time, Biggleswade parish (including Stratton and Holme) was stated to have 550 housling people or communicants (Brown and Page-Turner 1908: 6–7). In 1563, 166 families are listed in the bishop's returns for the parish, including Stratton and Holme.

The Huntingdon manors: Sutton and Stratton

The lands held by Countess Judith, the Conqueror's niece, formed the honor of Huntingdon in the 12th and 13th centuries; the honor was dismembered through forfeitures in the 14th century (Farrer 1923–25: ii, 296–301). The Huntingdon estate had two separate manors, with lands intermingled with the Biggleswade estate: some of these lands may have been acquired from another post-Domesday lord, thus explaining the overlapping manorial organisation in Stratton. The manor of Sutton had attached hamlets in Stratton, Holme and Potton, and passed through several families in the 12th and 13th centuries (Farrer 1923–25: ii, 383–7; Page 1912: ii, 247).

The subsequent history of Stratton 'hamlet' is obscure, although the Enderbys (see below) appear to have held it in the 15th century. Account rolls of 1425–27 upon the death of the Earl of Westminster, then the feudal overlord of Sutton manor, record two tofts, two orchards and 40 acres (*c.* 16ha) of arable in Stratton. This closely coincides with the statement of a 1488 inquisition upon the death of Richard Enderby that the same holding then comprised a capital messuage and 40 acres.

There was also a separate Stratton fee in the honor of Huntingdon, held in 1242–43 as one knight's fee by Robert del Hoo, who married Amia Rikespald. The 1297 taxation indicates that Stratton manor was held by Margaret Rikespaud, who in 1322 granted a messuage, 2 carucates and 28 acres (11ha) of land, 12 acres (5ha) of meadow, and £3 15s 6¼d of rents in Stratton, Millow, Dunton, Biggleswade, Holme and Potton (clearly held of several manors) to William Latimer. The fact that this was done by foot of fine suggests that she did not hold by knight's tenure. In 1381, upon the death of William Latimer's grandson, the manor of Stratton comprised 160 acres (*c.* 65ha) of arable worth 26s 8d per annum, and rents of assize of 33s 4d.

A number of de Strattons, presumably free peasants, appear in such sources as charter-witness lists from around 1200, though it is far from clear that this was a surname at this stage as opposed to statement of the place of habitation. John de Stratton, a free peasant who held lands in Stratton in 1276, and Matilda de Stratton, listed under Holme in the 1297 taxation, are potential ancestors (Fowler 1919: 15). John de Stratton is recorded as being a yeoman of the Black Prince in the years 1359–64 (Emmison 1944), rising from the peasantry (albeit the highest stratum) to high office probably as a reward for military service during the Hundred Years War, first under the Black Prince and then Richard II.

The inheritance of the manor of Stratton in 1403 by John Neville (Baron Latimer) reunited Sutton and Stratton manors in the same hands again. The Enderby family

was leasing the manor in the 1390s, and acquired it in perpetuity sometime between 1412 and 1427, appearing to have dwelt actually in Stratton. An estate that was granted in 1450 to John and Maud Enderby of Stratton comprised a messuage, two tofts called 'Whitbredes', 200 acres (81ha) of land and 20 acres (8ha) of meadow in Stratton and Holme; it is clear that these lands were held freely, but the lordship to which they were attached is not clear. The Enderby family thus dominated Stratton through both their manorial possessions and their permanent residence there. The manor passed by marriage to the Pigott family in the 16th century before being sold to the Andersons in 1588, whose chief residence was at Eyworth, Bedfordshire. The freehold of the above lands, and probably the customary tenants, appear to have been acquired by Sir Edmund Anderson II prior to his death in 1638; certainly the 1838 tithe map and accompanying apportionment indicates that the manor of Biggleswade no longer had any lands in Stratton. In 1764, the Stratton estate was purchased by the Barnetts, who were the chief landowners in the 19th century (Page 1912: ii, 211; Webb 1985); the smaller 'Sunderland' estate in Stratton was held in 1838 by Sir George Cornwall and the Rev. Arthur Annesley.

Ecclesiastical organisation

For the purposes of ecclesiastical governance in medieval England, dioceses were subdivided into archdeaconries, which in turn were subdivided into rural deaneries, groups of parishes similar in size to hundreds or wapentakes. The origins of this system are unclear, but it appears to have evolved in the late 11th or 12th century and was recorded in the *Taxatio Ecclesiastica* of 1291. The boundaries of the archdeaconries and rural deaneries in eastern England generally corresponded with units of the secular local government hierarchy (Winchester 1990: 69–75). In accordance with this pattern, the archdeaconries within the diocese of Lincoln mostly corresponded with shire boundaries, as was the case with the Archdeaconry of Bedford; there was also a close correspondence between the rural deaneries and hundredal boundaries in neighbouring Huntingdonshire (Huxley-Robinson 1992: 11, figs 1–2). However, the situation in Bedfordshire was quite different (Godber 1969: 37, figure 11), and it is likely that the residual influence of early minster church territories was a determining factor in the establishment of the boundaries of the rural deaneries.

The middle Anglo-Saxon minster at Elstow was centred on a *parochia* whose boundaries were later preserved in the rural deanery of Bedford (Haslam 1986). Similarly, the rural deanery of Fleete may represent the territory of Flitton minster, for which late 10th-century documentary and archaeological evidence exists (Crick 2007: 91–100; Wardill and Shotliff forthcoming). Eastern Bedfordshire – essentially the drainage basin of the Ivel Valley – was covered by the rural deanery of Shefford, at the centre of which lay Biggleswade. It is tempting to see this rural deanery as an echo of the boundaries of a minster *parochia* centred on Biggleswade.

There can be little doubt that Biggleswade already had a church at the Conquest, despite the lack of explicit documentation: the question is whether it was a minster church. There is little in the current street plan of Biggleswade to indicate the presence of a former minster precinct, but the church is perched over the River Ivel near an important early east–west routeway – a common topographical location for a minster church. Archaeological work within the graveyard identified four phases of burial, with the graves on a variety of alignments (Jones 2009; Winter 2009: i): this suggests a prolonged period of use, although without radiocarbon dating the longevity of the sequence remains unknown. There are also reports of undated burials 100m south of the present-day graveyard; again, it is unknown whether or not these represent burials within a wider minster precinct that subsequently shrank under the pressure of urban development.

In 1132 the church was granted to the Bishop of Lincoln as a prebend to support one of the cathedral canons, a fate of many old minsters (Blair 2005: 364). The fact that Biggleswade was held by Archbishop Stigand in 1066 may also be an indication of its value, given his reputation for acquiring personal wealth at the expense of the church: Smith (1994: 206) estimates that at least one third of his landed interests were accumulated from ecclesiastical houses. Domesday Book records Stigand as holding 361 manors, the great majority in East Anglia but with seven estates in Bedfordshire, including Biggleswade and the largest manors in Stratton and Holme.

The appointment of vicars to serve the church of Biggleswade is recorded from 1277 onwards, and Biggleswade is recorded as the most valuable church in the Ivel Valley in the late 13th-century *Taxatio Ecclesiastica*. In 1379, the clerical poll tax records a rector (Robert de Stratton) as well as a vicar and eight chaplains (one of whom presumably served Stratton), indicating a collegiate structure; this may reflect its pre-Norman status as a minster, or it may have been a 12th/13th-century attempt to provide for an expanding urban population.

Among the sources of income specified for the vicar was the right to any gifts made to the 'trunks' or coffers of Stratton and Biggleswade, implying the existence of a chapel at the former (*Rot. Graves* (Davis 1925: 209)). In 1317, Thomas de Northfleet, a canon of St Paul's, left money for the repair of the chapel of St Mary in Stratton; a papal indulgence was granted to those who gave alms towards the repair of the chapel. There is no

contemporary evidence, however, that the chapel of St Mary had any burial or baptism rights.

Economy and demography

Medieval economy and social structure

In the absence of any agricultural accounts for the Middle Ages, the most revealing document for the agrarian economy is the taxation on moveables. Uniquely, the local rolls of assess for 1297 survive for several of the Bedfordshire hundreds and towns, listing crops, stock and other moveable goods. Furthermore, they have been published in translation by Gaydon (1959). The rolls, however, present several problems. The returns for crops and livestock are clearly too low to be realistic (Gaydon 1959: xx–xxi, xxxi), leading Willard (1934: 84–5) to suggest that the crop figures only included crops available for sale after allowance for subsistence. Meanwhile Gaydon suggests that evasion is the explanation for the unrealistically low livestock figures. The taxation data, while a valuable source, still needs to be used with caution.

The roll for Biggleswade vill only partially survives, while Holme has been combined with Astwick. Nevertheless, a few features clearly emerge about the rural economy of the Biggleswade estate. The most important crops in Biggleswade, both on the bishop's demesne and on the tenants' lands, were rye and drage (an oats/rye mixture) and barley; no mention is made of wheat. Hay and/or straw are also listed on the demesne (10s of hay) and on three out of eight peasant holdings; Domesday valued the hay on the d'Isle manor of Biggleswade at 5s. This cropping regime seems to reflect Biggleswade's geology, with its alluvial and gravel soils. The demesne had 30 sheep and 10 lambs, while the largest of the tenant flocks recorded comprised 16 sheep and 4 lambs, though these are likely to be gross underestimates given what is known of medieval stocking rates in general.

By contrast, Stratton's roll survives in full. The manorial lord William Latimer is listed under Sutton, where he has the highest valuation of the surviving rolls at £25 4s 6d and a sheep flock of 91 'muttons'. The demesne in Stratton appears to be held at this date by Margaret Rikespaud and is valued at £3 5s 2d. Wheat predominates in Stratton, followed by drage and only small amounts of rye, which may suggest richer soils. Hay is only noted (valued at 2s) on the holding of Margaret Rikespaud, although hay and/or forage are recorded on some of the larger holdings. No sheep are mentioned at all on Margaret's holding, and the largest tenant flocks were 11 ewes with 4 lambs and 12 ewes with 4 lambs respectively. The pattern in Holme and Astwick is similar. Peas were grown on most holdings across all three townships, while mares, cows and oxen are also widely recorded. Although few medieval manorial account rolls survive from Bedfordshire, analysis by Campbell *et al.* (1993: 46, 54, 68) suggests that at least the eastern fringes of the county lay within the area regularly supplying London with grain in the late 13th and early 14th century.

Analysis of the 1297 taxation reveals a binary distribution of wealth within Stratton and its neighbours (Tables 1.6 and 1.7). This undoubtedly reflects the basic division evident in Domesday between villeins and sokemen, although the distinction had no doubt become more complicated in the interim due to an emerging land market and manorialisation. A dower agreement of 1508–09 for Anne Enderby indicates that some of the holdings in Stratton manor, almost certainly free or sokeland, were over 100 acres. The largest customary

Table 1.6: Analysis of the 1297 taxation in Stratton

	<10s	10s–14s 11d	15s–19s 11d	20s–29s 11d	30s–39s 11d	>40s
Bishop's tenants	1	7	-	1	-	2
Other tenants	-	8	1	3	3	2
Total	**1**	**15**	**1**	**4**	**3**	**4**

Table 1.7: Analysis of 1297 taxation in various vills

	<10s	10s–14s11d	15s–19s11d	20s–29s11d	30s–39s11d	>40s
Holme and Astwick	4	10	6	2	3	7
Biggleswade	-	4	1	1	-	3
Stratton	1	15	1	4	3	4

Table 1.8: Lay subsidies: number of tax payers with assessment

	1309	1332
Biggleswade	37 (£6 12s 0d)	39 (£5 2s 6d)
Stratton	21 (£2 5s 8¾d)	29 (£2 9s 8½d)
Holme and Astwick	24 (£3 17s)	34 (£3 9s 4d)

Table 1.9: Taxation rankings of Stratton within Biggleswade hundred

	1309	1332
Wealth	13	14
No. of taxpayers	12=	9=
Total no. of vills	14	15

tenant (i.e. a villein) of the bishop in Stratton was Geoffrey Palmer, whose estate was valued at 39s 8¾d and who was a resident of Stratton.

Taxation rankings and demography

In 1297 Stratton was ranked 11th out of 15 taxation vills in Biggleswade hundred in terms of monetary assessment. Unfortunately, the lists of taxpayers are incomplete for several vills. Tables 1.8 and 1.9 summarise lay subsidies for the years 1309 and 1332 (Hervey 1925: 68, 112), in which Stratton was ranked, on numbers of taxpayers, equal 12th out of 14 vills in the hundred, and equal 9th out of 15 vills respectively. No records survive for Biggleswade or Stratton from the 1377, 1379 or 1381 poll taxes. In the 1334 lay subsidy, Stratton was assessed at £2 13s 8d, ranking 14th out of 15 vills in the hundred (Glasscock 1975: 1–2).

The *Nonarum Inquisitiones* of 1342 record contraction of arable lands in 49 out of 111 vills in the county. However, only two vills out of ten in Biggleswade hundred – Potton and Tempsford – had any reduced arable (*frisc*) recorded (Baker 1970), just as there is evidence elsewhere for increased leasing of demesnes and for a growth in pastoral farming in the later Middle Ages. However, Bedfordshire did not experience much late medieval or Tudor enclosure, and deserted villages are rare. Lay landlords who kept a proactive interest in their lands were able to increase their wealth in the 15th century, even though Bedfordshire slid down the rankings of richest counties between 1334 and 1515. Its population recovered slowly after the 14th-century crisis compared to other areas, and as late as 1563 may not have exceeded that of 1334 (Harvey 1984: 178–92; Cornwall 1959: 264).

Unfortunately, the detailed returns from the 1524/5 lay subsidies do not survive for Biggleswade hundred. Total hundred returns suggest it fell midway in wealth between the poorer north-west of the county and the rich Chiltern edge (Sheail 1998: i, 61–2; ii, 9–11). In 1666, 98 out of 168 households listed in Biggleswade had only one hearth, compared to 9 out of 20 in Holme and 4 out of 18 in Stratton (Table 1.10). Of the 168 Biggleswade households, 50 were excused (discharged) from paying tax on grounds of poverty and a further five for being empty. The reduction of households from 168 to 151 in Biggleswade between 1666 and 1670 is probably due to evasion or recording differences rather than any real decline (Table 1.11). However, in the case of the 1670 hearth tax for Holme it is explicitly recorded that seven 'several habitations' had been pulled down before Lady Day 1669. The published 1670 hearth tax recorded 15 tax payers in Stratton as well as two persons receiving constant alms who were exempt from the tax (Marshall 1933: 78). The 1670 hearth tax listed 56 hearths in total in Stratton, of which 17 belonged to Sir John Cotton.

Using a multiplier of 4.25, the 1670 tax suggests a population of 72 in Stratton and 60 in Holme, or 132 combined. These figures can be compared with those of 80 and 64 (144 combined) recorded for the two townships in the 1801 census (Table 1.12). Stratton and Holme experienced a slight estimated population growth of 9% between 1670 and 1801. However, this was during a period of marked general increase in population. Marshall, using the same 4.25 multiplier on the 1670 figures, estimated an overall increase in Bedfordshire population of just over 60% between 1670 and 1801 (Marshall 1933: 13–14). However, he made an

Table 1.10: 1666 hearth tax statistics

	Households listed	Taxpayers	Discharged/empty households	Hearths, inc. exempt	One-hearth households
Biggleswade	168	113	50/5	339	98
Stratton	18	15	2/1	61	4
Holme	20	15	3/2*	47	9

* one forge and one newly built house not charged

Table 1.11: 1670 hearth tax statistics

	Households listed*	Taxpayers	Receivers of constant alms	Discharged households	Hearths**	One-hearth households	Population estimate
Biggleswade	151	125	15	11	311	70	*c.* 642
Stratton	15	15	0	0	56	2	*c.* 72
Holme	14	10	4	0	33	2	*c.* 60

* includes those on constant alms
** includes those exempted from tax

Table 1.12: 1801 census statistics

	1801 houses	1801 empty houses	1801 families	1801 population
Biggleswade	298	3	241	1650
Stratton	8	0	9	80
Holme	11	2	12	64

error in taking the 1801 population figure for Stratton as the combined figure for both Holme and Stratton, thus suggesting a falling population (Marshall 1933: 27, 78).

Stratton

A foot of fine of 1199–1200 relates to land lying in the North and South Fields of Stratton. However, only one other reference naming a field in Stratton has been found – a deed relating to land in Stratton's North Field in 1336–37 (Fowler 1919: 20). It thus seems likely that it had a two-field system like Holme, though the evidence is not conclusive. Surveys of the manor of Stratton were made during the reign of James I (i.e. 1603–05) and in 1639; these surveys have unfortunately been lost, but both documents are said to have been made with a view towards enclosure, implying that the township was still unenclosed in 1639. The inquisition post-mortem of Sir Edmund Anderson II (d. 1638) refers to land in the South Field (formerly Ash Field), which may be a further indication of open-field survival. In 1802, Stratton was said to be fully enclosed except for 2 acres belonging to Lord Spencer; this can be identified with the 3 acres (*c.* 1ha), tenanted by Mr Rudd, which were said to lie in Stratton field in the 1722–44 survey.

The medieval documentation sheds little light on the layout of the village. As noted above, a chapel and an adjacent cottage (granted to Harrold Priory) are documented. In 1275, a coroner's court recorded that Robert le May of Stratton died while digging with a pickaxe into the wall of a building in William le Bole's courtyard, in order to demolish it. Unfortunately, the wall collapsed upon him and he died two days later (Hunnisett 1961: 64). The Huntingdon manor of Stratton almost certainly had a manor house in the village by this time, perhaps even with a late Anglo-Saxon antecedent, though it was probably occupied only on an occasional basis by its early lords. In the late 13th and early 14th century it was held by Margaret Rikespaud, but probably not by knight's tenure.

The Enderby family's acquisition of the main Stratton manor around the end of the 14th century seems to have marked the transition to a permanent lord living in the village (Hervey 1925: 115–16). The larger of the two moated sites in Stratton was probably the site of the main Huntingdon manor of Stratton; the more northerly moat may perhaps have been associated with the Sutton sub-manor in Stratton, though this is far from certain. The exchequer reported in 1568 that a labourer digging in a tenement called the Well Yard in Stratton had found a hoard of gold coins, including 36 nobles, 13 half-nobles and a single quarter-noble. The treasury noted the finding of a further coin hoard in 1770, which came from the former site of Stratton manor as it stood in 1636.

The 1838 tithe map shows Stratton House lying within its park, with an outlying huntsman's house and kennels behind a hedge. The lodge later became Kennel Farm and was described as 'mainly built of timber with thatched and tiled roofs' in a 1910 sales catalogue, though it had largely been rebuilt by 1930 (Webb 1985: 14). Both the Stratton moats had been turned into copses by 1838. Lines of trees in the landscape look as though they were positioned to improve the view from the mansion as well as act as wind breaks. Beyond the park, the rest of the Barnett estate was divided between

Table 1.13: Numbers of Holme and Stratton wills 1600–1799

	1600–24	1625–49	1650–74	1675–99	1700–24	1725–49	1750–74	1775–99
Holme	-	2	-	9	1	1	1	1
Stratton	1	1	3	10	6	4	2	3

four tenant farms, with two further farms on the 'Sunderland' estate. Stratton manor had a water mill in 1436, but it is not otherwise recorded.

Conclusion

Very little research has been done on early modern agriculture in Bedfordshire. This no doubt reflects the fact that few probate inventories have survived, though a surviving suite from the Jacobean period has been published (Emmison 1938). Apart from the dispersed settlement area of the north, the county was dominated by a champion landscape of villages and Midlands-style open fields. Enclosure was mostly late, achieved by Acts of Parliament in the late 18th and 19th centuries (Batchelor 1813: 217–75; Stone 1794: 25–7). Bedfordshire seems to have been a prosperous county of mixed agriculture in the early modern period, with London providing an important market. In the early 18th century, Daniel Defoe noted its export of wheat and barley malt to London as well as the shipping of wheat from Bedford to King's Lynn and on to the Netherlands. He also recorded the importance of the lace and straw-hat-making industries in maintaining prosperity in Bedfordshire. One branch of the Great North Road ran through Biggleswade, which was an important droving route to London, bringing livestock from the grasslands of the Midlands and the fen country (Cole and Browning 1962: (2), 113, 123, 130).

A published collection of Bedfordshire inventories for the years 1617–20 suggests that cereals were the dominant crops, with a few pulses and flax. Yeoman farmers commonly held 20–30 cows and 50–60 sheep, the latter folded in the open fields. Thomas Stone in 1794 noted the fattening of calves for the London veal trade in the south of the county, a practice which Thomas Batchelor in 1813 stated as being concentrated in the Biggleswade area. Stone also noted the importance of butter production in the southern part of the county, again for the London market. By contrast, Batchelor noted dairying as being concentrated in the Woburn and Ampthill area in the west of the county (Stone 1794: 28–9; Batchelor 1813: 525–6). After the coming of the railway in 1850, market-gardening became a major part of the local agrarian economy. An article in the *Biggleswade Chronicle* of 25 July 1947 reported that a lot of flax used to be grown on Stratton Farm, and that some of the pits used for retting could still be seen.

The desertion of Stratton and shrinkage of Holme seem linked to improvement of the landscape in the 17th and 18th centuries. Both townships had resident lords and developed into 'closed' villages, where the lord had a great deal of social and economic power. Such closed villages tend to be marked by their tight control of settlement laws, a lack of squatting, and an absence of non-conformist chapels (Holderness 1972; Mills 1980).

The dating of enclosure and desertion in Stratton is unclear. The 1670 hearth tax suggests that the main process of village desertion post-dates this document, though it may already have been underway. By 1801, the census suggests that the number of tenant houses in the township had halved since 1670. Table 1.13 analyses the chronological distribution of wills in the Bedfordshire Records Office index assigned to Stratton and Holme. Unfortunately, it is uncertain how much this pattern reflects the extent to which wills were differentiated from Biggleswade, the site of the parish church, while the pattern of wills may also be a reflection of social and age structures rather than overall population. If it is real, the post-Restoration increase in will-making may reflect increased prosperity and an increased use of wills.

The pattern of Stratton wills (Table 1.13) is suggestive of a gradual decline in the population from the end of the 17th century to the middle of the 18th century, though these patterns should be treated with caution. Nevertheless, the Cotton family would seem to be the likely candidates for the remodelling of Stratton into a classic estate landscape in the late 17th or early 18th century, although it may have taken several decades to achieve. Certainly, the account given by the Lyson brothers indicates a long-term policy of buying out freehold and copyhold tenancies. The former Stratton Hall Farm (listed Grade II and now a hotel), with its 17th-century timber element, may represent a sole survivor from the original village layout.

There is no indication that Stratton and Holme were particularly struggling in the later Middle Ages or early modern period. Nevertheless, they were subsidiary townships to a large manorial and hundredal centre, as a result of which they were small in size and population. This was probably a major factor in facilitating both enclosure and depopulation, though these are not inevitably linked (Yelling 1977: 51–2, 218). The most

important factor of all in their desertion appears to be the motivation of individual resident-landlords in both Holme and Stratton. Despite the complex medieval lordship patterns, ownership was split by the early modern period between the enclosers and a single lesser landlord in each township. The social structure and ownership patterns are difficult to work out in detail, but there appear to have been a number of large farms already in existence in both Holme and Stratton. These probably owe as much to their origins as large soke holdings as to the later land market. Consolidation of the townships into large and mostly compact estates was thus made relatively easy. At the other end of the spectrum, at least in Holme, there appear to have been a number of relatively small landholders, whether genuine cottagers or small copyholders, who were vulnerable.

Landlords consolidated and enclosed their estates for a mixture of economic and aesthetic reasons (Clay 1985: 177–85). There has been a long debate, indeed since the time of early modern enclosures, as to what effect enclosure had on the cottagers and rural poor. The most comprehensive recent reassessment by Snell (1985: 138–227) came to the conclusion that cottagers did indeed suffer overall through both loss of common rights and the paucity of wage labour. In some areas the impact of enclosure was undoubtedly mitigated by opportunities for wage-work in industry, but this was not the case for males in the Biggleswade area. In both Holme and Stratton, enclosure seems to have led to the disappearance of the small copyhold farmer from the landscape, while cottage tenants disappeared entirely from the landscape of Stratton. The 1838 tithe apportionment still records that some Biggleswade cottages had rights of common, but the post-enclosure landscape was dominated by large consolidated tenant farms, no doubt seen as a better long-term investment by the landowners. It also seems likely that there was a shift after enclosure, at least initially, towards more grass for dairy production for the London market.

The destruction of cottages was probably also encouraged by a desire to escape the imposition of poor rates. Thomas Stone in 1794 noted, 'There is a scarcity of comfortable cottages for the poor in this county [i.e. Bedfordshire]; and the farmers are more studious to prevent this very necessary class of men making settlements upon them, than to provide them useful and profitable employment' (Stone 1794: 56). Social reasons may also have played a part, notably the desire to rid townships of a social group seen as potentially dissolute and/or radical.

The 1801 census figures point to population stagnation rather than depopulation in both Holme and Stratton. However, the population statistics may hide a change within the lower strata of these townships' populations from permanently resident small farmers or cottagers towards household and farm servants who lived-in. Many people in the early modern period served as servants for only part of their life cycle, prior to marriage. Certainly, both townships seem to have seen the targeted displacement of the cottager and small landowner. It is unclear how closely it was linked to the process of enclosure as such, as the main documented episode of cottage clearance in *c.* 1666–69 occurred a couple of decades after enclosure. Both phenomena should be seen as elements in a wider process of landscape 'improvement' motivated by a mixture of economic, social and aesthetic concerns. The landowners and their stewards deliberately destroyed the local village community marked by its socially disparate inhabitants and communally run open-fields. In their place emerged a landscape of the country house and its park, surrounded by discrete and enclosed tenant farms.

By 1830, service had largely died out in southern England, a process which contributed to the subsequent rural population decline as farm workers clustered in the small towns and 'open' villages (Snell 1985: 67–103; Armstrong 1981). The 1838 tithe map shows that Stratton, with its resident lords, continued to be a cottage-free zone until two pairs of estate cottages were built in 1889 and 1907 (Webb 1985: 8–9, 25, 32). These brick-built cottages reflect the improved standards of accommodation often provided for farm workers from the middle of the 19th century. This was a reaction to both the increasing scarcity of rural labour, associated with the growth of urbanism and industry, and landlords' new awareness of their moral duties as a result of the Evangelical Revival within Anglicanism (Horn 1987: 147–90).

Chapter 2.
Pre-Settlement Landscape

Neolithic to Bronze Age (Period 1)

Despite the size of the area that was excavated, little evidence was found of activity predating the Iron Age (Figure 2.2). The single feature dating to the Neolithic period (L1) is suggestive of temporary settlement, but the Bronze Age remains (L2) appear restricted to funerary activity. The recovery of a Mesolithic axe from late medieval deposits points towards earlier activity within the overall landscape, but no features from this period could be identified.

The only feature in L1 was a large, irregularly shaped, flat-bottomed pit or hollow with a deeper, 1m-wide pit near its centre (Figure 2.1:a). Small quantities of early–middle Neolithic Peterborough Ware were present throughout its fills, as well as a flint assemblage that appears to be contemporaneous.

A heavily truncated ring-ditch (Figures 2.1:b and 2.2) exposed near the northern edge of the excavated area (L2) is likely to be Bronze Age in date, although this is based on purely typological grounds – one small sherd of late Bronze Age / early Iron Age pottery was the only artefact recovered. The ditch formed a slightly oblate circle in plan measuring *c.* 15m in diameter along its outer edge; its circuit appeared to be unbroken, although truncation by later features may have masked a causeway to the south-west. No contemporary burials were identified in association with this round barrow, although a late Anglo-Saxon / Saxo-Norman burial was dug into the ditch (L42, Phase 5b); the only burial dating to the Bronze Age was an un-urned cremation *c.* 300m to the south (Figure 2.2), the bone from which has been radiocarbon dated to 1740–1500 cal. BC (95% confidence, 3320 ±40BP, SUERC-30101).

Early Iron Age (Period 2)

The earliest remains relating to widespread settlement date to the beginning of the Iron Age, though these were fragmentary and occurred at a relatively low density (Figure 2.2). Most of the remains were located in the central part of the excavated area, including a four-post structure G5205, fence line G800, and a thin layer of soil G303 that may have accumulated through occupation activity. There were also two cremation burials G6017 and G6018, the former urned, which were revealed in a trial trench near this central area.

The contemporaneity of the Period 2 features is uncertain, due to a lack of resolution in ceramic typologies for this period and the recovery of most of the datable artefacts from just a few features. These features may in fact represent a low level of activity stretching from the late Bronze Age to the middle Iron Age.

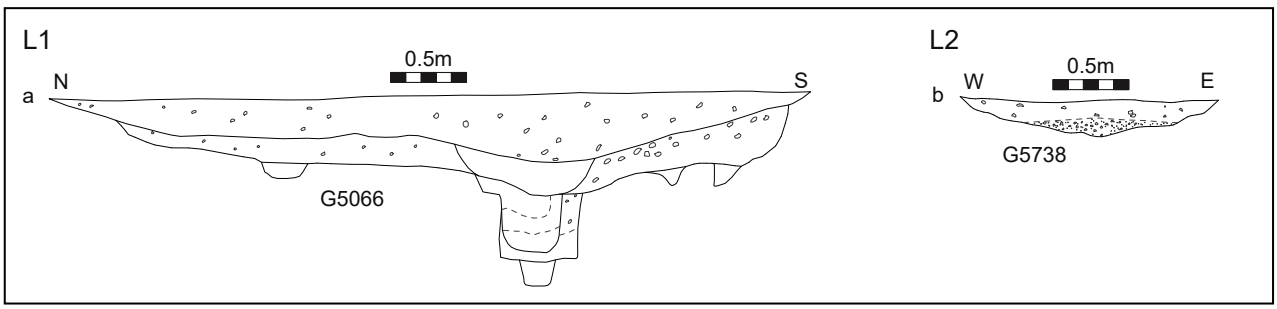


Figure 2.1: Selected section drawings from Period 1 and 2 features

Figure 2.2 (opposite page): Plan of all excavated remains from Periods 1 (Neolithic to Bronze Age) and 2 (early Iron Age)


TL
0
100m
1:2500
L2
b
44200
a
L1
44000
L2
43800
Period 1
Period 2
20200
20400

Chapter 3.
Early–Middle Anglo-Saxon Settlement
(Periods 3–4: *c.* AD 400–850)

Period 3 structural narrative (early Anglo-Saxon: *c.* AD 400–600)

The origins of the medieval village of Stratton lie in the early Anglo-Saxon period. At least ten sunken-featured buildings (SFBs) were built during the first two centuries of Anglo-Saxon control (L5), while the presence of hearths G233 and G3535 point towards the presence of further structures (Figure 3.1). There were also a water-pit and two wells, one of the latter (G5252) displaying evidence for repeated repair (Figure 3.1:b), plus a number of other pits that may have had a variety of uses.

Determining the density, longevity and continuity of this early Anglo-Saxon occupation is complicated by the imprecise nature of the dating evidence. Ceramic typologies are poorly refined for the first half of the Anglo-Saxon period, with an end date of *c.* AD 850 for many of the fabrics; the assignment of features to Period 3 rather than Period 4 is based primarily on a predominance of pottery fabrics A16 and A18 (Appendix A3). Although these are also conventionally dated to AD 400–850, radiocarbon dates for residues adhering to three potsherds in these fabrics indicate a date of *c.* AD 350–640, offering circumstantial evidence that these were generally earlier than the other early–middle Anglo-Saxon fabrics (Tables 3.1 and 3.4). Only one of the features in Period 3 contained any securely stratified finds that were suitable for radiocarbon dating – part of an articulated dog skeleton from the base of SFB G3163, which produced an intriguingly early radiocarbon date of cal. AD 260–540 – although three further radiocarbon samples obtained from cattle bones found in SFBs G3174, G3180 and G3241 produced supporting dates of cal. AD 421–539, 420–538 and 426–546 respectively (Table 3.1). There were few non-ceramic finds that are closely datable, being restricted primarily to two bone combs from SFBs G3174 and G3180 which date to AD 300–450.

There is consequently no way to know for certain whether these buildings represent a short-lived hamlet, or the continual or repeated reuse of the landscape by only one or two families. However, there is evidence that several of these buildings may have formed the core of a small aggregated settlement that was established in the 5th century, or possibly even the closing years of the 4th: the three SFBs that produced the bone combs and the dog skeleton were clustered together, while nearby hearth G233, well G809 and SFB G3241 contained a handful of sherds of diagnostically late Roman pottery. These structures, and the other buildings within the suggested early settlement core defined on Figure 3.1, also contained the highest densities of pottery fabrics A16 and A18, suggesting both an early date and a concentration (either in intensity or longevity) of activity. The early Anglo-Saxon settlement perhaps expanded from an initial cluster of just a few buildings to incorporate ten or more – the shortcomings of the dating evidence mean that some of the buildings and other structural remains assigned conservatively to the middle Anglo-Saxon period, particularly the poorly dated assortment in L13 (see below), may in fact have been earlier, while it must also be remembered that much of the adjacent land remains unexcavated.

Period 3 artefacts

Pottery

Features associated with unenclosed settlement L5 contained 546 sherds (6.6kg) from 342 pottery vessels. These include 23 sherds (531g) of residual prehistoric and Roman wares, accounting for 4% of the assemblage, and also 11 intrusive sherds (61g; 2%) that are datable to the late Anglo-Saxon and medieval periods.

The early Anglo-Saxon assemblage (512 sherds: 5.9kg) is dominated by reduced local sandy wares A16, A18 and A19, totalling 79%. Sandstone and oolitic wares (A23 and A24 respectively) are most numerous during this period, suggesting that they may genuinely represent early Anglo-Saxon fabrics, although the sample is probably too small to draw significant conclusions.

Some 82% percent of the pottery derives from the fills of nine SFBs (Table 3.2), with the small assemblages from each structure ranging in quantity from 17 sherds (G6014) to 104 sherds (G3508). Mean sherd weight varies between 5g (G5009) and 23g (G3241; G3608). The pottery was collected exclusively from the infill

Figure 3.1 (opposite page): Plan of all excavated remains from Period 3 (early Anglo-Saxon), with selected section drawings

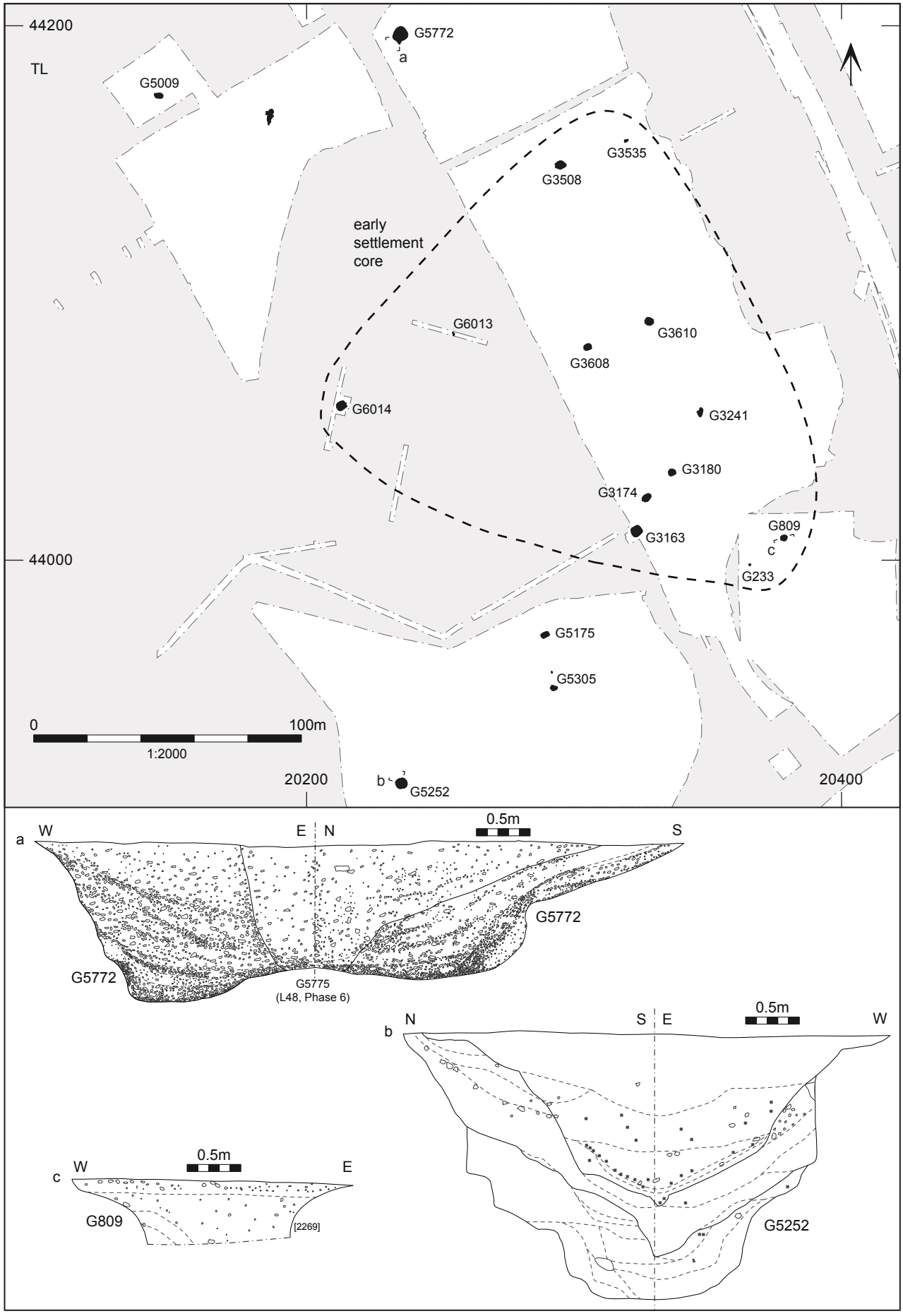

44200
TL
G5772
a
G5009
G3535
G3508
early
settlement
core
G6013
G3610
G3608
G6014
G3241
G3180
G3174
G3163
G809
c
G233
44000
G5175
G5305
0
100m
1:2000
20200
b
G5252
20400
a
W
E
N
S
0.5m
G5772
G5772
G5775
(L48, Phase 6)
b
N
S
E
W
0.5m
G5252
c
W
E
0.5m
G809
[2269]

Table 3.1: Radiocarbon dates from Period 3 deposits

Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
SFB G3165	SUERC-30099	Partial dog skeleton from fill of SFB	animal bone: dog; right mandible	1645 ±40	cal AD 260–540
SFB G3174	OxA-39867 OxA-39938	Animal bones from fill of SFB	cattle bones	1599 ±18 1584 ±21	cal AD 421–539 cal AD 426–545
SFB G3180	OxA-39866	Animal bones from fill of SFB	cattle bones	1602 ±18	cal AD 420–538
SFB G3241	OxA-X-3054-17	Animal bones from fill of SFB	cattle bones	1583 ±21	cal AD 426–546
SFB G5009	OxA-23090	Potsherd from fill of SFB	carbonised residue: fabric type A18	1493 ±24	cal AD 535–630

Table 3.2: Period 3 pottery quantification

Feature type	Phase	G No.	No. sherds	Wt (g)	MSW (g)	Residual Roman % sherd count
SFB	3	G3163	73	568	8	-
	3	G3174	81	571	7	-
	3	G3180	22	399	18	9.0
	3	G3241	28	656	23	11.0
	3	G3508	104	983	9	2.0
	3	G3608	46	1,061	23	2.0
	3	G3610	44	831	19	2.0
	3	G5009	35	191	5	6.0
	3	G6014	17	265	16	6.0
Sub-total			450	5525		
Hearth	3	G233	43	532	12	5.0
	3	G3535	6	31	5	-
Sub-total			49	563		
Well / water-pit	3	G809	1	65	65	100.0
	3	G5253	7	102	15	-
	3	G5772	6	135	23	-
Sub-total			14	302		
Pit	4a	G5000	23	128	6	-
	3	G5305	4	36	9	-
	3	G6013	6	121	20	-
Sub-total			33	285		
Total			**546**	**6675**		

MSW: mean sherd weight

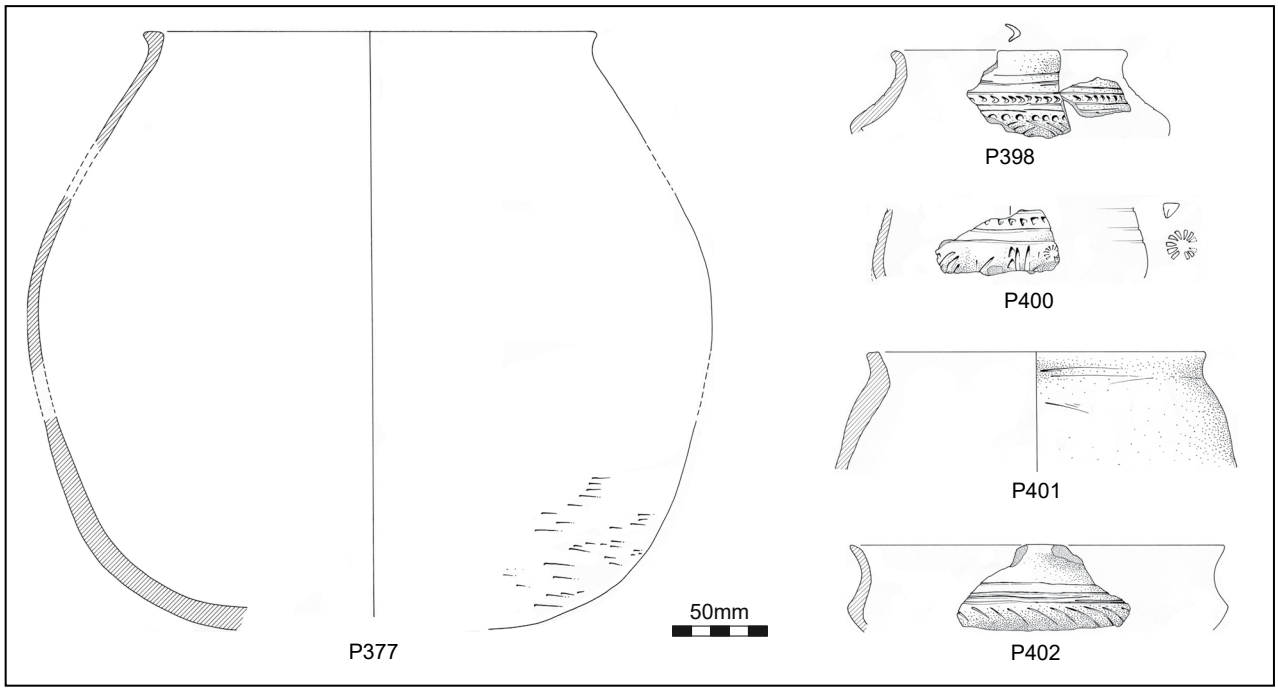


Figure 3.2: Pottery drawings from Period 3 features. Scale 1:4

of the structures' pits, not from any of their postholes, and cannot conclusively be related to the use of the buildings. SFB G3608 contained four decorated vessels (Figure 3.2: P398 and P401), two with stamped motifs – simple cruciform circles (Figure 3.2: P402) and rosette and segmented circles (Figure 3.2: P400), in combination with incised linear decoration. Three decorated vessels were recovered: a possible slipped example from G3163; and single vessels, each with incised motifs, from G3610 and G6014. Residual Roman pottery occurred in varying proportions in seven of the nine SFBs.

Negligible plain-ware assemblages collected from hearths and various pits account for the remaining 18% of the assemblage. The largest single deposit, from hearth G233, comprised 28 sherds (520g) from a sand-tempered vessel (Figure 3.2: P377). All other vessels represented each weighed less than 100g. A single body sherd of middle Anglo-Saxon Ipswich Ware (10g) derived from the recut of well G5253.

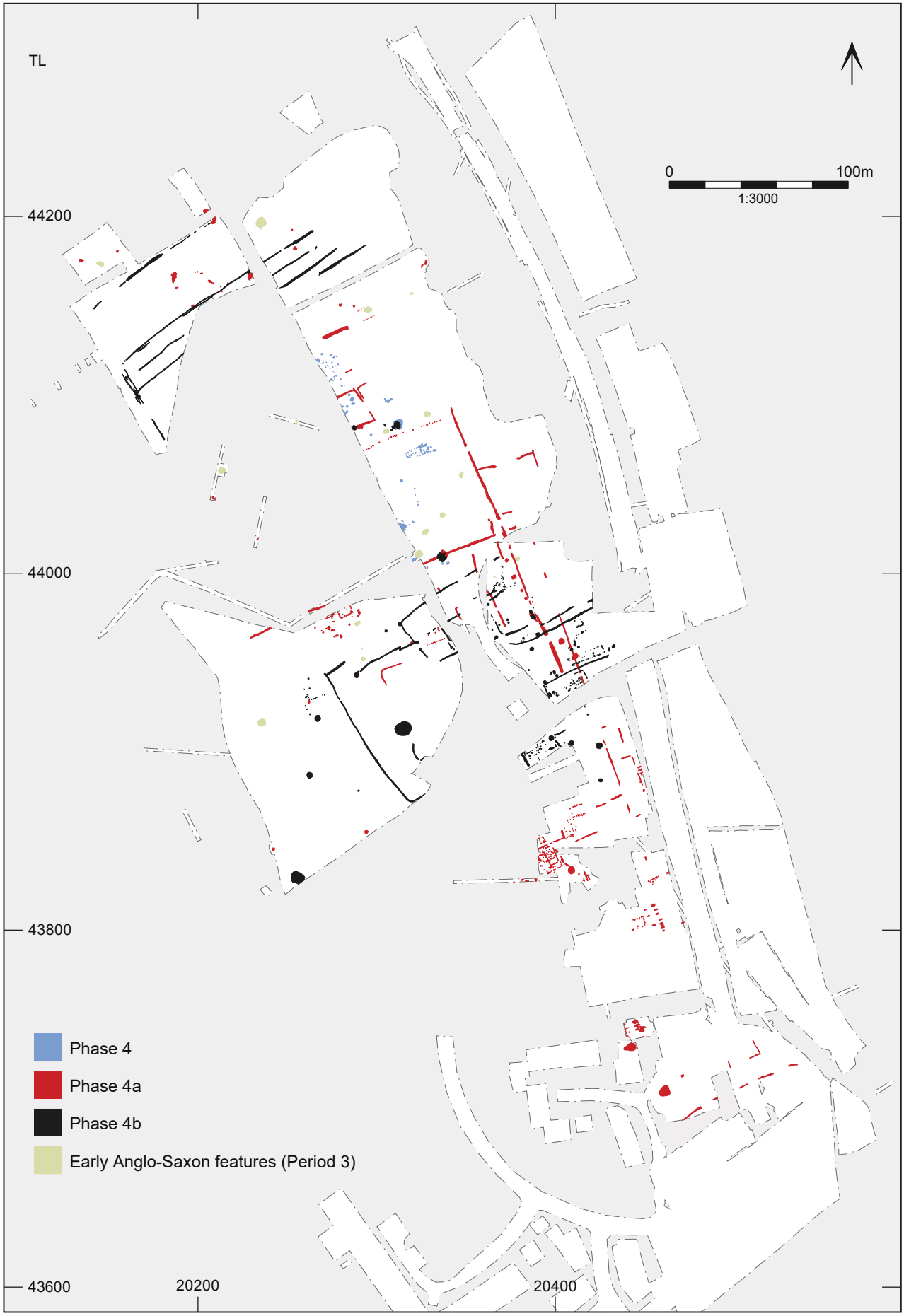
Other artefacts

Overall, the Period 3 assemblage is a modest one. In common with most Anglo-Saxon settlements, artefacts associated with subsistence-level textile production, i.e. in the form of spinning and weaving, were recovered. Although no off-cuts or waste associated with bone or antler working were identified, it is likely that the pig fibula pins and maybe the combs were produced by the community on an occasional, perhaps seasonal, basis. No agricultural tools were found, but there were hints of grain production. The meagre evidence for ironworking suggests that infrequent repairs to tools and implements occurred, but not within the immediate vicinity of the SFBs.

Close dating of the activity is problematic, but certain comb forms, for example OA338 from SFB G5175 can be matched by 5th–6th-century examples, and the double-ended, cigar-shaped pin beaters could be consistent with this date. There are, however, some indications that well G5252 continued in use into the middle Anglo-Saxon period: the recovery of headless pin OA246 (of mid-7th-century date at the earliest) from some of its earliest deposits suggests that the well's lifespan occurred primarily in the middle Anglo-Saxon period, even if it had an early Anglo-Saxon origin. This is further supported by the find of a form C1 knife, in use from the 7th to 11th century, within the fills of the well's first repair. A knife of this form was also found within SFB G3608, suggesting that this structure may have been abandoned (or at least became filled in) at a later date than the other Period 3 SFBs.

Period 4 structural narrative (middle Anglo-Saxon: *c.* AD 600–850)

The unenclosed settlement that was established at Stratton during the 5th and 6th centuries expanded considerably during the middle Anglo-Saxon period, becoming set within an expansive rectilinear enclosure system (Figure 3.3). As with the previous period, few finds were recovered that can be dated closely enough


TL
0
100m
1:3000
44200
44000
43800
43600
20200
20400
Phase 4
Phase 4a
Phase 4b
Early Anglo-Saxon features (Period 3)

to enable detailed examination of the settlement's sequential development. However, the enclosure system was realigned during the latter half of Period 4: this means that many of the middle Anglo-Saxon structures and ditches can be dated by their alignment to an earlier or a later phase within Period 4, respectively Phase 4a and Phase 4b. Some of the other features could also be assigned to one of these phases based on their finds assemblages, spatial location or stratigraphic relationships, yet a number remained whose relative temporal location within Period 4 could not be refined.

Phase 4a

The earlier part of Period 4 witnessed the growth of a dispersed Anglo-Saxon settlement within an extensive rectilinear enclosure system (Figure 3.4). Substantial post-built houses existed alongside smaller SFBs, as well as one building that may have been related to the small cemetery to which it was adjacent.

L6

Enclosure system L6 covered much of the excavated area at Stratton, arranged around a NNW–SSE spine and apparently set out using a grid largely based on four-perch units (Figure 3.5). Although the enclosure system was extensive, the surviving ditches that defined it appeared rather disjointed; this was not obviously a factor of plough truncation, and therefore suggests that they were once supplemented by archaeologically invisible features such as hedgerows.

The enclosed part of the enclosure system may have been somewhat discontinuous anyway. Its surviving layout suggests a network of relatively small, enclosed paddocks strung out along the central spine, with large, unenclosed fields between them and to either side (Figure 3.4). The intricacy of the arrangements for paddocks such as G1537/1539 strongly suggests a pastoral use, probably for sheep; the paddocks may have been used for over-wintering animals, or even just bringing them in overnight, while some may have acted as large holding pens to allow the farmers to inspect their animals and identify any pregnant or sick animals. The paucity of finds from the ditches suggests, as to a lesser extent does the plan, that domestic activity took place primarily at some distance from the ditches, or at least that rubbish was discarded elsewhere; G3004 and G3006 were the only slight exceptions, producing material that probably came either from Phase 4 settlement L15 or was residual from Period 3. The dearth of finds from the ditches surrounding farmstead L8 and alongside the features in L12, where a higher concentration of finds might have been expected, perhaps suggests that the boundary ditches were simply not used for the disposal of rubbish.

L7

At the northern end of enclosure system L6 lay the remains of a long fence and at least one enclosure (L7), both of which are likely to have continued into the unexcavated area (Figure 3.4). A small well G3621 lay immediately south of the enclosure. While the fence and enclosure may have been a continuation of the larger enclosure system, it is curious that no substantial fences were recorded elsewhere as part of it, and the enclosure's alignment was subtly different to that of the ditched boundaries in L6. The slight concentration of finds recorded at this end of enclosure system L6 was also not apparent in L7. Together, this evidence suggests that the features in L7 were formed at a different time to those in L6, the paucity of finds perhaps indicating that these features had fallen out of use prior to the creation of Phase 4 settlement L15.

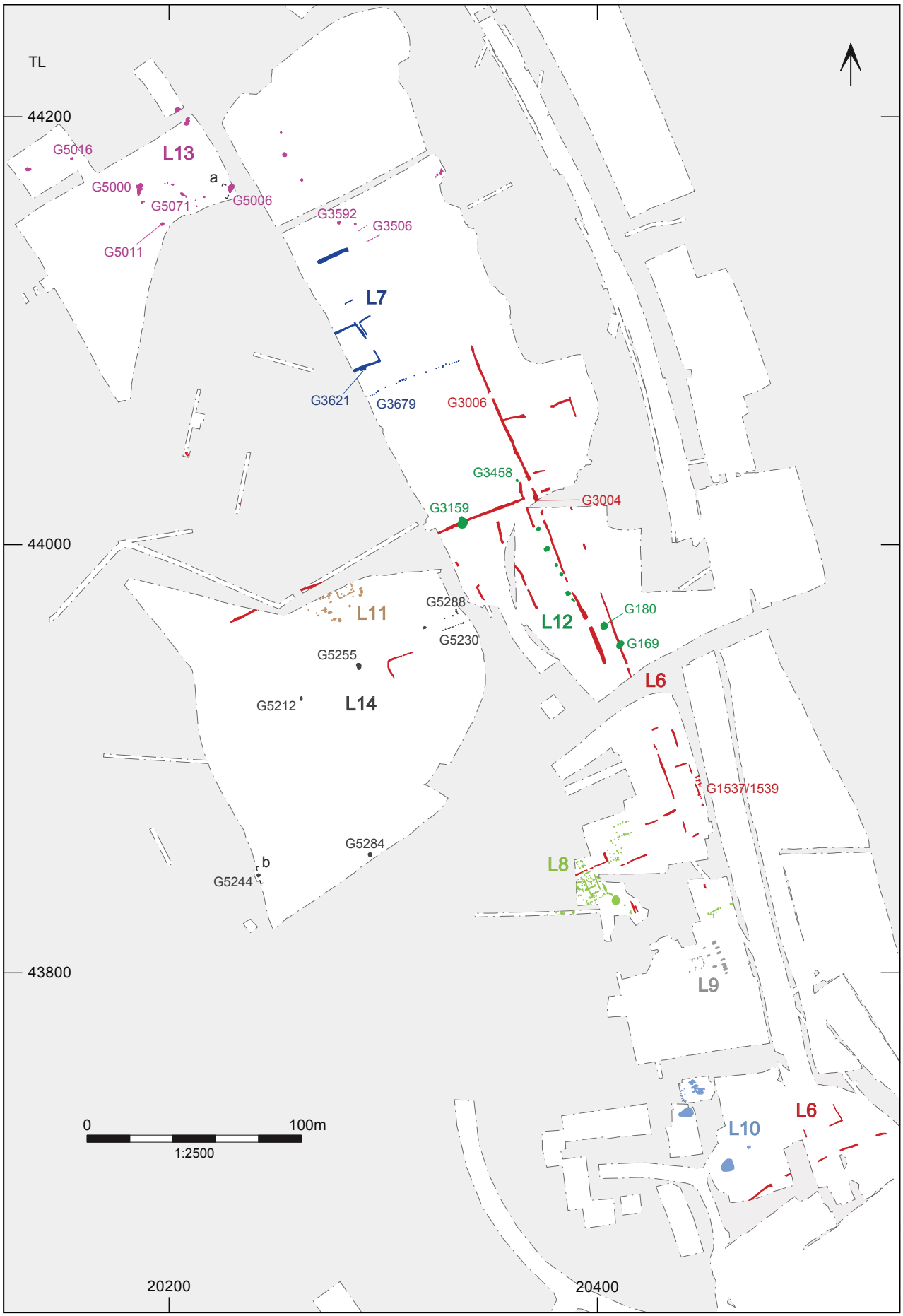
L8

At least four buildings were present in L8, which represents the remains of either one large farmstead or several individual dwellings (Figure 3.6). G873 and G875 were the most substantial, one presumably a replacement for the other, although it is uncertain which was earlier and which later. The only clue comes from the presence of building G888 to the north: constructed from earthfast posts, it is more likely to have been contemporary with the similarly constructed G875 than with G873, which was built using ground beams. Enclosure system L6 appears to have been dug through the southern end of G888 – this suggests that G875 was the earlier building, replaced by G873 at the same time as the enclosure system was set out.

The small size of G888 in relation to G875 suggests that it was an ancillary structure to the main building. No conclusive pattern can discerned from the mass of postholes located between the two, but it is possible that some of them represent the remains of a lean-to structure on the side of G875. A further building was definitely present to the north-east (G811), but the nature of the postholes to the south of it is equally elusive.

Figure 3.3 (opposite page): Plan of all excavated remains from Period 4 (middle Anglo-Saxon) overlain on the Period 3 plan

Figure 3.4 (next page): Overall plan of all excavated remains from Phase 4a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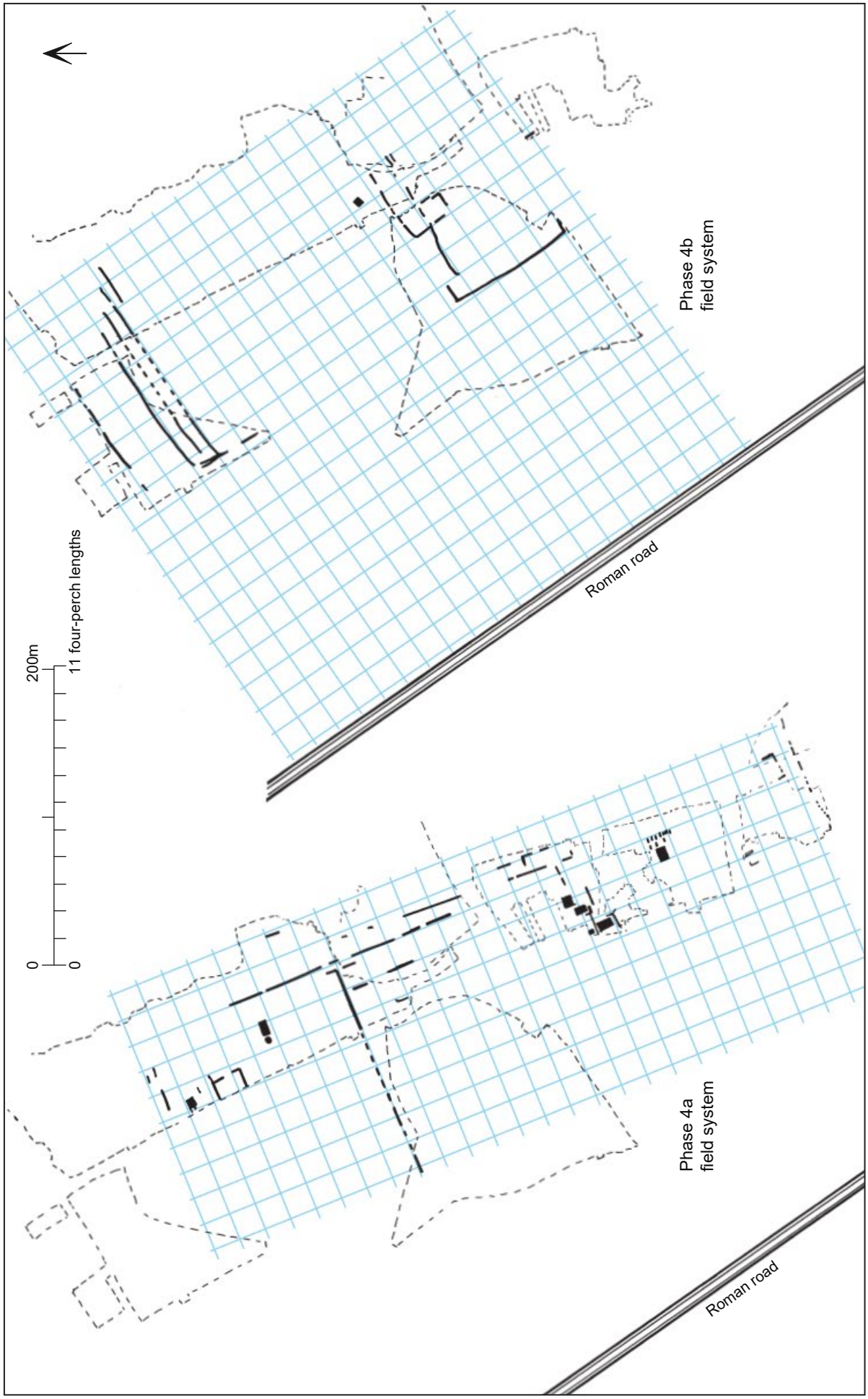


Figure 3.5: Gridded layout of middle Anglo-Saxon enclosure systems

Figure 3.6: Close-up plan of land-use areas L8 and L9, with other Phase 4a features in grey

Assuming that these buildings were more than just byres (they appear unusually well constructed for such, and the evidence of internal partitioning along the south-east side of G875 points towards human occupation), the lack of cultural debris suggests that the occupants were not wealthy. Rubbish pits may still lie unexcavated to the west, yet well G870 produced no more than a handful of finds, and the surrounding ditches in L6 similarly generated little cultural debris. It is possible that the occupants themselves were some of the individuals recovered from cemetery L9; it certainly seems to have been the closest settlement that was broadly contemporary, although such a connection must remain speculative. Some of the burials were, however, relatively rich: if these individuals had lived in the buildings of L8, then it suggests that the lack of finds may be due to a cultural preference for organic materials such as wood and leather, rather than poverty.

L9

Cemetery L9 contained 12 graves, arranged in one line of eight, one line of three, and an isolated grave to the east (Figure 3.7). Radiocarbon dating indicates two general periods of use for the cemetery: the main line of eight graves (G613) can be dated closely to the mid-7th century AD, while the remainder belonged to a less specific point during the following hundred years (Table 3.3). These two phases of use may well correspond with the two phases of farmstead L8, just 50m to the north-west (Figure 3.6).

Table 3.3: Radiocarbon dates from cemetery L9

Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
4a	9	Graves 613	UB-3937	Articulated inhumation 7409	human bone: long bone	1385 ±18	cal AD 635–665
4a	9	Graves 613	UB-3938	Articulated inhumation 7416	human bone: long bone	1353 ±18	cal AD 645–680
4a	9	Graves 613	UB-3939	Articulated inhumation 7417	human bone: long bone	1365 ±18	cal AD 645–675
4a	9	Graves 613	UB-3940	Articulated inhumation 7418	human bone: long bone	1388 ±19	cal AD 635–665
4a	9	Graves 614	UB-3941	Articulated inhumation 7419	human bone: long bones and other bones	1277 ±21	cal AD 665–780
4a	9	Graves 2886	UB-4024	Articulated inhumation 7413	human bone: long bone	1327 ±19	cal AD 655–765
4a	9	Graves 2886	UB-4025	Articulated inhumation 7414	human bone: long bones and pelvis	1312 ±19	cal AD 655–770

Eleven individuals were recovered; the two main lines of graves each included an empty grave, but the northernmost one in G613 contained two skeletons, thought to be mother and daughter (Figures 3.7 – 3.12). The reason why two of the graves were empty is unclear; skeletal preservation in the other graves was good enough to suggest that at least some of the bone should have survived, so they were perhaps never used. Both sexes and all ages were represented, suggesting a family grouping, while the selection of grave goods indicates a measure of wealth: iron knives accompanied five of the individuals; one female also had a key and a girdle-hanger; one male had two knives, a buckle and a spearhead, and was probably buried in a coffin; while another female had two lace tags. It is unclear whether any of the others were buried in coffins, but the position of some, including the male with the buckle, suggests that they were wrapped in a shroud.

The graves in the two main lines were spaced at fairly regular intervals. There were only two exceptions: the third grave from the southern end of G613, which was nearer its neighbours than the others; and a larger gap between the graves near the centre of the two rows. The former grave (15759) was empty, and as such undated: it may have been a later insertion, perhaps contemporary with the second phase of the cemetery's use. A plausible explanation for the gap near the middle of the two rows is that the cemetery was bisected by an access track to building G615, the western end of which was destroyed by 19th-century quarrying (Figure 3.13). There are no structural or artefactual clues to the nature of this building, but its location next to the cemetery, on the same alignment, makes it at least possible that it was an associated mortuary structure of some kind.

L10

Although there was comparatively little evidence of early Anglo-Saxon settlement at the southernmost end of the Stratton excavations, L10 does at least indicate that more than purely agricultural activity was taking place at this end of enclosure system L6 (Figure 3.4). The layout of the excavated areas makes it difficult to form a coherent picture of what was happening, but the presence of building G1005 and nearby hearth G1021 points towards a domestic focus (Figure 3.14). There were also two wells: G1001 lay immediately south of the building, with G1095 further to the south. Few finds were recovered from this area, with a fragment of quern stone the only non-ceramic artefact, but the similar paucity of recovered artefacts from farmstead L8 shows that this does not necessarily equate to evidence for little domestic activity.

L11

Farmstead L11 lay on the edge of the excavated area, so its full extent could not be determined. It contained at least one fairly substantial building (G5153), which

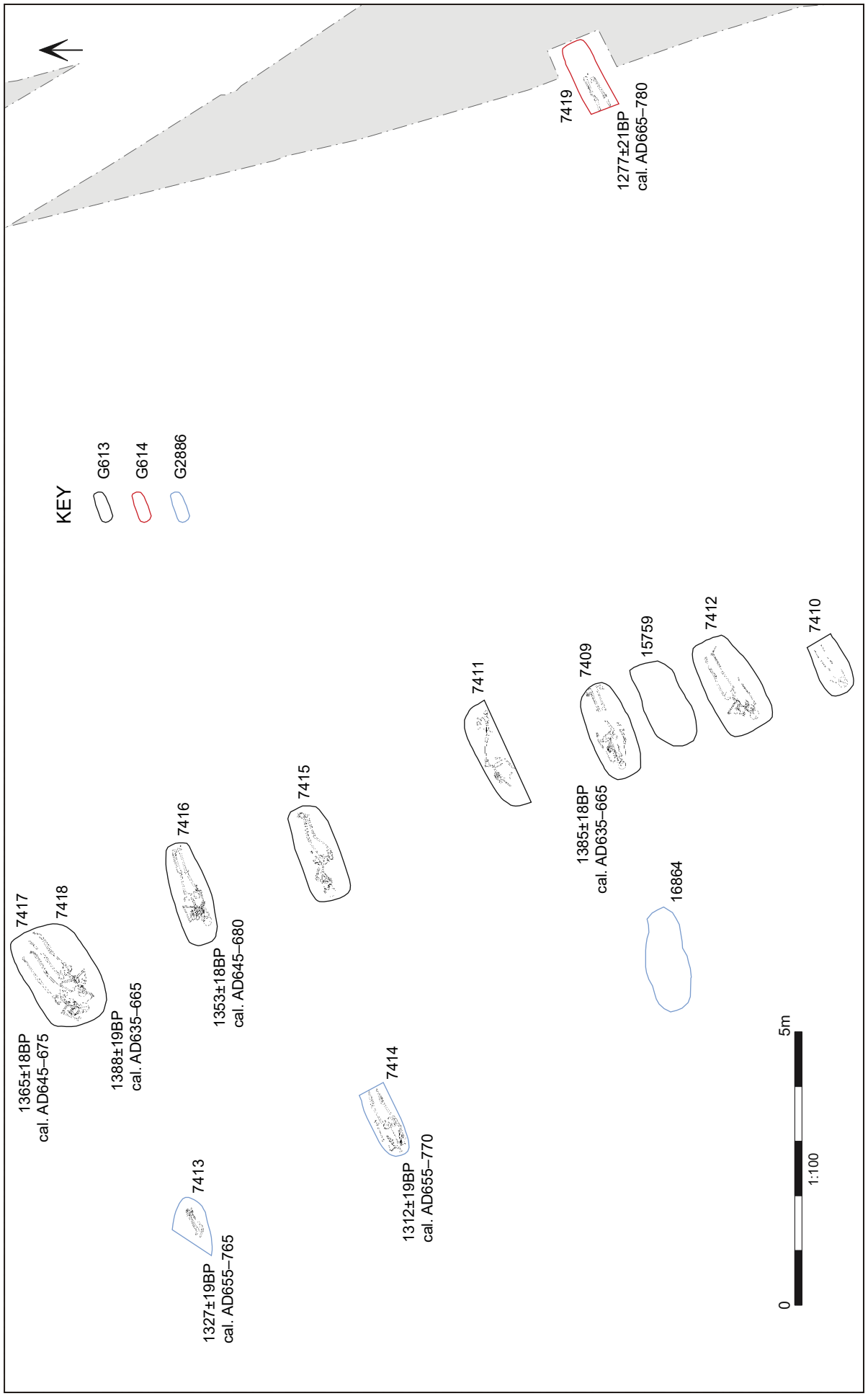


Figure 3.7: Plan of graves in cemetery L9, with radiocarbon dates

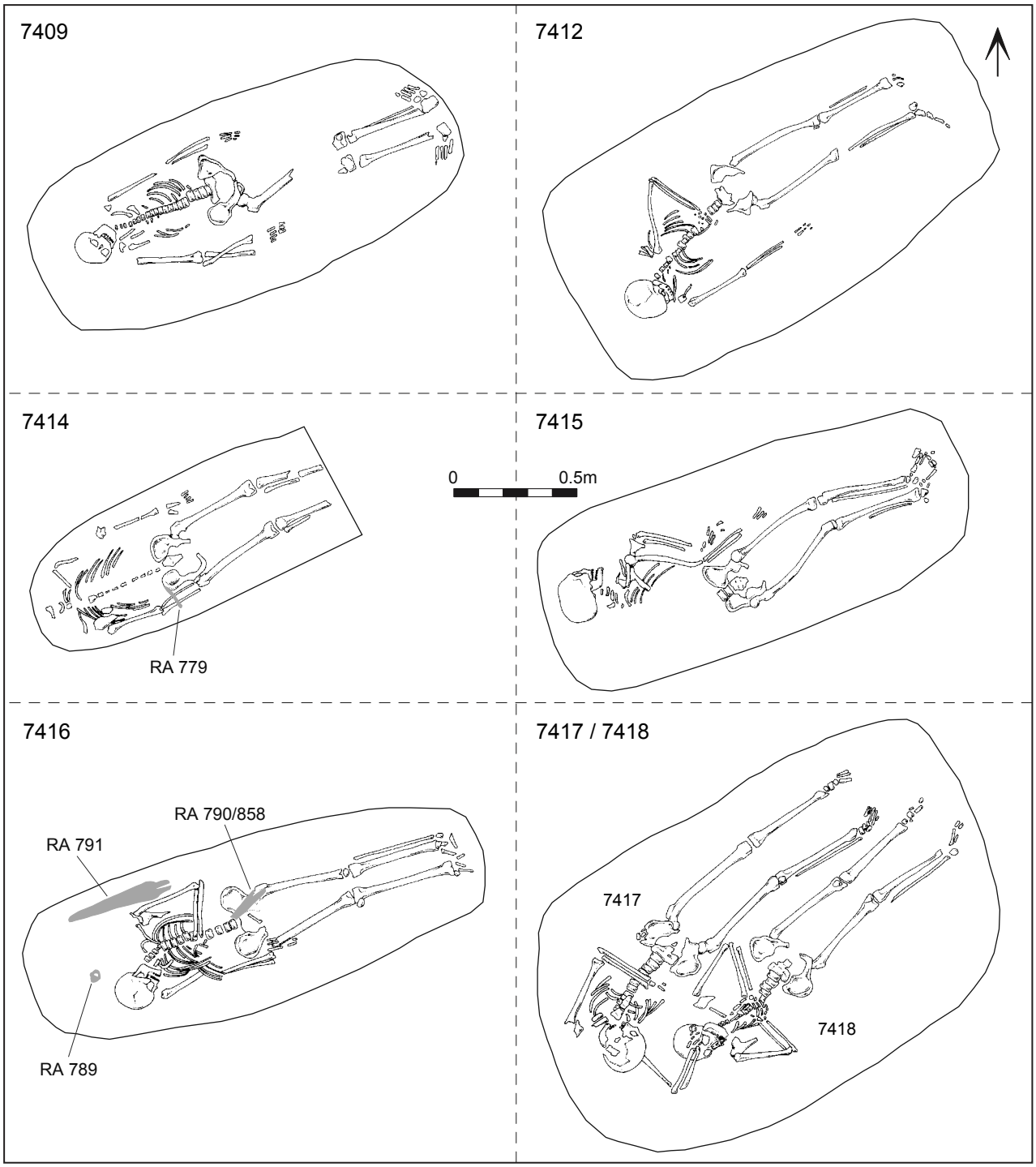


Figure 3.8: Close-up plans of the more complete skeletons in cemetery L9

had evidence of internal partitions; G5280 to the west may have been an extension of this building, or perhaps more likely a second structure (Figure 3.15). Few finds were recovered to indicate what activities took place, the small assemblage including a copper alloy pin, a tooth from an iron wool comb, several fragments of lava quern, and several sherds of middle Anglo-Saxon pottery. These largely came from the spread of pits to the south and east of the main building. Most of the pottery in fact suggests a slightly later date, and is likely to have accumulated towards the end of the farmstead's life or shortly after it had fallen out of use – the farmstead's early to middle Anglo-Saxon date is based on its alignment with enclosure system L6.

Table 3.4: Radiocarbon dates from Phase 4a settlement-related deposits

Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
4a	10	Hearth G1021	OxA-22920	Hearth deposit	charcoal: Corylus avellana	1218 ±25	cal AD 690–890
4a	10	Hearth G1021	SUERC-30107	Hearth deposit	charcoal: Quercus spp. sapwood	1290 ±40	cal AD 650–810
4a	12	SFB G169	SUERC-30794	Potsherd from fill of SFB	carbonised residue: fabric type A16	1505 ±35	cal AD 430–640
4a	7	Well G3621	OxA-38568	Fill of well	Charred oat grain	1048 ±19	cal AD 978–1029
4a	12	Pit G3458	OxA-23022	Articulating skeleton of a puppy from fill of a pit	animal bone: puppy humerus	1233 ±24	cal AD 685–885
4a	14	Hearth G5212	SUERC-30108	Hearth deposit	charcoal: Salicaceae	1290 ±40	cal AD 650–810
4a	14	Hearth G5212	OxA-22923	Hearth deposit	charcoal: Quercus spp. sapwood	1278 ±26	cal AD 660–780

Figure 3.9: Inhumation 7412

Figure 3.10: Inhumation 7414

Figure 3.11: Inhumation 7415

Figure 3.12: Inhumation 7416

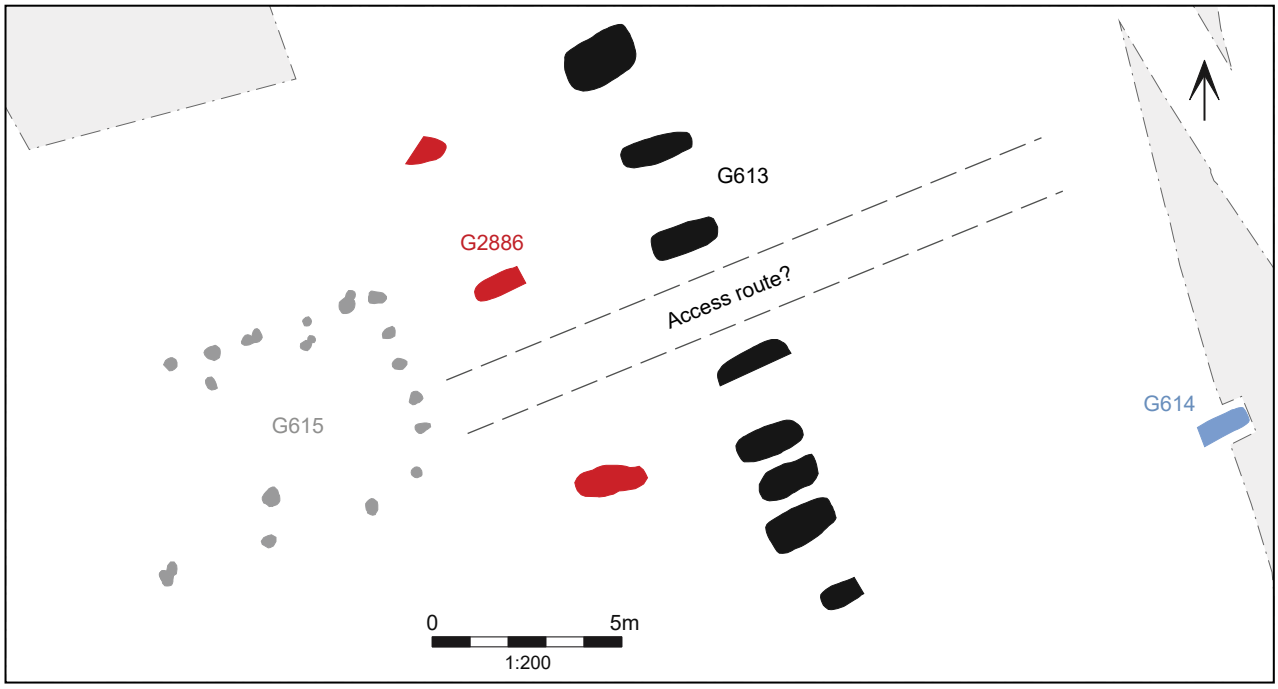


Figure 3.13: Plan showing the spatial arrangement of cemetery L9, with associated structure G615

Figure 3.14: Close-up plan of land-use area L10, with section drawing of well G1095, and other Phase 4a features in grey

L12

A scatter of pits was spread along the central spine of enclosure system L6, with SFBs G169 and G180 at their southern end, and well G3159 near the northern end (Figure 3.4). The well and SFB G169 were dug through two of the ditches in enclosure system L6, although they still belonged to the earlier part of Period 4: a residue on a potsherd from the fill of the SFB was dated to cal. AD 430–640 (Table 3.4).

A piece of worked antler tine and the handle of a knife in SFB G169 attest to craft activity; a moderate assemblage of pottery also came from this SFB. The depth of G180 (more than 0.7m) raises the possibility that it had a basement, which may have been used for storage beneath a suspended floor.

It is unclear whether the line of pits was associated with the two SFBs; too few finds were recovered to indicate their function. The well at least is likely to have been used in this way, providing water for the animals that were kept here, unless it related to an unidentified farmstead in the unexcavated land to the west. The pottery recovered from it is sufficiently early to suggest that the well was in use alongside the enclosure system, while the presence of several residual sherds of pottery and an assemblage of 13 flint tools or flakes perhaps indicates that the well was a recut of an earlier one in the same position.

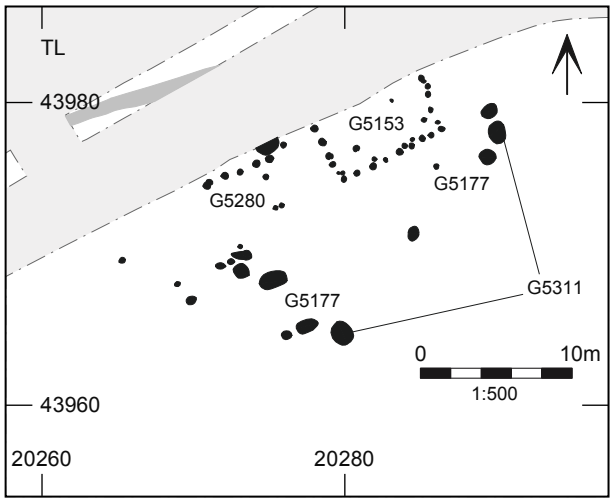


Figure 3.15: Close-up plan of land-use area L11, with other Phase 4a features in grey

L13

The features in L13 mostly comprise a scatter of pits, none with an obviously determinable function (Figure 3.4). A small well G5006 was also present (Figure 3.16:a); the scatter of postholes and/or small pits to the west of it (G5071) may have had some structural significance, but there was no other indication within the excavated area of any building near it. Most of these features contained few finds, the only exceptions being pit G5011 and well G5006: these together produced a loom weight, a spindle whorl, two bone pins, an iron knife, part of a quern stone, and three fragments of glass beaker. The only feature clearly indicative of habitation was hearth G5016; two parallel lines of postholes in G3506 might represent two sides of a house, but they may simply have formed part of a fenced enclosure.

Although few artefacts were recovered from these features, the dates of those that were, in particular the pottery, do suggest that L13 relates to activity that took place in the earlier part of Period 4 overall, perhaps continuing seamlessly from the settlement in Period 3. Stratigraphic relationships, where present, suggest that this activity ceased prior to the establishment of enclosure system L17 in Phase 4b.

L14

L14 represents a thin scatter of features within the north-western part of enclosure system L6 (Figure 3.4). Relatively few finds were recovered from them, but the pottery assemblage consistently suggests a date at the very beginning of Phase 4a – they may even have been contemporary with the later part of the early Anglo-Saxon activity in Period 3. No buildings were conclusively identified, but G5230, like G3506 in L13, may represent the remains of a post-built structure; this is made more likely by the recovery of a timber 'dog' from one of the postholes, which would have acted as a large staple to hold two pieces of wood together. Hearth G5212 is also likely to have been either near or within a building of which no other traces remained.

A distinctive feature of this part of the landscape was its wells: G5244 (Figures 3.16:b and 3.17), G5255 and G6015 were all dug at this point, preceding four more in Phase 4b. Only G5244 had evidence of a wattle lining (Figure 3.18), but none of the three had suitable soil conditions for such a lining to be preserved. In view of the shortage of evidence for domestic activity in this area, these wells may have been used to supply water for industrial purposes: pits G5284 and G5288 both contained moderate quantities of ferrous smithing slag, while the latter pits also produced hammerscale.

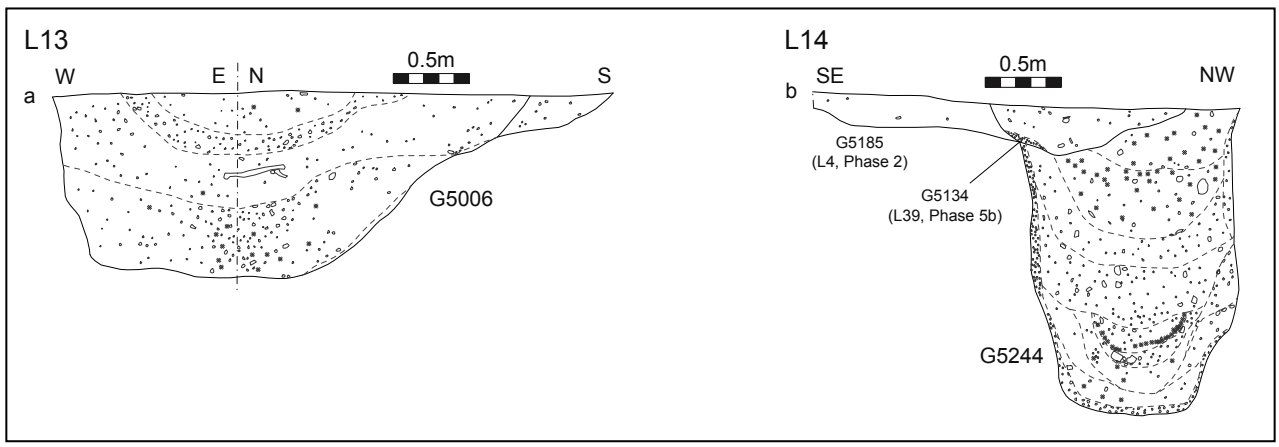


Figure 3.16: Selected section drawings from Phase 4a features

Figure 3.17: Excavation of well G5244 in progress

Figure 3.18: Wattle lining in well G5244

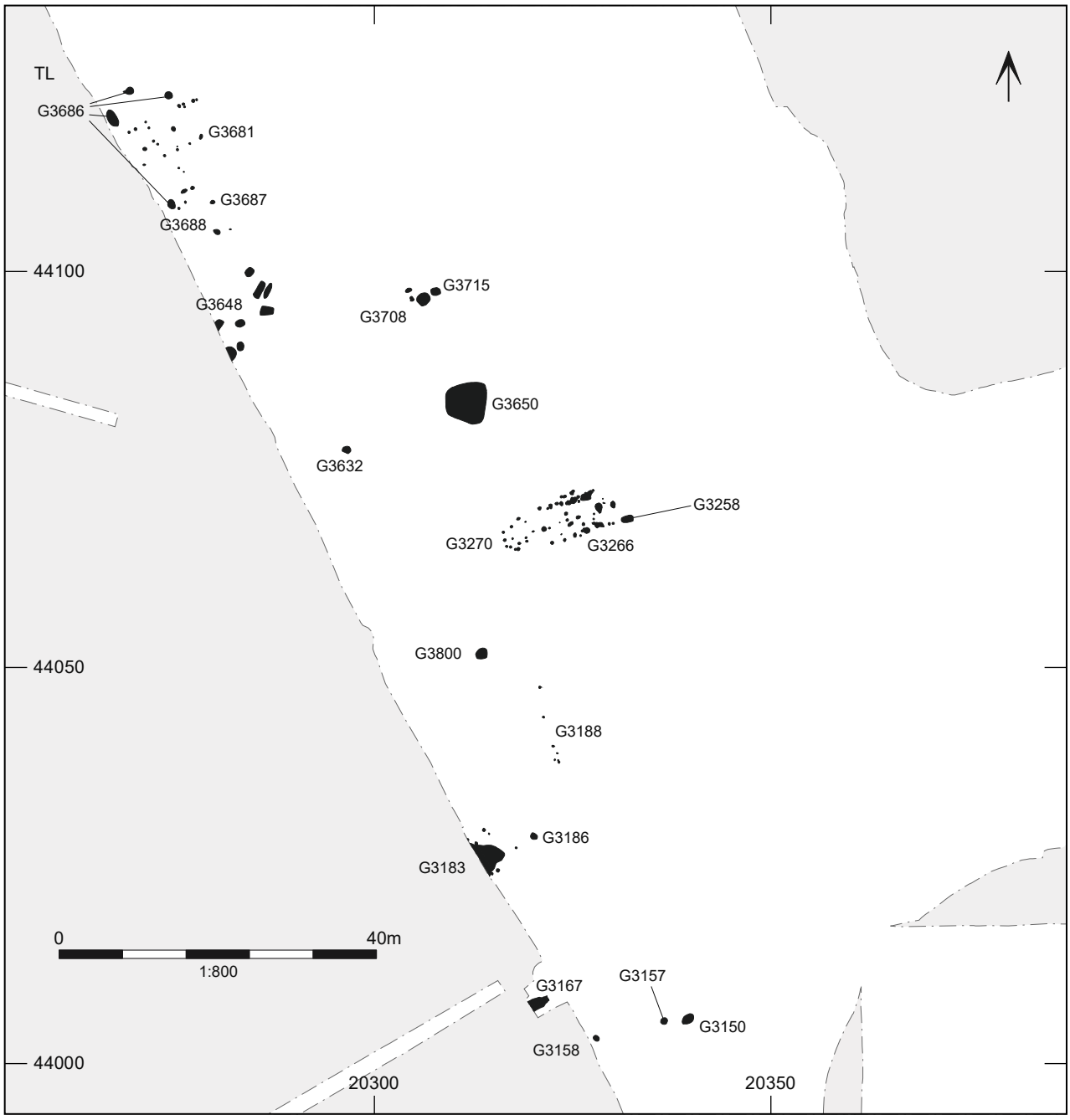


Figure 3.19: Overall plan of all excavated remains from Phase 4 (L15)

Phase 4

L15

Only four buildings were conclusively identified within L15 (Figure 3.19), which occupied the area of the early Anglo-Saxon settlement core (Figure 3.3), but hints of two others can be detected. Although no evidence exists for clear spatial demarcation between the buildings and their associated features, at least three discrete clusters can tentatively be identified which perhaps represent individual households.

Building G3266 was the focus of the central cluster in L15, measuring *c.* 10m × 5m. The more substantial nature of the postholes in its eastern half might be due to the presence of a second storey: their difference in size corresponds with the position of the building's internal north–south partition, and the arrangement of the postholes in the south-west corner of the eastern half might indicate the location of a stairwell. Some of the postholes at the eastern end of G3266 showed signs that the posts were deliberately removed once the building had fallen out of use. Building G3270 was presumably a small ancillary structure related to its larger neighbour,

Table 3.5: Radiocarbon dates from Phase 4 deposits

Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
4	15	Well G3650	SUERC-30100	Mandible and articulating skull fragments from fill of well	animal bone: bovine mandible	1275 ±40	cal AD 650–870
4	15	Pit G3686	OxA-22926	Articulating bovine sacrum and pelvis from fill of pit	animal bone: bovine sacrum	1298 ±25	cal AD 660–780

although the difference in their alignment might point towards a temporal disassociation between the two. The water supply for these buildings is likely to have come from well G3650, which had a square shaft measuring 2m across; this perhaps also provided water for activities associated with hearth G3632. A radiocarbon date from this well places it roughly within the centre of Period 4 chronologically (Table 3.5).

A less clearly defined building (G3681) formed the core of the northern cluster, with G3688 again potentially representing an ancillary structure. No hearths or wells were found in association with these, but they may lie in the unexcavated area to the west. There was a concentration of pits to the south, however (G3648); it is unclear whether these were related to the northern cluster or the focus of activity represented by hearth G3632, but the recovery of more than 500g of ferrous smelting slag from one of the pits suggests the presence of metalworking in the immediate vicinity.

The southern cluster comprised a clay-lined oven or possible kiln G3167 and possible hearth G3183, which was only partially exposed. No buildings were revealed in association with these features, but they may have lain beyond the excavated area, or all trace of them may have been removed by plough truncation.

Phase 4b

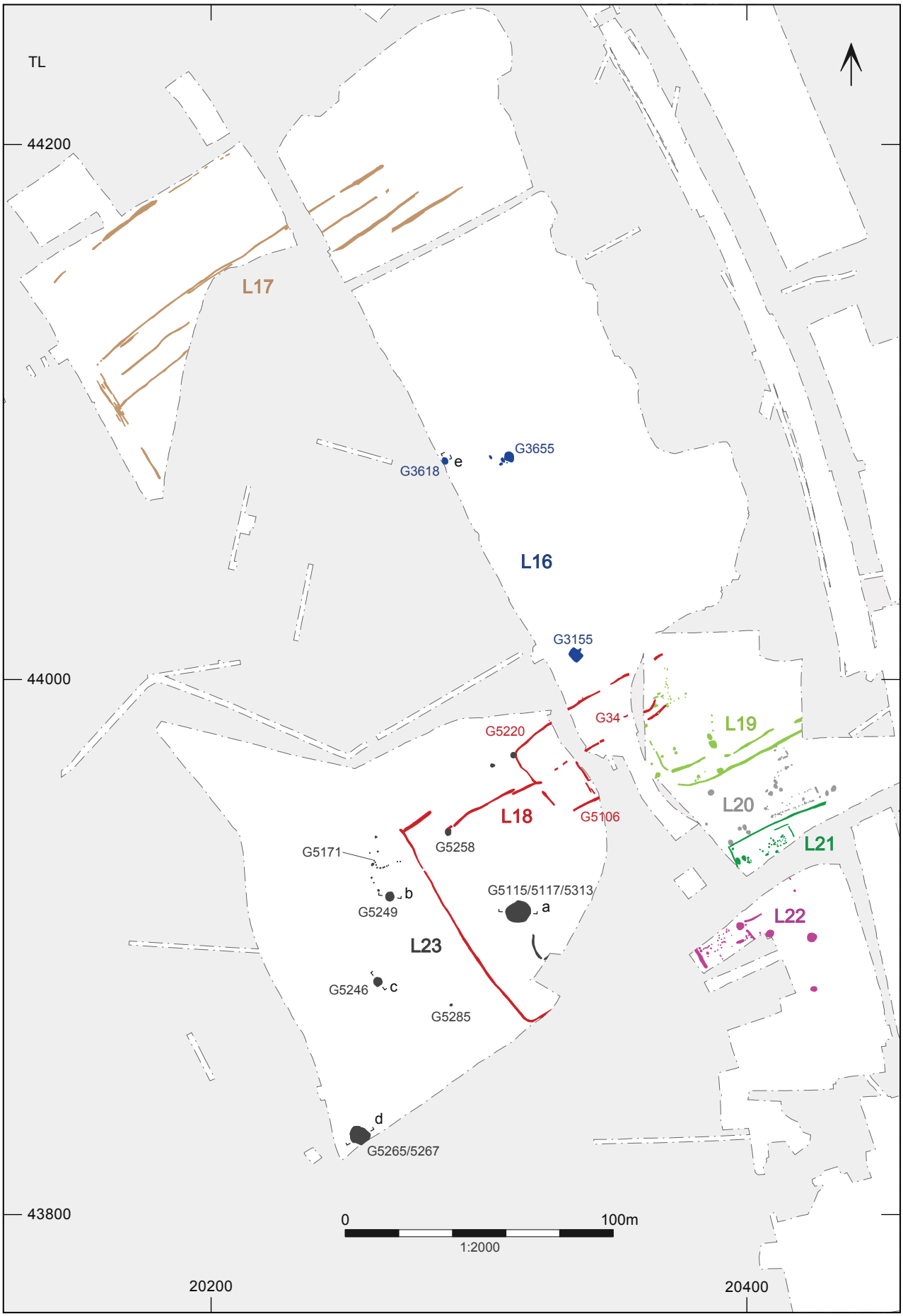
The settlement pattern in the later part of Period 4 appears to have become increasingly concentrated on particular areas (Figures 3.3 and 3.20): a greater density in the central part of the excavations was balanced by a lack of activity to the south, although the problems of only partial excavation of the overall settlement remain. Substantial post-built houses continued to co-exist with smaller SFBs, but within a new enclosure system: the one established in Phase 4a was replaced by an apparently less extensive network, set out on a grid that followed a different alignment to that of its predecessor (Figure 3.5). Whether the change to this new alignment was comprehensive is unclear; the orientation of L19–L21 was closer to that established in Phase 4a, yet this could simply be an imperfection in the laying out of the new grid, or perhaps an indication that they predated the new enclosure system.

L16

Although L16 appears to represent quite a thin scatter of features (Figure 3.20), it is quite likely that some of those in Phase 4 were contemporary with them, representing continuation throughout the middle Anglo-Saxon period of the early Anglo-Saxon settlement core that was established in Period 3 (Figure 3.3). The main reason that the features in L16 can confidently be assigned to Phase 4b is due to their stratigraphic relationships: well G3618 (Figure 3.21:e) was dug through the Phase 4 enclosure in L7, while SFBs G3155 and G3655 were constructed over the top of Phase 4a well G3159 and Phase 4 well G3650 respectively. The positioning of these two SFBs over disused wells appears deliberate; this may simply have been to utilise existing hollows, or the extra dampness of the underlying soil may have been desirable for activities that favoured cool, damp conditions, such as weaving (Chapelot and Fossier 1985, 120). A relatively late date within Period 4 for SFB G3155 is supported by a radiocarbon date obtained from residue on a potsherd found within the building's backfill (Table 3.6).

Building G3155 produced a large assemblage of pottery and non-ceramic artefacts, the latter including a bone comb, two iron knives, a stone spindle whorl, and waste products associated with iron-smithing. The finds assemblage – which also includes a large amount of animal bone – suggests a combination of domestic and craft/industrial activities; micromorphological analysis of the soil within the SFB supports this, though it was unable to determine conclusively whether the soil accumulated *in situ* or had been backfilled from elsewhere. Building G3655 produced an assemblage

Figure 3.20 (opposite page): Overall plan of all excavated remains from Phase 4b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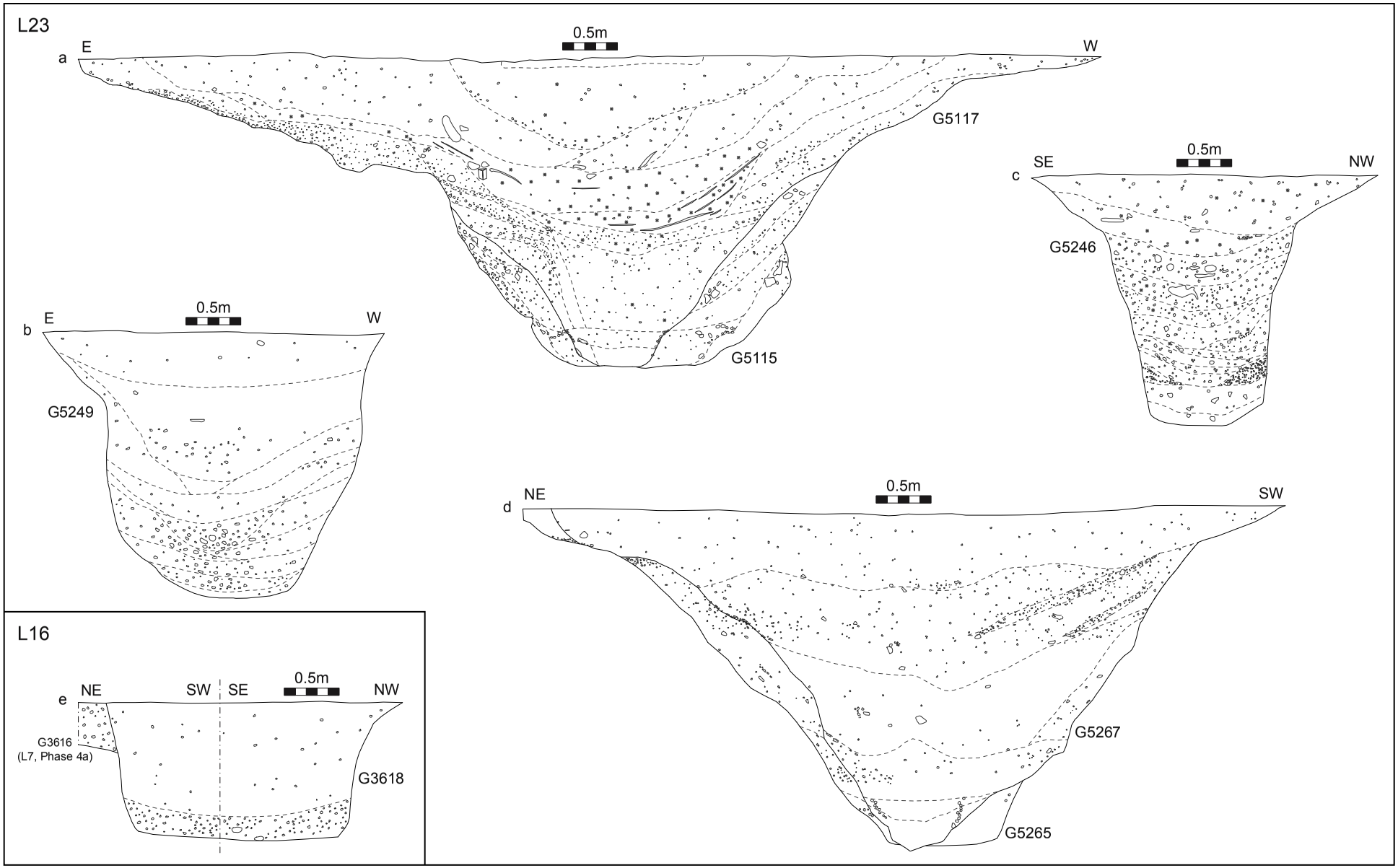


Figure 3.21: Selected section drawings from Phase 4b features

Table 3.6: Radiocarbon dates from Phase 4b settlement-related deposits

Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
4b	16	SFB G3155	OxA-23089	Potsherd from fill of SFB	carbonised residue: fabric type A11	1148 ±24	cal AD 780–975
4b	22	Well G842	SUERC-30103	Hearth rakings in well	charcoal: Corylus avellana	1385 ±40	cal AD 600–690
4b	22	Well G842	OxA-22921	Hearth rakings in well	charcoal: Quercus spp. sapwood	1190 ±24	cal AD 770–935
4b	22	Well G842	OxA-38657	Hearth rakings in well	charred barley grain	1181 ±21	cal AD 772–894 or 928–945
4b	23	Well G5115	SUERC-30799	Lining of well	wood: ?Corylus avellana; ?roundwood	1245 ±35	cal AD 670–890
4b	23	Well G5115	OxA-23091	Lining of well	wood: ?Corylus avellana; ?roundwood	1177 ±24	cal AD 775–945
4b	23	Well G5117	SUERC-30801	Lining of well	wood: ?Corylus avellana; roundwood	1215 ±35	cal AD 680–900
4b	23	Well G5117	OxA-23093	Lining of well	wood: ?Corylus avellana; roundwood	1184 ±24	cal AD 770–940
4b	23	Well G5249	OxA-38658	Hearth rakings in well	charred rye grain	1181 ±21	cal AD 772–894 or 928–945
4b	23	Pit G5258	OxA-39338	Fill of rubbish pit	charred rye grain	1201 ±20	cal AD 774–885
4b	23	Well G5267	SUERC-30800	Lining of well G5267, a recut of well G5265 [30504A]	wood: ?Corylus avellana; roundwood	1365 ±35	cal AD 610–690
4b	23	Well G5267	OxA-23092	Lining of well G5267	wood: ?Corylus avellana; roundwood	1124 ±23	cal AD 880–990
4b	23	Well G5267	OxA-22928	Disarticulated human bone from fill of well	human bone: left mandible	1223 ±25	cal AD 690–890
4b	23	Well G5267	SUERC-30338	Disarticulated human bone from fill of well	human bone: right mandible	1185 ±35	cal AD 710–970
4b	23	Well G5267	OxA-22927	Disarticulated human bone from fill of well	human bone: left mandible	1220 ±25	cal AD 690–890
4b	23	Well G5313	SUERC-30339	Disarticulated human bone from fill of well	human bone: right mandible	1240 ±35	cal AD 670–890

that was similar in character though not as substantial; the difference was roughly in proportion to the lesser volume of earth excavated, suggesting a similar intensity of activity.

L17

As with the Phase 4a enclosure system L6, the boundaries of L17 appear to have been set out using a grid consisting of one- and four-perch units. Its orientation was rotated slightly anticlockwise, however, with the new system matching the alignment of the Roman road from Baldock to Sandy to the west (Figure 3.5). Unlike L6, there was evidence that the ditches of L17 had been recut (Figure 3.20), perhaps indicating that this enclosure system remained in use for longer than its predecessor. It is unclear how extensive the enclosure system was, even within the excavated area: plough truncation appears to have had a greater effect than it did on the earlier field ditches to the south, while recutting in the late Anglo-Saxon / Saxo-Norman and medieval periods may have masked further ditches that had been dug as part of L17. If their easternmost limit can be approximated with that of the fields visible in Phase 6a (Figure 5.1), however, then their width comes within a few yards of being a furlong.

As few finds were recovered from the ditches, with just a handful of pottery, the fields are therefore likely to have been used exclusively for agricultural purposes, possibly at some distance from the nearest domestic activity. Although there is no conclusive evidence for whether they served an arable or a pastoral function, the long, narrow layout of the NE–SW strips makes the former more likely. Wheel ruts visible along the south-west edge of the enclosure system also suggest that the fields were used for arable cultivation, with carts used to transport the harvested crops to a processing area.

L18

Analysis of the grid that was used to set out the fields in L17 suggests that the ditches of L18 formed part of the same enclosure system, although the greater irregularity and complexity in their layout suggests a pastoral function. It is possible that some of the ditches were later additions, since the NW–SE ditches were not quite parallel (Figure 3.20); however, as the layout of the ditches in L17 and L18 overall was not as regular as that of the Phase 4a enclosure system L6, it may simply reflect a degeneration in surveying standards. The area defined by ditches G5106 and G5220 produced the greatest concentration of finds amongst the relatively small overall assemblage, but a significant degree of both residuality and intrusiveness within the assemblage suggests that the finds may have been largely unrelated to contemporary activity.

L19

The activity that took place in L19 was bordered – and to some extent perhaps defined – by a discontinuous ditched boundary to the south and west (Figure 3.22), but the nature of this activity is hard to determine. A funerary function for part of it is at least clear, with eight graves present in cemetery G302 (Figure 3.23), three of which were radiocarbon-dated to cal. AD 770–890/895 (Table 3.7). The burials were all supine, with no grave goods present, and had suffered heavily from ploughing, with less than half the skeleton present in most cases. They included one infant, two children, one adolescent, one young adult female, one adult female, and one older adult male; too little survived of one further individual to determine age or sex, although a stray child's mandible from one of the other graves may have come from here. The cemetery's demographic make-up suggests that the burials represent a single family, possibly all buried at the same time – with the exception of the southernmost grave, the burials appear to have been arranged clockwise in descending order of age.

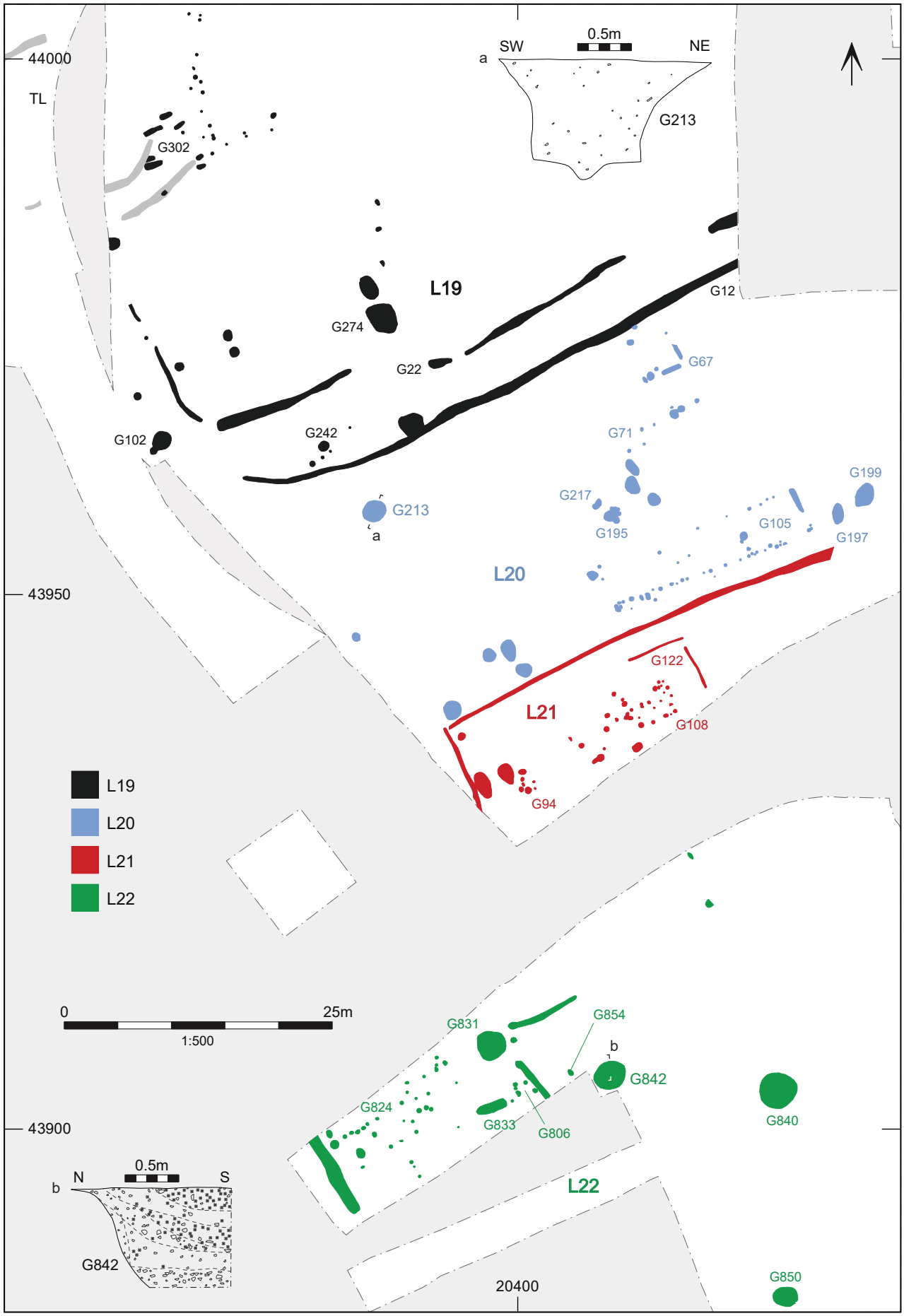
There is little indication as to the function of the remaining features within the enclosed area – the spread of postholes next to the cemetery gives the impression of being structural, but no clear pattern is evident – while some may not have been contemporary with the cemetery. It is possible that this area was set aside as a funerary enclosure, yet the people buried in the cemetery may equally have lived in this area but with little trace of their occupation; the small assemblage of finds gives little indication either way. It does appear more than coincidental, however, that the only features obviously associated with domestic activity were outside the enclosure, within the track-like area defined to the south by ditch L12. These comprise oven G102, which was circular with a stoke-hole to the south-west; possible hearth G242, which had a line of four postholes next to it that might or might not have been related; and a second possible hearth G22. Ditch G12 does seem to have formed a distinct boundary with farmstead L20 to the south, yet the northward curve of its western end suggests that it did enclose this thin strip of domestic activity in L19 rather than merely providing a northern boundary to L20.

L20

This farmstead occupied the plot of land between the ditched enclosures of L19 and L21 (Figure 3.22), and contained at least three buildings. The principal structure G105 was one of the largest at Stratton, measuring 20m long; few internal divisions were apparent, but this is perhaps because the foundations for any dividing walls did not need to be as substantial and therefore did not survive. Two features to the east of the building (G197 and G199) were either hearths or ovens; both had a clay lining and contained a basal layer of fired clay and charcoal that was indicative of *in-situ* burning, but too little survived of either to further determine their function.

Building G67 is likely to represent a fairly substantial outbuilding to G105. G195 was a much smaller structure, built around a shallow pit; it may have been a dog kennel, as suggested by the dog burial G217 less than a metre away. The other postholes and pits between the two main buildings represent a cluster of poorly defined activity, with a further cluster to the south-west. Well or water-pit G213 may also have been part of this farmstead, although its location 20m from the main building is sufficiently far that it may have been unrelated – no dating evidence came from its fill. Few artefacts were recovered generally from this farmstead, in common with its contemporaries, and quite a few

Figure 3.22 (opposite page): Close-up plan of land-use areas L19–22, with selected section drawings, and other Phase 4b features in grey


44000
TL
G302
a
SW
0.5m
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G213
L19
G12
G274
G22
G67
G102
G242
G71
G199
G217
G213
a
G105
G195
G197
L20
43950
G122
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G831
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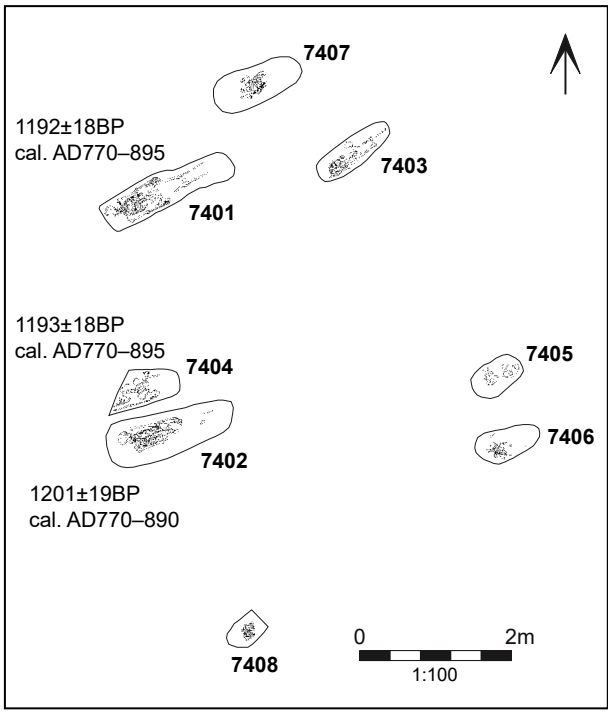


Figure 3.23: Plan of graves in cemetery L19, with radiocarbon dates

of those that were recovered are likely to postdate the farmstead's use.

L21

Only the northern part of farmstead L21 was excavated, but it seems to have had quite a regular layout, with a ditched boundary on at least two sides (Figure 3.22). Buildings G94 and G108 appear to have been constructed within a sub-enclosure, its presence suggested by gullies G122; there may in fact have been an internal track all long the north-west edge of the enclosure. The larger of the buildings (G108) was divided into at least two rooms and may well have had a domestic function, whereas G94 was much smaller and was probably no more than a shed or pen. The two pits to the west of G94 were perhaps associated with it, the western one producing enough finds to suggest that it was used for the disposal of rubbish.

L22

The remains in L22 differ from those in the farmsteads to the north, with less evidence of enclosure and an alignment more strongly in keeping with that of enclosure system L18. SFBs G831 and G840 are reminiscent of the Phase 4a examples in L12, yet the position of SFB G831 seems to bear some relation to the two short lengths of ditch to the east (Figure 3.22), whose alignment places them firmly in Phase 4b. The disjointed layout of the excavation areas in this part of Stratton makes it impossible in reality to characterise the nature of these settlement remains; it is unclear whether the SFBs were contemporary with building G824 or possible structure G806, and nor can it be said whether the contemporaneous remains relate to a single farmstead or several smallholdings. Well G842 and hearth G854 can perhaps be matched with SFB G831, while well G850 perhaps served SFB G840, but whether each SFB belonged to a different family or was an outbuilding used by the occupants of G824 for craft or industrial activities is unknown. Radiocarbon dates suggest that well G842 was a long-lived feature (Table 3.6).

L23

Following on from the pattern set by L14 in Phase 4a, this part of Stratton continued to be characterised by primarily open areas, with a number of wells but few structural remains (Figure 3.20). It is unclear how many of the remains in L23 were associated with each other, since they were spread over a distance of 150m and straddled enclosure system L18, but they do seem generally associated with small-scale, temporary or seasonal activities that took place away from the settlement core. There were four wells in total and

Table 3.7: Radiocarbon dates from cemetery G302

Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
4b	19	Graves G302	UB-3934	Articulated inhumation 7401	human bone: long bones and pelvis	1192 ±18	cal AD 770–895
4b	19	Graves G302	UB-3935	Articulated inhumation 7402	human bone: long bones and pelvis	1201 ±19	cal AD 770–890
4b	19	Graves G302	UB-3936	Articulated inhumation 7404	human bone: long bones, pelvis and assorted bones	1193 ±18	cal AD 770–895

possibly the remains of a building (G5171) alongside a thin scatter of pits and postholes; the two largest wells G5265 and G5115 (Figure 3.21:a and d) were recut at least once each, with the final silting-up of the latter not taking place until Phase 5a.

Whereas comparatively few artefacts were recovered from the settlement core in Phase 4b, the remains in L23 produced generally much larger volumes of items. Well G5249 (Figure 3.21:b) was the only one of the four wells that contained few artefacts: G5246 (Figure 3.21:c), G5265 and its recut G5267, and G5115 and its two recuts G5117 and G5313 all yielded moderate amounts of pottery and non-ceramic finds, the latter especially abundant from G5115. A particularly large amount of primarily Maxey-type pottery was also recovered from rubbish pit G5258. The non-ceramic finds point towards craft and industrial activity, and the presence of heavy items such as quern stones, which are unlikely to have travelled far, suggests that these activities were being carried out in the vicinity of the wells, in particular the two larger ones. The most intriguing contents of these wells, however, are the large number of disarticulated human bones: at least three individuals are represented, and the vast majority of the individual bones display possible evidence of butchery. Numerous radiocarbon dates were obtained for these wells and their contents, indicating that they were in use during the latter half of Period 4 and possibly into Period 5 (Table 3.6).

Table 3.8: Phase 4a pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L6	Enclosure system	81	415	5
L7	Enclosure system	4	48	12
L8	Farmstead	31	224	7
L9	Cemetery	14	67	5
L10	Settlement-related activity area	5	28	6
L11	Farmstead	19	520	27
L12	Settlement-related activity area	55	1106	20
L13	Settlement-related activity area	64	759	12
L14	Dispersed activity area	20	336	17
Total		**293**	**3503**	

MSW: mean sherd weight

Period 4 artefacts

Pottery

Phase 4a

Settlement features assigned to Phase 4a yielded 293 sherds (3.5kg) from 235 pottery vessels. Residual prehistoric and Roman wares (23 sherds: 280g) account for 8% of the assemblage, while intrusive late Anglo-Saxon and medieval wares (97 sherds: 625g) account for 33%.

Early and middle Anglo-Saxon pottery comprises a modest plain-ware assemblage of 173 sherds (2.5kg) from 129 vessels, dominated by sandy wares A16, A18 and A19 (69%), with an increased proportion of middle Anglo-Saxon types (20%; see Table 8.3). Forms are mainly jars with slightly everted or incurving rims.

Pottery was collected from a range of feature types – principally pits – across nine Land-use areas, with the largest deposits deriving from farmstead L11 and activity areas L12 and L13 (Table 3.8). Few vessels are represented by more than single sherds, and most weigh less than a total of 100g. Mean sherd weights across Land-use areas range between 4g and 27g, probably reflecting variable deposition patterns. In common with the Period 3 SFBs, pottery collected from L12 structures G169 and G180 derived from the disuse fills and cannot be tied definitively to the buildings' use. Similarly, seven sherds (45g) associated with buildings G873 and G875 from L8 and G5153 from L11 occurred in the backfill deposits. A residual sherd of samian ware (27g) derived from the backfill of SFB G169, but no Roman pottery came from G180.

Only four of the 14 sherds recovered from six burials in cemetery L9 (G613) are Anglo-Saxon in date, the remainder being of late Anglo-Saxon and medieval origin. All are uniformly abraded and have a mean sherd weight of 4g, consistent with their being intrusive. Overall, the general paucity of ceramic material from features assigned to Phase 4a suggests secondary deposition for much of the pottery.

Some 25 sherds of Maxey-type ware (683g) were collected, the majority from the disuse fills of pits G5177 (L11) and the middle and upper fills of well G3160 (L12). Forms include a jar (Figure 3.24: P327b) and a vessel with characteristic swallow's-nest lugs (Figure 3.24: P407). Nine undiagnostic sherds of Ipswich Ware (199g) derived from pits G5311 (L11) and the upper fills of well G5006 (L13). The ceramic evidence suggests that activity associated with L11 and L12 may have continued into Phase 4b.

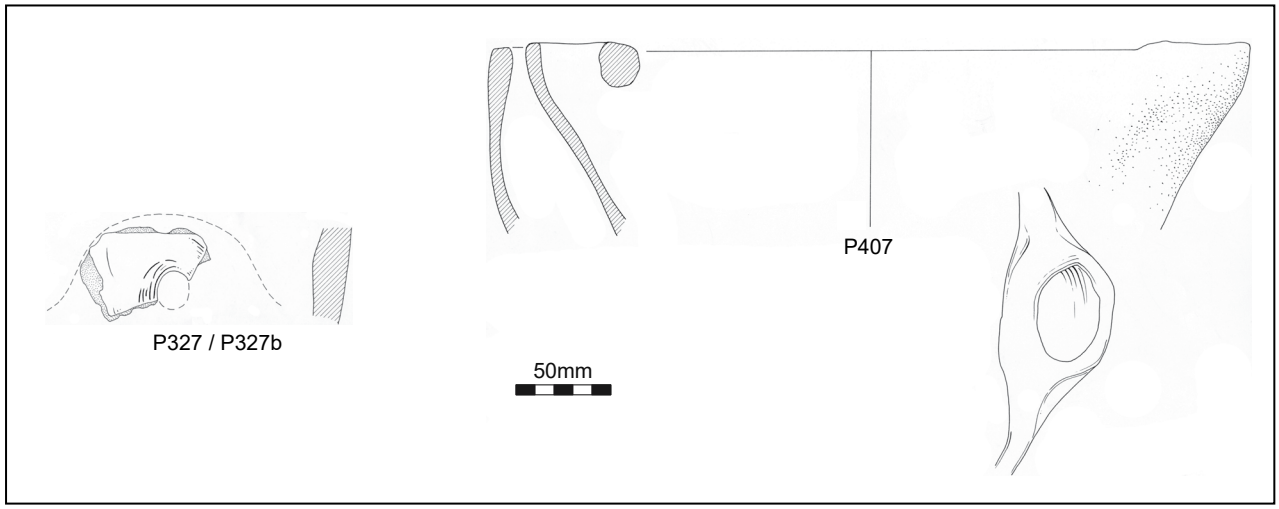


Figure 3.24: Selected pottery drawings from Period 4 features. Scale 1:4

Table 3.9: Phase 4 pottery quantification

Feature type	G No.	No. sherds	Wt (g)	MSW (g)
Building	G3266	51	322	6
	G3270	1	6	6
	G3681	4	21	5
	G3689	1	3	3
Fence	G3188	1	1	1
Sub-total		58	353	
Oven / hearth	G3167	4	14	4
	G3183	1	7	7
Sub-total		5	21	
Well / water-pit	G3150	1	16	16
	G3650	10	76	8
Sub-total		11	92	
Pit	G3157	2	44	22
	G3158	1	4	4
	G3186	2	14	7
	G3259	3	19	6
	G3648	17	94	6
	G3708	13	120	9
	G3715	4	16	4
	G3800	1	4	4
Sub-total		43	315	
Total		**117**	**781**	

MSW: mean sherd weight

Phase 4

Features within L15 contained 117 sherds (781g), from 111 pottery vessels. Residual prehistoric and Roman wares (three sherds: 16g) represent just 3% of the assemblage, but intrusive late Anglo-Saxon and medieval wares (67 sherds: 330g) account for 57%.

Only 48 sherds (441g) from 44 early to middle Anglo-Saxon vessels were recovered, the largest deposit deriving from building G3266 (Table 3.9). Sherds are predominantly sand-tempered (A16 and A18), undiagnostic, and all are undecorated. Five sherds of Maxey-type ware (49g) came from pits G3157 and G3186, well G3650, and postholes within building G3266. A low mean sherd weight and vessel to sherd ratio suggest that the pottery was not found in its primary place of deposition.

Phase 4b

The settlement that was present in Phase 4b yielded 676 sherds (11.2kg) from 507 pottery vessels. Residual prehistoric and Roman wares (25 sherds: 215g) comprise less than 1% of the assemblage, while 259 intrusive sherds (1.9kg) that are datable to the late Anglo-Saxon and medieval periods account for 38%.

Early and middle Anglo-Saxon pottery comprises 392 sherds (9.1kg) from 262 vessels. Middle Anglo-Saxon Maxey-type wares are dominant, totalling 80%, although only two sherds of contemporary Ipswich Ware occur. A range of predominantly sandy wares, comparable with those from preceding phases, constitute the remainder (see Table 8.3). The Maxey-type assemblage comprises bowls and jars with everted or incurving, irregular rims, and a number of vessels with swallow's-nest lugs.

Table 3.10: Phase 4b pottery quantification

Land-use area	Description	Saxon		Other		
		No. sherds	Wt (g)	No. sherds	Wt (g)	MSW (g)
L16	Settlement	173	3108	86	573	14
L17	Enclosure system	-	-	7	51	7
L18	Enclosure system	29	321	37	209	8
L19	Enclosured activity area	11	113	44	344	8
L20	Farmstead	4	14	37	303	8
L21	Farmstead	2	5	25	239	9
L22	Farmstead	22	371	6	49	15
L23	Settlement-related activity area	151	5169	41	374	29
Total		**392**	**9101**	**283**	**2142**	

MSW: mean sherd weight

Sand-tempered plain wares are mainly represented by body sherds and are largely undiagnostic.

Modest pottery assemblages derived from a range of feature types within eight Land-use areas, the largest and least fragmented deposits associated with settlement L16 and settlement-related activity area L23 (Table 3.10). The disuse fills of structures produced 45% of the assemblage, including those from two L16 SFBs. Pits and wells yielded 29% and 13% respectively, enclosure ditches 8%, and miscellaneous features the remainder. Variation occurs between the condition and fragmentation of pottery collected from different feature types across all Land-use areas. Mean sherd weights range from 51g (ponds) and 44g (wells), to 24g (pits), 18g (structures), and 10g (field/enclosure ditches). This suggests variable deposition processes, with higher weights representing deliberate episodes of disposal/dumping, and lower weights consistent with processes of natural accumulation. Intrusive pottery occurred in greater quantities than Anglo-Saxon wares across all Land-use areas, with the notable exception of L16 and L23. Anglo-Saxon pottery was entirely absent from enclosure system L17.

Other artefacts

The Other Artefacts assemblage from Period 4 has some commonalities across its sub-phases. There is evidence for ferrous smithing, although the quantities are limited; this suggests small-scale activity, perhaps to undertake repairs as required. The working of antler and animal bone would also appear to have been carried out on an 'as needs basis'. Modified antler tines and worked bone were both noted, while antler and bone objects – including combs, pin beaters, dress pins, an antler tool / knife handle and a buzz bone – indicate some of the possible products of this activity. There was also evidence for the processing of fibres (possibly both wool and flax), spinning and weaving. This suggests that the range of small-scale craft activity remained constant between the early and middle Anglo-Saxon periods, although the overall quantities were higher during the latter, reflecting an expansion of the settlement area.

Grain processing also continued, although lava, as opposed to sandstone, was the dominant stone type for querns from the middle Anglo-Saxon period onwards. This dominance of lava querns has been noted on other contemporary sites: at Flixborough, Lincolnshire, it was suggested that the dominance of lava querns may

be a reflection of a high-status site, with lava querns preferred despite the long distance from the source and the suitability of more locally available Millstone Grit (Wastling 2009a: 246).

No implements associated with crop cultivation or grain processing were recovered. A similar dearth of farm tools was noted at Flixborough (Wastling and Ottaway 2009: 244–5), Furnells, Raunds (Oakley 2009: 199) and North Elmham Park (Goodall 1980: 509–16). This pattern of under-representation of cultivation equipment could in part be due to the fact that wood formed the major component in these tools, and wood rarely survives on most sites. Additionally, iron was a small but important component of agricultural tools that was used sparingly in the earlier medieval period due to the high cost of production, which would have meant that iron tools were looked after and recycled rather than casually discarded (Steane 1985: 218).

Although the craft activities and evidence of agriculture suggest a degree of economic self-sufficiency, the presence of lava querns attests to access to imported/traded goods. In many cases imported goods were of a mundane, practical nature, for example the lava querns and the primary whetstones, but there are a few items within the middle Anglo-Saxon assemblage that are unrelated to subsistence needs. The most notable are five sherds of opaque black and dark olive-green glass from two or more globular beakers from Phase 4a settlement-related area L13 (OA60–62). Four of the sherds derive from the neck/shoulder of one or more globular beakers with yellow trailed decoration, and one sherd from the kick of a globular beaker decorated with unmarvered twisted two-colour reticella trails. Whether the vessels were continental imports, or the glass made in England by continental glass-blowers, is uncertain (Cramp 2000: 105). An increasing number of reticella-decorated vessels have been recovered from 7th–9th-century sites, particularly around the English and continental coasts of the North Sea and the English Channel; these vessels have been found predominantly on settlements with assumed wealthy or high-status elements (Steuer 1999: 411–13). Although the quantity of such vessels at Stratton cannot compare with the number of imported vessels found at Flixborough, Lincolnshire (Evison 2009: 103–13) or Fishergate, York (Hunter and Jackson 1993), the presence of such vessels on an inland rural settlement does suggest that at least one resident had access to long-distance trading routes and the ability to generate a surplus from farming-related activities that could be used to purchase exotic and high-value items.

Indications of high status are not confined to L13. Late 7th-century male burial 7416 in cemetery L9 (Phase 4a) was accompanied by a spearhead, buckle, knife and box/coffer mounts. Well-furnished male burials such as this were only practised by higher-status groups and individuals in the 7th century (Hines 2013: 536), suggesting that this particular man held an elevated position within his own family and/or the wider community.

Although the Other Artefacts assemblage from Period 4 does provide some insight into the economy of the settlement and the activities undertaken, and does suggest that some occupants were of higher status and/or greater wealth than others, much of this activity cannot be directly associated with specific structures. Several instances of intrusive activity were also noted, often appearing to be the result of late Anglo-Saxon / Saxo-Norman activity in Period 5. Two deposits in Phase 4 (G3269 and G3708) contained portions of Type 2 'Norman' horseshoes, the earliest known example of which was found in a 10th-century deposit in London (Clark 1995: 95), while other early examples have been found in early to mid-11th-century deposits at York (Ottaway 1992: 709). Pit G3800 (L15), in addition to containing a composite comb dating to the 7th–9th century, also had a silver coin (possibly a halfpenny) of 9th–10th-century date (RA1111).

The fill of SFB G3655 (Phase 4b) yielded a single-ended and eyed weaving tool, a form thought to be associated with the two-beam vertical loom. Walton Rogers notes that there is no evidence for the use of this loom form in the early and middle Anglo-Saxon periods in England (1997: 1759–60), while evidence from Winchester suggests that the two-beam loom seems to have come into use around AD 900 (Keene 1990: 203–8). The deposits found in the hollow overlying well G5115/5117/5313 appear to have formed in the late Anglo-Saxon / Anglo-Scandinavian period, as suggested by the presence of a tin-coated harness mount (OA199), an iron strap guide (OA412), a decoratively notched and eared bone pin (OA249), and a form B spindle whorl (OA102), all dating to the 10th–11th century.

Medieval and later intrusions were also evident. The fill of a ditch in Phase 4a enclosure system L6 produced a copper alloy buckle closely paralleled by examples from deposits of AD 1350–1400 from London (Egan and Pritchard 1991: figure 61), while finds of a medieval and a post-medieval horseshoe were noted from the fills of hearth/oven G197 and postholes G71 respectively in L20.

Chapter 4.
Late Anglo-Saxon / Saxo-Norman settlement (Period 5: *c.* AD 850–1150)

Period 5 structural narrative

Settlement remains at Stratton in the late Anglo-Saxon / Saxo-Norman period covered a larger area than before, although their density may have decreased slightly (Figure 4.1). Fewer buildings were constructed than in the middle Anglo-Saxon period, and – with one notable exception – little effort was expended in creating new enclosure ditches. In all likelihood, however, the enclosure system established in Phase 4b remained at least partially in use, and some of the buildings constructed in Phases 4 and 4b may still have been extant. New enclosures on a broadly similar alignment to the Phase 4b fields were formed where the settlement expanded to the east and west, and it is clear that enough of the earlier landscape was still visible for its layout to be respected. Cutting through this landscape, however, were the extensive curvilinear ditches that were dug in the later stages of Phase 5a. While respecting the overall orientation of the landscape, their curvilinear nature was in stark contrast to the rectilinear layout of both the earlier enclosures and those that came later. The reason behind this marked – and short-lived – change in style is uncertain, but it is suggestive of a different cultural ethos, and a brief period of external influence on local practices was perhaps responsible. Is this evidence of the impact of Danelaw at Stratton?

Phase 5a

The remains that can be assigned to the earlier part of Period 5 primarily comprise a band of curvilinear ditches that extended for almost the entire length of the excavated areas (Figure 4.2). Stratigraphic relationships suggest that at least some of the features in Phase 5 preceded the construction of these boundaries (Figure 4.1), but dating evidence overall suggests that the majority were formed at a later date.

L24

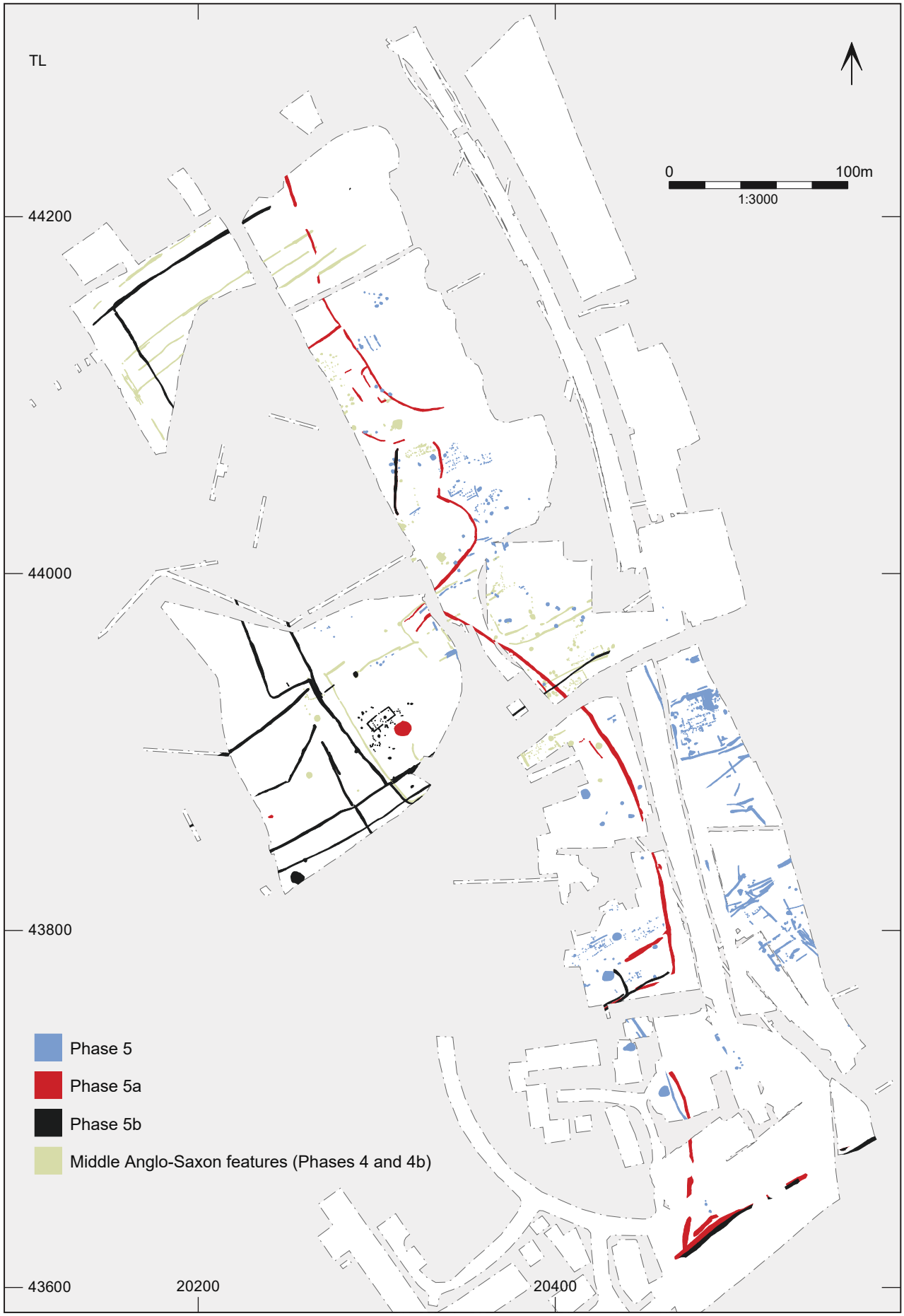
The low-level activity established during Periods 3 and 4 in the central-western area of the excavations seems to have largely ceased by the late Anglo-Saxon period. Only one new feature was identified: inhumation burial G5261 (Figure 4.2), radiocarbon-dated to cal. AD 870–990 (Table 4.1). The only other activity represented in L24 was the final infilling of Phase 4b well G5313 – yet this produced a remarkably large assemblage of finds, with 6kg of pottery (mostly St Neots Ware) and a non-ceramic assemblage that includes three bone pins; two whetstones; a small amount of smithing slag; a copper alloy ring; and a chisel, two buckles, an arrowhead, a brooch, a ferrule, a flesh hook, a key, four knives, shears, a spur and a spearhead that are all made of iron. It is possible that the hollow that remained in the top of the well was simply used as a rubbish pit, yet the volume of items recovered, in comparison with what came from the rest of the excavations, might indicate that at least some of these objects were deposited as votive offerings, perhaps to mark the well's closure.

L25 and L26

Apparently abandoning the network of rectilinear fields established on a NNW–SSE alignment in the middle Anglo-Saxon period, Phase 5a saw the creation of a series of curvilinear boundary ditches (L26) on a similar alignment, extending along almost all of the excavated area (Figure 4.2). The central ditch seems to have had a precursor (L25), although little survived of it, while several of the central and southern boundaries displayed evidence of recutting. Few finds were recovered from the lower fills of the ditches, although slightly more came from their upper fills L40 (Phase 5b).

This arrangement of boundaries seems not to have lasted for long, with a stratigraphically later rectilinear enclosure system established in Phase 5b. The northernmost two ditches may even have been deliberately backfilled: nearly all the finds in G3093, G3095 and G3570 are residual, and the lack of any later material suggests that the earthworks had been filled in completely prior to the medieval activity that took place here in Period 6. Later material was recovered from ditch G493; the arrangement of this boundary and the ones to the south was retained for longer, with further remodelling in Phase 5b before a rectilinear layout was re-established in this part of the site as well.

Figure 4.1 (next page): Plan of all excavated remains from Period 5 (late Anglo-Saxon to Saxo-Norman) overlain on the Phase 4/4b plan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100m
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44200
44000
43800
43600
20200
20400
Phase 5
Phase 5a
Phase 5b
Middle Anglo-Saxon features (Phases 4 and 4b)

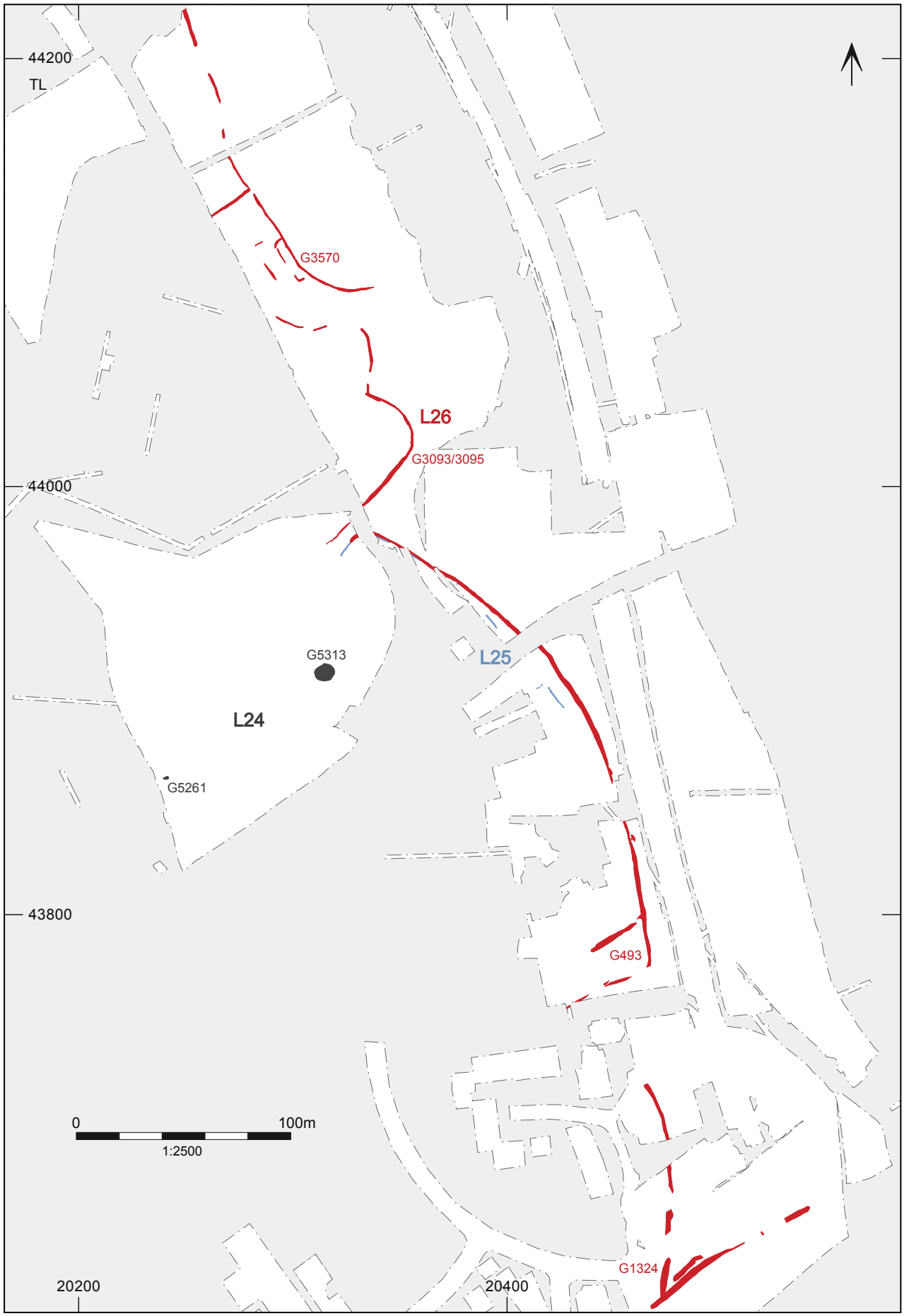
44200
TL
44000
43800
20200
20400
G3570
L26
G3093/3095
G5313
L25
L24
G5261
G493
G1324
0
100m
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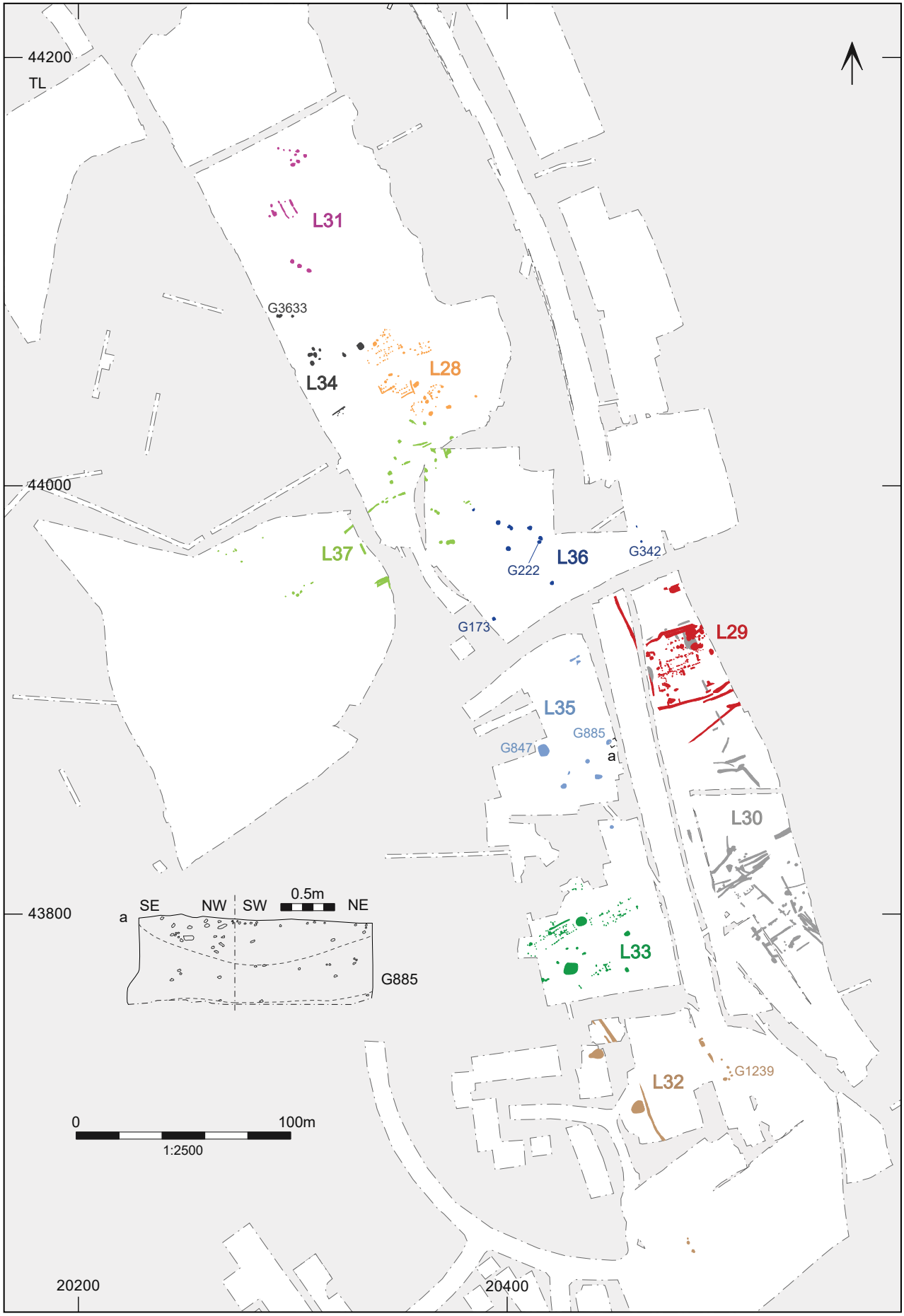
Table 4.1: Radiocarbon dates from Period 5 deposits

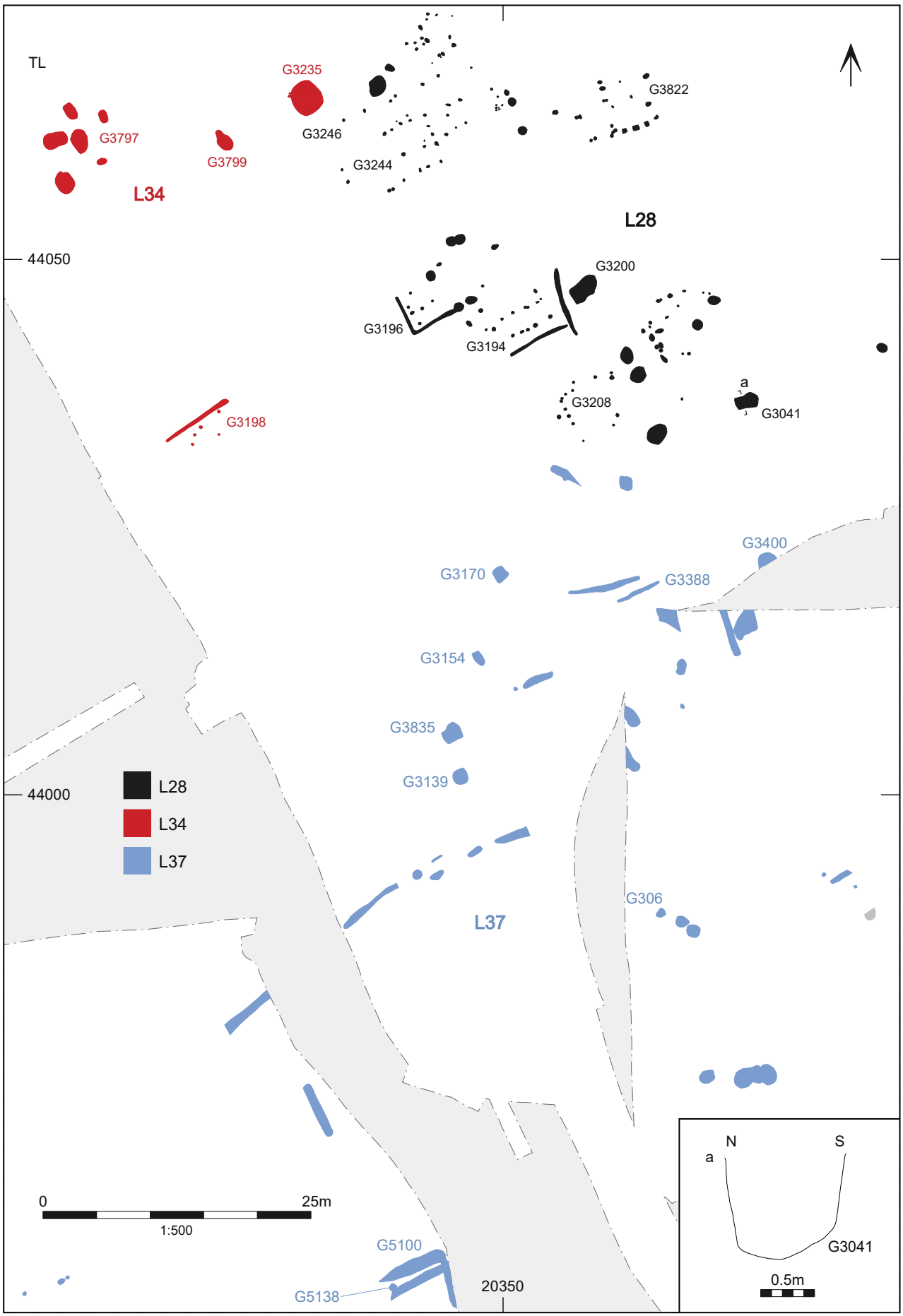
Phase	Land-use area	Parent feature	Lab No.	Description of sampled deposit	Material	Radiocarbon age (BP)	Calibrated date (95% confidence)
5a	24	Grave G5261	OxA-23021	Fully articulated inhumation 7420	human bone: left femur	1128 ±25	cal AD 870–990
5a	24	Well G5313	SUERC-30792	Potsherd from fill of well	carbonised residue: fabric type B01	1105 ±35	cal AD 880–1020
5a	24	Well G5313	OxA-22925	Articulating sacral and lumbar vertebrae and pelvis from fill of well	animal bone: Caprid sacral vertebra	1117 ±25	cal AD 880–990
5a	24	Well G5313	OxA-39029	Hearth rakings in well	charred wheat grain	1224 ±18	cal AD 706–728 or 772–881
5a	26	Ditch G1387	SUERC-30798	Potsherd from fill of ditch	carbonised residue: fabric type A18	1615 ±35	cal AD 350–540
5	28	Pit G3041	OxA-38659	Burnt deposit in pit	charred barley grain	1001 ±20	cal AD 992–1048 or 1083–1126 or 1140–1148
5	29	Ditch G1780	SUERC-30793	Potsherd from deposit of occupation debris in fill of ditch	carbonised residue: fabric type B01	950 ±35	cal AD 1010–1170
5	30	Pit G2173	OxA-23194	Collapsed wooden hurdle in a pit	wood: ?Corylus avellana; roundwood	1001 ±27	cal AD 990–1150
5	30	Pit G2173	SUERC-30802	Collapsed wooden hurdle in a pit	wood: ?Corylus avellana	970 ±35	cal AD 990–1160
5	34	SFB G3235	OxA-22924	Bone from articulating dog radius and ulna in fill of SFB	animal bone: dog; radius	1165 ±25	cal AD 770–970
5	34	SFB G3235	OxA-39339	Burnt deposit in SFB	charred barley grain	1164 ±21	cal AD 772–790 or 820–901 or 916–974
5	37	Layer G3402	OxA-23229	Potsherd from layer above pit	carbonised residue: fabric type B01	1025 ±27	cal AD 970–1040
5	37	Hearth G5100	OxA-22922	Hearth deposit	charcoal: Corylus avellana	1074 ±24	cal AD 895–1020
5	37	Hearth G5100	SUERC-30102	Hearth deposit	charcoal: Quercus spp. sapwood	1170 ±40	cal AD 720–980
5b	42	Grave G5681	SUERC-30098	Articulated inhumation	human bone: infant distal femur	965 ±40	cal AD 990–1170

The difference in character between these curvilinear boundaries and their rectilinear predecessors and successors suggests an external influence. Their creation in possibly the late 9th century would tie in with them being the product of the imposition of Danelaw, with the land passing into the control of someone who came from a different cultural background, not just a different lord of the manor, but without tighter dating evidence or greater evidence of Viking cultural material this can only be supposition.

Figure 4.2 (previous page): Overall plan of all excavated remains from Phase 5a

Figure 4.3 (opposite page): Overall plan of all excavated remains from Phase 5, with section drawing


44200
TL
L31
G3633
L34
L28
44000
L37
L36
G222
G342
G173
L29
L35
G885
G847
a
L30
43800
a
SE
NW
SW
0.5m
NE
G885
L33
L32
G1239
0
100m
1:2500
20200
20400


TL
G3235
G3822
G3797
G3799
G3246
G3244
L34
L28
44050
G3200
G3196
G3194
G3208
a
G3041
G3198
G3400
G3170
G3388
G3154
G3835
G3139
44000
L28
L34
L37
G306
L37
0
25m
1:500
G5100
G5138
20350
N
S
a
G3041
0.5m

Phase 5

L28

Settlement focus L28 included at least four buildings (Figures 4.3 and 4.4). G3196 was constructed using a combination of ground-beam slots and postholes; G3194 may have had a similar style of construction, although the less substantial and slightly curved nature of the linear slots might indicate that they were designed for drainage rather than to hold ground beams. G3822 was constructed entirely from posts set into the ground, with no evidence of any drainage gullies; the close proximity of some of the postholes suggests that they represent a phase of repair to the structure. G3244 was the largest building, with at least two rooms; its south-west end appears to have extended beyond the curvilinear ditched boundary L26, suggesting that it predated the revised layout of enclosures. Fence G3246 to the north of the building was probably associated with it, also appearing to have extended beyond boundary L26; whether the fence and building were contemporary with the other features in L28 or slightly earlier, however, is unclear.

The total number of buildings in L28 may have been six, although the other two are doubtful. G3200 represents a possible SFB; a posthole was tentatively recorded in

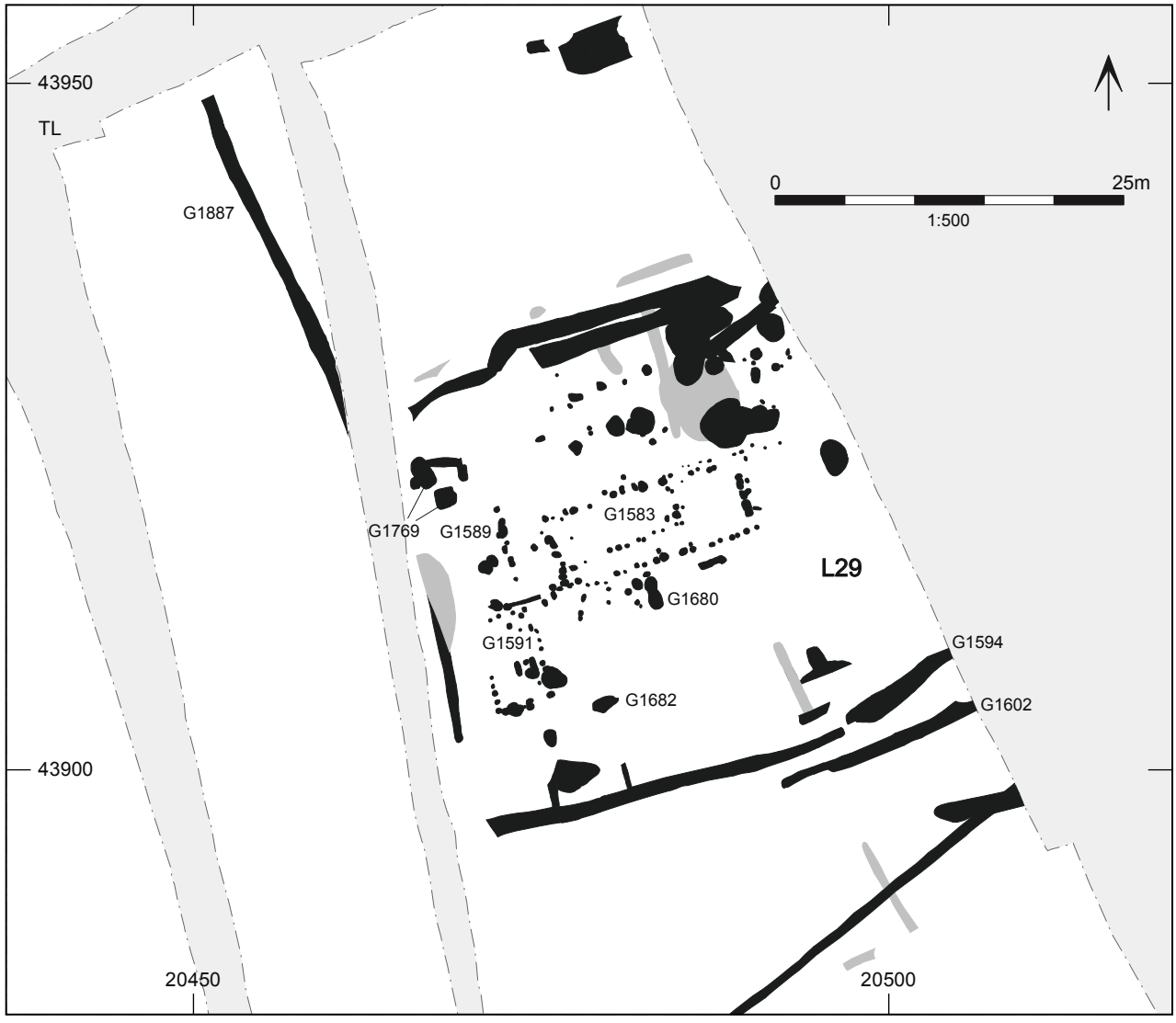


Figure 4.5: Close-up plan of land-use area L29, with other Phase 5 features in grey

Figure 4.4 (opposite page): Close-up plan of land-use areas L28, L34 and L37, with section drawing

its base, but the sides and base were more irregular than those of the definite SFBs at Stratton. G3208 comprised a group of 15 postholes which may represent a building, although the irregularity of their layout in plan might indicate that they merely formed an animal pen. Further pens may have been defined by the other clusters of postholes in L28.

Several fairly large pits were present, but only G3041 (Figure 4.4:a) produced many finds, including three fragments of quern stone. Recorded as two intercutting pits, the largest was *c.* 1.5m in diameter and nearly 1m deep; its profile, however, raises just the possibility that it was a large post-pit, with the smaller, western 'pit' in fact representing a ramp to assist with lowering the post into the hole. Radiocarbon-dating of a charred grain from the larger pit obtained dates of cal. AD 992–1048 or 1083–1126 or 1140–1148 (Table 4.1).

L29

Farmstead L29 was probably established slightly after the settlement-related activity of L30 began, as suggested by the limited stratigraphic evidence (Figure 4.5), but it represents the earliest substantial settlement remains at the eastern side of the excavated areas. The main building was G1583, which contained at least two rooms and possibly a corridor; G1589 added a further room to the west, although it may have been a lean-to structure appended to the main building. Perpendicular to the main building was a smaller structure G1591, with hearth G1682 just a few metres to its east, while a line of stake-holes to the north of G1583 probably represents a fence. Pits G1680, near what was probably the main entrance to building G1583, contained enough pottery and animal bone to suggest that they were used for the disposal of rubbish. Pits G1769 are likely to have had a

Figure 4.6: Close-up plan of land-use area L30

similar function: their faunal assemblage matched that from G1680, though they contained less pottery.

The buildings appear to have been set within their own enclosure, whose western ditch (G1887) later came to define part of the main medieval trackway across the excavated areas. This enclosure was perhaps subdivided by the east–west ditches to the north of the main building, with the southern half characterised by domestic activity and the northern half left open for pasture. There was evidence of a trackway to the south of the enclosure, where a spread of gravel G1593 between two flanking ditches (G1594 and G1602) suggests the presence of a more substantial road than just a droveway. The gravel may have been quarried from some of the large pits to the north of building G1583.

L30

The fragmented remains in L30 represent the origins of settlement in the south-eastern part of the excavations, occupying the western end of the area that developed into the medieval village of Stratton (Figure 4.6). Several alignments of ditches were present, and it is clear that the grid-planning employed in Phases 4a and 4b was either not used here or at the very least not applied as rigorously, or perhaps as expertly. What is less clear is whether the differences in alignment represent more than one phase of ditches, or a more complex arrangement to facilitate the movement of livestock – heavy truncation by later features has made it hard to recreate a coherent image of this early activity.

Although only one building (G2005) can confidently be associated with L30, the settlement's remains covered a relatively extensive area, as attested by the presence of numerous pits, gravelled surfaces and other occupation-related layers. Few of the pits had identifiable functions, but the clay lining inserted in G2127 suggests that it was designed for storage, while undercutting of G2116's sides was probably caused by its use as a well or water-pit. A wooden hurdle was recovered from pit G2173, whose vertical sides it probably once lined; the pit's function is unclear, but the fairly large quantity of animal bone recovered from it suggests that it ended up as a rubbish pit for disposing of butchery waste. Larger volumes of pottery were recovered from across L30 than was generally the case in previous periods, but this is likely to be simply a reflection of the nascent proliferation of St Neots Ware pottery at this time – no particular concentrations were present to suggest a focus of domestic or industrial activity.

L31

With a shift in settlement away from the northern edge of the excavated areas, the fragmentary remains in

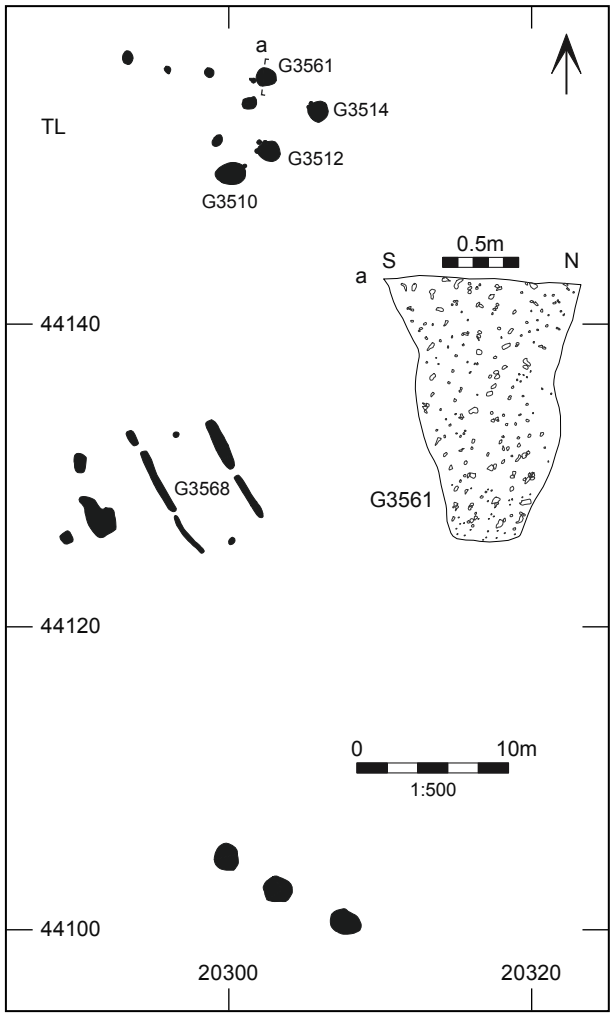


Figure 4.7: Close-up plan of land-use area L31, with section drawing

L31 represent the northernmost evidence of domestic or industrial activity in the later Anglo-Saxon period (Figure 4.7). The meagre collection of finds recovered from them is actually more characteristic of assemblages from the latter part of Period 4; the southern three pits, however, were stratigraphically later than ditches L26 in Phase 5a, and the lack of a greater assemblage of late Anglo-Saxon pottery may be due to L31's position at the margin of settlement.

The activity in L31 seems to have been clustered around building G3568, which was represented by two parallel rows of beam slots with a posthole in between them at either end. Three much smaller structures to the north (G3510, G3512 and G3514) had the appearance of mini-SFBs, each consisting of a shallow pit measuring *c.* 1.4m wide with four or five postholes around their outer edge. The function of these is unclear, but they may have been used for craft activities – with water supplied by well G3561 (Figure 4.7:a) just a few metres away – or perhaps as storage buildings. A similar feature was

present further south in L37, though with only two postholes. It is difficult to know what to make of the flint assemblage recovered from the central structure G3512 – the presence of 65 flints including nine blades suggests that they were more than residual, although what they might have been used for is unclear.

L32

The southward expansion of settlement at Stratton in Phase 4a, represented at its extreme by L10, appears to have stagnated in Period 5. Few new features were created – G1239 was the only possibly structure, perhaps forming a short fence line (Figure 4.3) – and much of the culture material recovered from L32 relates to the infilling of features from L10, in particular wells G1001 and G1095. Agricultural soil G2479 was a patchy deposit which may in fact belong to several different periods; although some of it predates Period 6 stratigraphically, its non-ceramic finds assemblage suggests that other parts accumulated at a later date.

L33

The settlement nucleus represented by L33 was dominated by two longhouses, G538/540 and G617 (Figure 4.8). Dating evidence is insufficient to judge whether the two were contemporary, but there is nothing to contradict this, with well G519 presumably shared between the two. There is some suggestion that the eastern longhouse was separated from the well by a fence (G559), but this may in fact have been part of a slightly misaligned westward extension of the building – a similar arrangement of postholes was present at the corresponding end of the western one. Longhouse G538/540 was divided into three rooms, with at least two evident in G617, while evidence for other features such as a hearth and a recessed doorway was also present in the former. A gully to the north of G538/540 may have been for the collection of rainwater from the eaves.

One interesting aspect of the eastern longhouse is that it was constructed partially over the top of the Phase 4a cemetery L9. This could be a sign of discontinuity between the middle and late Anglo-Saxon periods, at least in this part of the site: the building's construction in this precise location may indicate that there was no longer any knowledge that a cemetery – nor indeed a possible mortuary structure – had once been there. Alternatively, it may be a sign that land which was previously sacred had come to be viewed differently by the people who constructed the building.

A smaller building was present to the south of the longhouses (G570), near well G516. A buried soil

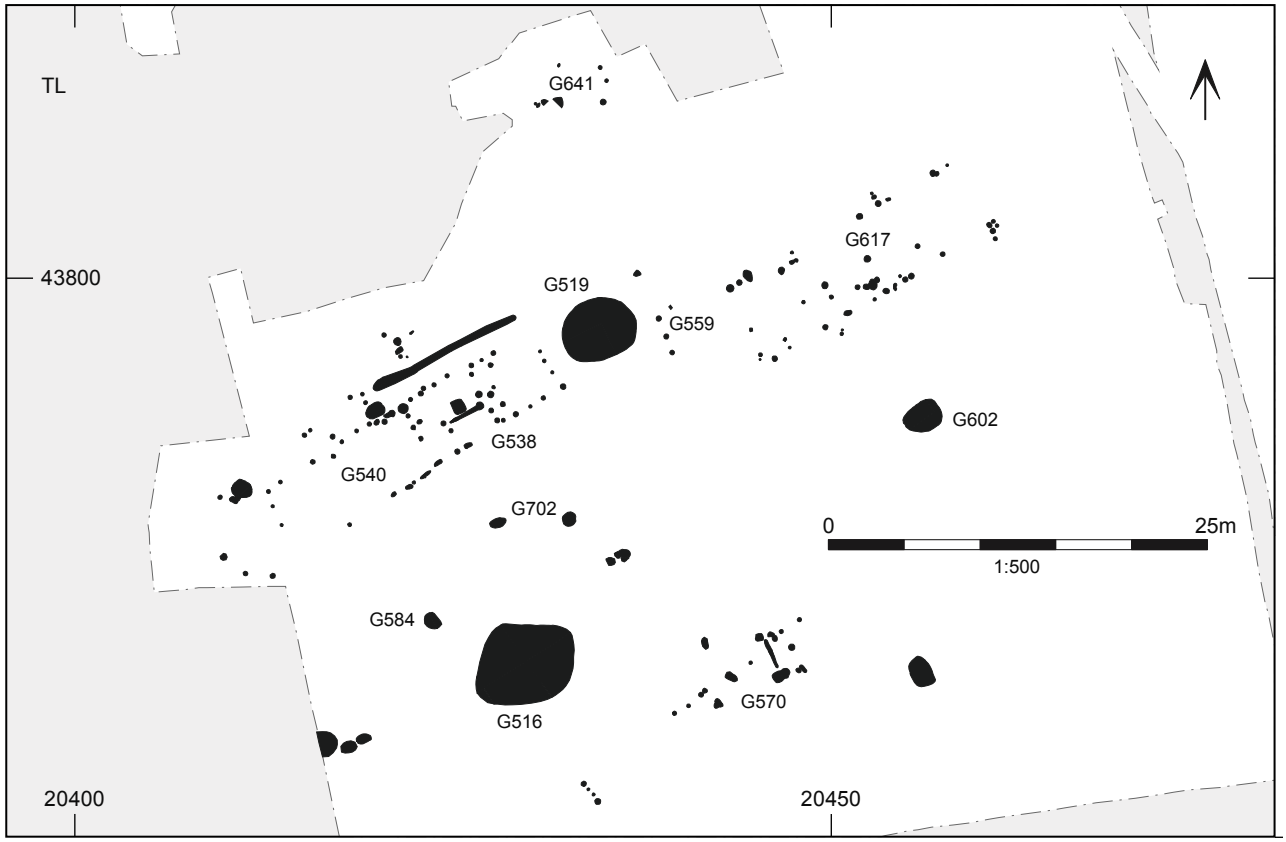


Figure 4.8: Close-up plan of land-use area L33

between the two filled what appeared to be an erosional hollow caused by trampling; this perhaps indicates that animals were allowed to drink from the edge of the well, whose upper edges were relatively shallow, although the internal divisions of building G570 make it more likely to have been used by humans than animals. A second, insubstantial building may have lain further north, but the structural nature of G641 is unclear.

Water-pit G602 and rubbish pits G702 lay between building G570 and the two longhouses, making it unclear to which building each related. The rubbish pits did, however, produce evidence of metalworking, yielding 4.5kg of waste products from iron smithing. Both wells contained fairly large assemblages of animal bone, but it is unclear whether this resulted from the domestic processing of carcasses or something on a more substantial scale; the comparatively large amount of pottery from G516 perhaps suggests the former.

L34

The features in L34 comprised SFB G3235, a possible building G3198, and a spread of pits (Figure 4.4). Their spatial and temporal location within the sequence of settlement at Stratton is open to debate: while it is possible that they represent a self-contained farmstead, they may equally have been closely associated with L35 to the east, and/or L28 in Phase 5a.

The volume of 12th–14th-century pottery in the upper fills of the pit that formed part of SFB G3235 suggests that it was abandoned and left to fill up naturally once the building went out of use, other than perhaps being used as an *ad hoc* rubbish pit during Period 6. A fairly large assemblage of other finds was recovered alongside the pottery, including two ceramic loom weights, a bone buzz-toy, an iron buckle, two flint tools, fragments of quern stone, and a complete prick spur. These finds are more consistent with the date of the building's construction and use, although no direct association with its use should be assumed. Most of the other cultural material from L34 came from pit cluster G3797 and rubbish pit G3799: the former produced an iron spur buckle and three further flint tools, among other items, while the latter contained a bone pin, fragments of quern stone, and a fairly large assemblage of St Neots Ware pottery. A few sherds of pottery were the only artefacts recovered from G3198, whose function is unclear; comprising just a possible beam slot and five postholes with little discernible pattern, its status even as a building is questionable.

L35 and L36

The central part of the excavated areas at Stratton contained a scatter of pits, postholes and wells (Figure 4.3) that are likely to have been contemporary with Period 5 activity, but which were not obviously related to any of the identified farmsteads. Those in L35 – wells G847 and G885 (Figure 4.3:a) in particular – are likely to have been associated with some focus of activity; the relatively small pottery assemblage from them suggests a late Anglo-Saxon date, but it is possible that they related to Phase 4b farmstead L22 or the spread of activity L50 in Phase 6. The features in L36 were quite widely scattered and contained few finds, with the exception of a moderate assemblage of pottery from pit G342; an iron knife also came from pit G173. Pit G222 had three postholes in its base, suggesting that it had some form of structural function.

L37

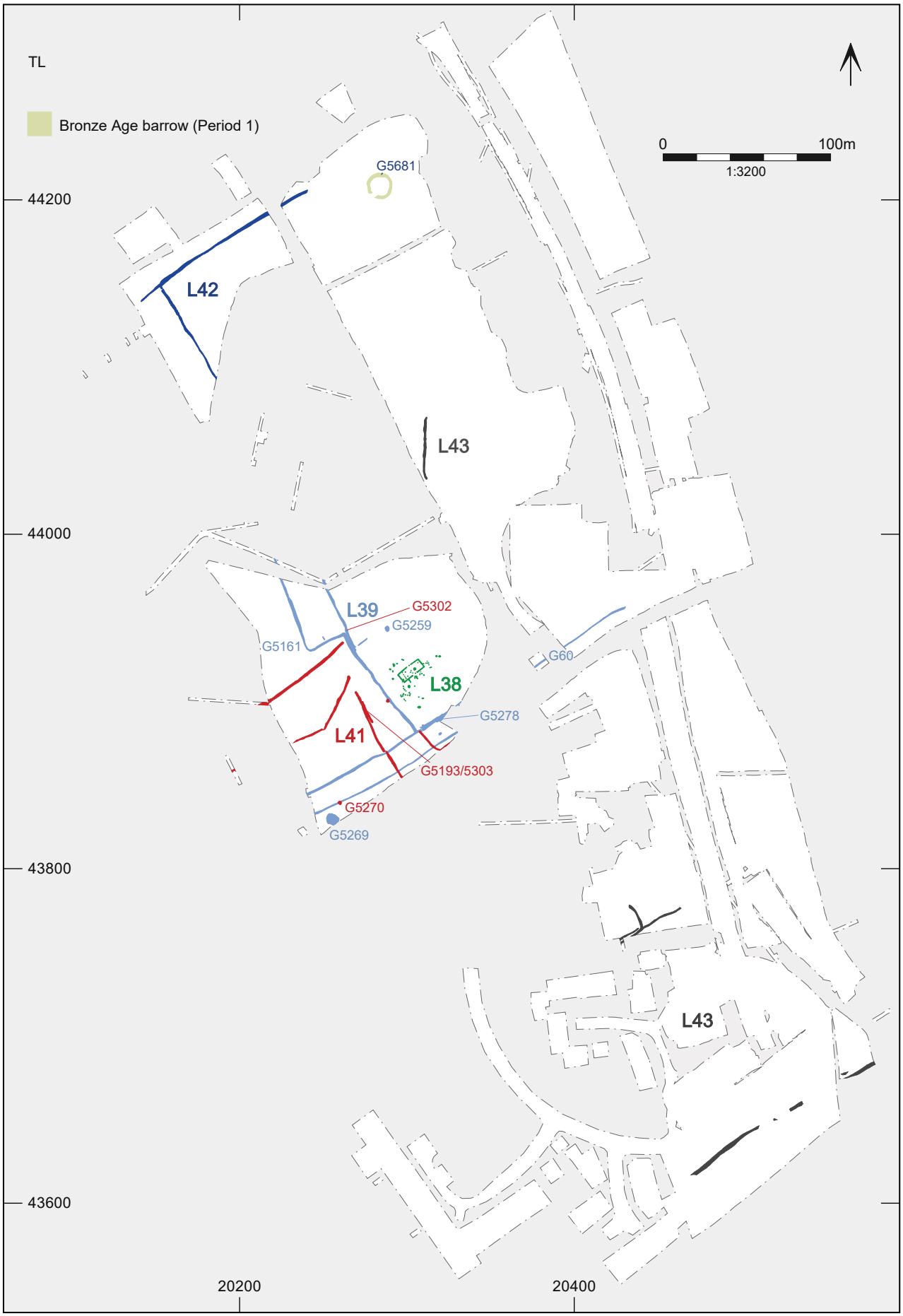
L37 represents a disparate group of features located largely within the area covered by Phase 4b enclosure system L18 (Figure 4.4; cf. Figures 3.20 and 4.1). It is likely that the enclosure system was at least still visible in the form of earthworks or hedgerows – the ditches at the centre of L37 certainly seem to respect its layout – but it is unclear whether there was temporal continuity: while this could usually be assumed, L37 might in fact represent a reuse of the earlier enclosure system once the short-lived layout of L26 (Figure 4.2) had been abandoned.

No buildings were conclusively identified as part of L37, but G3139, G3170 and G3835 are thought to represent very small SFB-type structures, similar to those in L31. The third of these had no associated postholes, but its similarity in size and shape to the other two supports a similar interpretation. G3170 and G3835 lay a few metres either side of hearth G3154; no trace was evident of a building that contained the hearth, but it seems probable that either one originally existed, with G3170 and G3835 on either side acting as ancillary structures, or that the hearth was an external feature designed to directly serve the two SFB-type structures.

A further focus of domestic or industrial activity was hearth G5138 to the south, with ash pit G5100 next to it; its interleaved layers of silt and ash point to the numerous episodes at which material was raked out from the hearth, interspersed with the natural accumulation of silt. Few finds in general were recovered from the features in L37: only pit G3400 produced much in the way of pottery, while most of the non-ceramic assemblage comprises nearly 3kg of fire-cracked flint from the ash pit.

Phase 5b

As the influence of the long, curving boundaries established in Phase 5a began to diminish, albeit after a degree of remodelling and enhancement, a more rectilinear pattern was reinstated to their west


TL
Bronze Age barrow (Period 1)
0
100m
1:3200
44200
44000
43800
43600
20200
20400
G5681
L42
L43
L39
G5302
G5259
G5161
G60
L38
G5278
L41
G5193/5303
G5270
G5269
L43

(Figure 4.1). The northern boundaries largely reused the alignments established in Phase 4b; those to the south were also mostly on this alignment, although this represents a slight anticlockwise rotation in comparison with their predecessors. This area was also lived in conclusively for the first time: whereas previous evidence of settlement here was restricted to a thin scatter of wells and pits, more suggestive of industrial than domestic activity, a longhouse was constructed on the new alignment during Phase 5b (Figure 4.9).

L38

The only area of domestic activity assigned to Phase 5b was L38, which comprised a spread of pits and postholes around longhouse G5108 (Figure 4.10). The longhouse had a slightly off-centre entrance on either side, indicating the presence of a cross-passage; a posthole on either side of its south-east entrance suggests that this was the building's main point of access, with some of the postholes outside it possibly forming a porch. A line of postholes in the building's south-west end created a narrow partition, but the function of the other postholes within the building, assuming that they were contemporary with it, is unclear. The building appears to have contained quite a large storage pit, 1.65m deep (Figure 4.10: a), although dating evidence for this pit is uncertain and it may have been related to Phase 4b activity in L23.

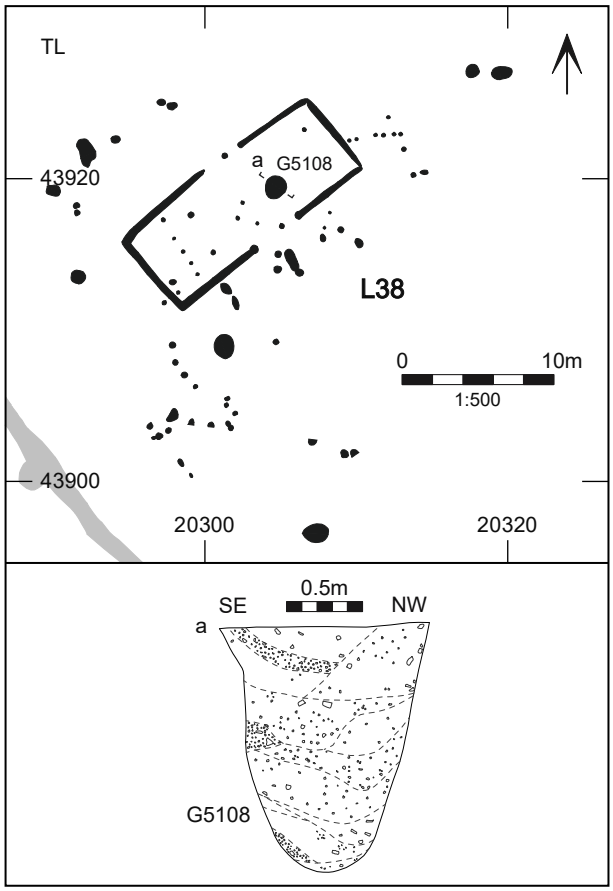


Figure 4.10: Close-up plan of land-use area L38, with section drawing

L39

The enclosure system defined by L39, in which farmstead L38 was set, extended beyond the north and west of the excavated areas (Figure 4.9). Assuming that ditch G60 to the east was part of the same enclosure system, then it seems that the fields were established after the boundaries of L40 (and presumably L43) had gone out of use. Too little of the enclosure system was revealed to determine its overall articulation, for example whether it joined up with L42, but a wide droveway can at least be identified to the south. Other than farmstead L38, one possible further building was identified: G5259, which may have been an SFB.

Most of the finds recovered came from the periphery of farmstead L38, in particular from ditch G5161 and pits G5278 – the former's assemblage included a door stud that is likely to have come from the longhouse in L38, as well as two buckles, while the latter's includes two iron knives. The main other concentration was from the upper fill G5269 of well G5265 that was established in Phase 4b – this produced a fish hook and a fragment of quern, while a brooch pin and a possible cauldron hook were also recovered from the immediate vicinity. A moderate assemblage of worked or struck flint was also recovered, but this is assumed to be residual: the material was spread widely rather than concentrated, and the pottery assemblage also points towards a significant degree of residuality.

Figure 4.9 (opposite page): Overall plan of all excavated remains from Phase 5b

L41

The ditches in L41 represent a remodelling of enclosure system L39 (Figure 4.9), cutting across its droveway to the south, indicating that it was no longer in use. It is unclear whether the fields were for arable or pastoral use; the irregularity of their layout suggests the latter, creating opportunities to funnel animals towards gaps between the ditches, but equally the gaps were all wide enough to allow the passage of carts for transporting crops. G5270, which contained an antler comb, may have been a small SFB. Two partially articulated dog skeletons (G5302 and G5303) were discovered in the tops of ditches, the former buried within the top of one of the L39 ditches.

L42

L42 represents the beginnings of a enclosure system set over the top of, and on a slightly different alignment to, enclosure system L17 that was set out in Phase 4b (Figure 4.9; cf. Figure 4.1). The northern boundary may have been more extensive to the east, being masked by recutting during the medieval period. Sufficiently few finds were recovered from the ditches to suggest that there was no domestic activity within the immediate vicinity. Funerary activity was identified, however: the grave of an infant inhumation burial G5681 had been dug into the silted-up ditch of Period 1 round barrow L2, which radiocarbon dates suggest was done between the early 11th and mid-12th century AD (Table 4.1).

L43

The long, curving boundary ditches that were established in Phase 5a (L26) were remodelled or expanded in a few places by L43 (Figure 4.9; cf. Figure 4.1). This seems to have happened before the ditches were more extensively remodelled by L44, although the time between the two events is unlikely to have been great.

Artefacts

Pottery

Phase 5a

Features assigned to three Phase 5a land-use areas yielded 722 sherds (8.1kg) from 539 vessels. In common with the Phase 5 assemblage, the pottery is of mixed date: the proportion of residual prehistoric, Roman and particularly Anglo-Saxon material is higher (18%), while the proportion of intrusive medieval wares (50 sherds) has dropped from 22% to 7%.

Table 4.2: Phase 5a pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L24	Dispersed activity	505	5990	12
L25	Fragmentary remains of an enclosure	1	5	5
L26	Series of fields/enclosures	216	2112	10
Total		**722**	**8107**	

MSW: mean sherd weight

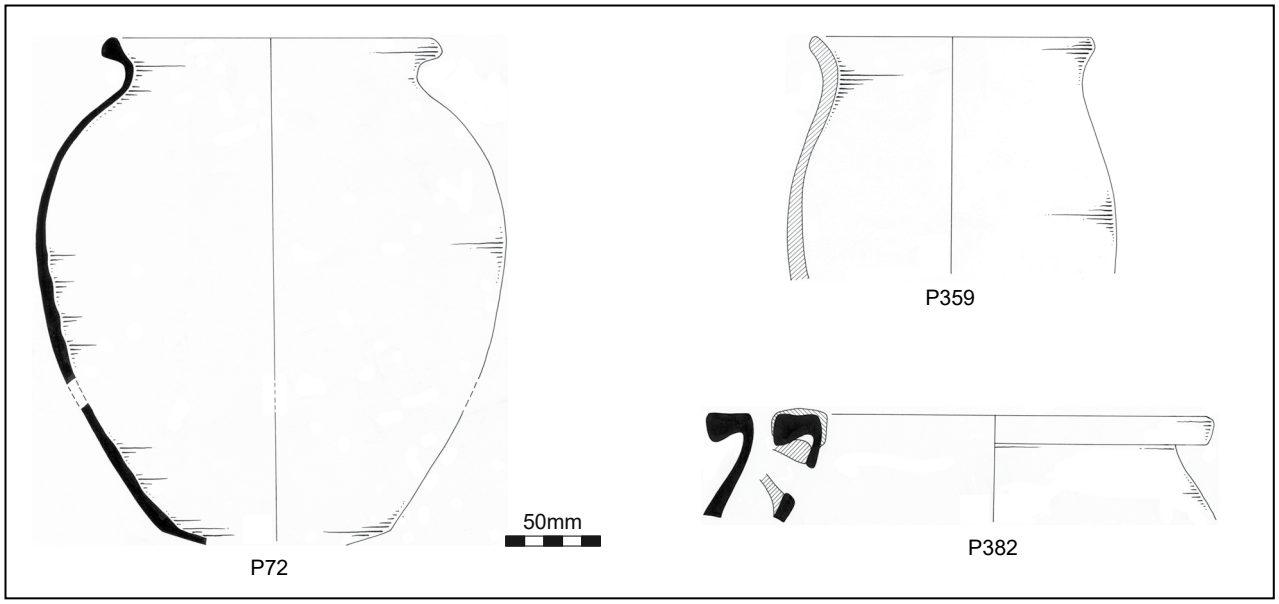


Figure 4.11: Selected pottery drawings from Period 5 features. Scale 1:4

Table 4.3: Phase 5 pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L28	Settlement focus	114	1138	10
L29	Farmstead	232	1732	7
L30	Field/enclosure system	351	3682	10
L31	Settlement-related activity area	26	304	12
L32	Dispersed activity area	74	665	9
L33	Settlement focus	94	1004	11
L34	Settlement-related activity area	199	1918	10
L35	Settlement-related activity area	72	549	8
L36	Dispersed activity area	80	689	9
L37	Dispersed activity within fragmentary enclosure system	147	1492	10
Total		**1389**	**13,173**	

MSW: mean sherd weight

The majority of the assemblage derived from L24 (Table 4.2), associated with the final infilling (G5119) of Phase 4b well G5115. Pottery from this deposit is predominantly St Neots-type wares; diagnostic forms are mainly jars and bowls, including three spouted examples, and a single sherd of Thetford-type ware. Approximately half of the St Neots-type wares retain evidence for use, in the form of sooting or residues, suggesting a secondary use for the feature as a rubbish pit. Most vessels are highly fragmented, and, in contrast with the numerous non-ceramic artefacts occurring in the same deposit, there is no suggestion that the pottery carried any votive significance.

A single residual early Anglo-Saxon sherd (5g) derived from the backfill of inhumation burial G5261.

The assemblage collected from L26 displays a high degree of residuality, with 50% of the pottery dating to the early and middle Anglo-Saxon periods; this probably originated from the underlying Period 4 settlement core. The largest deposit, weighing 566g, derives from ditch G1324, and includes 44 sherds (385g) from an early to middle Anglo-Saxon jar (fabric A05; Figure 4.11: P359). The vessel appears to have been inverted and deliberately set within the feature as a placed deposit. In contrast with the St Neots-type wares from L24, most vessels are undiagnostic and show little evidence for use, although single sherds from a Thetford-type ware jar and spouted pitcher (Figure 4.11: P382) were identified.

Table 4.4: Phase 5 pottery from buildings

Land-use area	Structure	No. sherds	Wt (g)
L28	G3196	6	76
	G3822	11	67
L29	G1583	34	158
	G1589	3	9
	G1591	4	14
L31	G3510	3	50
	G3512	5	63
	G3514	1	8
	G3568	4	11
L33	G538/540	4	28
	G617	3	46
L34	G3198	3	11
	G3235	77	812
Total		**158**	**1353**

Table 4.5: Phase 5b pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L38	Farmstead	24	192	8
L39	Field/enclosure system	97	1035	11
L41	Additions to field/enclosure system L39	19	213	11
L42	Enclosure system	8	33	4
L43	Changes to southern field/ enclosure in L26	21	338	16
Total		**169**	**1811**	

MSW: mean sherd weight

Phase 5

Settlement features from Period 5 yielded 1389 sherds (13.1kg) from 988 vessels. Residual prehistoric, Roman and Anglo-Saxon material accounts for 9% of the assemblage, while intrusive medieval wares (310 sherds) account for 22%.

Modest pottery assemblages derived from a range of feature types – principally pits and boundary ditches – across ten land-use areas, the largest and least fragmented deposits being associated within fields/ enclosures L30 (Table 4.3). No pottery concentrations were noted, however, that would suggest particular foci of industrial or domestic activity. Study of the distribution of vessels with functional attributes (sooting, residues etc.) proved inconclusive.

Few vessels are represented by more than single sherds: the most complete example comprises 59 sherds (558g) from a St Neots-type jar, collected from the fill of L36 pit group G342 (Figure 4.11: P72). Most single vessels are represented by sherds weighing no more cumulatively than 100g. Mean sherd weights across land-use areas are closely comparable, ranging between 8g and 11g. Whilst St Neots-type wares were distributed across all land-use areas, Thetford-type and Stamford wares occurred only in settlement areas L28, L30, L32 and L33. The negligible quantities do not, however, permit any useful conclusions to be drawn.

Thirteen structures within five land-use areas yielded unremarkable pottery assemblages of mixed date (Table 4.4). All derive from the various disuse fills and are unrelated to the buildings' use. Most deposits weighed less than 100g, with the exception of structure G1583 (L29) and SFB G3235 (L34). The presence of a high proportion of early medieval wares in the upper fills of the latter suggests that the building may have been left open and gradually silted up over a lengthy period of time.

Phase 5b

A modest assemblage of 169 sherds (1.8kg) from 133 vessels derived from Phase 5b features, the majority associated with enclosure system L39 (Table 4.5) – in particular deposits peripheral to farmstead L38 (e.g. ditch G5161). Residuality observed in Phase 5a increases, with 47% of the assemblage comprising mainly early Anglo-Saxon and a small quantity of Roman material. Intrusive medieval wares (26 sherds) total 15%.

The late Anglo-Saxon assemblage (64 sherds) entirely comprises utilitarian St Neots-type wares, most of which are fragmentary and undiagnostic. The largest single sherd weighs 108g, and no vessels are represented by more than one sherd. Sooting on several sherds indicates use as cooking vessels, possibly deriving from the L38 longhouse. Fourteen sherds (79g) – eight of which are residual – derived from the disuse fills of this building (G5108); their presence within postholes associated with the longhouse's partition suggests abandonment of the structure during this period.

Other artefacts

The Other Artefacts assemblage shows a general pattern of continuity from the middle Anglo-Saxon to late Anglo-Saxon / Saxo-Norman periods. Textile production continued to be carried out: evidence for flax processing is limited to one fibre-processing spike from L24 (Phase 5a), but weaving is better represented by the remains of two loom weights and two pin beaters. This period witnessed the change from the warp-weighted loom, represented by the two bun-shaped loom weights from L34 (Phase 5) and L39 (Phase 5b), to the two-beam vertical loom, which is indicated

by the two single-ended pin beaters from L34 (Phase 5) and L24 (Phase 5a). This change in loom form is thought to have taken place in towns perhaps as early as the mid/late 9th to early 10th century (Walton Rogers 1997: 1755–61), but on rural sites perhaps in the later 10th and 11th centuries. Cloth cutting or tailoring is suggested by the shears from L24 (Phase 5a).

Other crafts practised include woodworking, suggested by the finds of an iron spoon bit (L31, Phase 5) and a chisel (L24, Phase 5a). Antler/bone-working is likely to have been undertaken on an *ad hoc* basis, as suggested by the modified sheep tibia recovered from L34 (Phase 5). With the exception of antler and bone combs, most items of skeletal material – including dress pins, pin beaters, a skate and buzz bones – were fairly simple to make.

Of the ten knives found within late Anglo-Saxon / Saxo-Norman deposits, seven could be assigned to blade forms. Angle-back blades were the most common, with two examples of form A1 (L30, Phase 5 and L24, Phase 5a) and one of form A2 (L39, Phase 5b). The period of use of form A1 spans the late Roman period into the 11th century, while that of form A2 does not appear prior to the late 8th or 9th century (Ottaway 1992: 564). The use of form C1 blades (one example: L39, Phase 5b) appears to span the mid-Saxon period into the 11th century (Ottaway 1992: 568–70), while the single knife with form D blade (L30, Phase 5) has a long history, in use from the Roman period and continuing throughout the medieval period. One example of a form E blade occurred (L24, Phase 5a); this form is not common, but appears to occur during the late Anglo-Saxon period (Ottaway 1992: 572) and throughout the Middle Ages. Pivoting knives, such as the single instance from L36 (Phase 5), are thought to be a distinctly pre-Conquest form (Ottaway 1992: 588). Although knives of blade forms A to E could have been used for a variety of activities, including dining, defence and crafts, pivoting knives are thought to have had a specialist purpose, such as wood-, bone- and leather-working, and perhaps use by scribes (Ottaway 1992: 587; Biddle and Brown 1990: 738–41).

The by-products of ironworking were consistently found at Stratton in deposits ranging from the early to late Anglo-Saxon period. The quantity of ferrous smithing slag increased considerably during Period 5 (7330.1g) as compared to Period 3 (80g) and Period 4 (3178.6g), but it remained at a craft, rather than industrial, level. The quantity of ferrous slag suggests that ironworking may have simply entailed carrying out seasonal repairs on iron implements. Smithing hearth bottoms were found in L28 and L33 (Phase 5) and L39 (Phase 5b). Although all the slag had been redeposited, so the locations of any smithies remain unknown, flake hammerscale found in association with the two hearth bottoms in L33 suggests that ironworking was carried out fairly close to rubbish pit G702.

Agricultural tools are scarce, with only a single weedhook found within L24 (Phase 5a). As noted in Period 4, Stratton is not alone in this pattern of under-representation of cultivation equipment during this period. Lava querns continue to dominate the quern assemblage: only four of the 44 instances of querns are not lava, and at least three of these are recycled quern fragments including Old Red Sandstone saddle querns and a bun-shaped Hertfordshire Puddingstone quern. In common with a number of sites of this period, for example Flixborough, Lincolnshire (Wastling 2009a: 248) and Stotfold, Bedfordshire (Albion Archaeology 2011), most lava querns comprise degraded and fragmentary pieces. There are, however, at least three querns which retain diagnostic traits such as rough tooling and a lip or collar round the feeder hole, indicative of an 8th-century or later date (King 1986: 95–9).

The trade patterns established in the middle Anglo-Saxon period appear to have continued into the late Anglo-Saxon / Saxo-Norman period, as represented by the continued presence of lava querns and Coal Measures whetstones (L26, Phase 5a and L30, Phase 5). A single instance of a Norwegian Ragstone whetstone (L24, Phase 5a) suggests that new trading links were being forged. Early examples of this imported stone occur in areas where there is thought to have been Scandinavian settlement or close trade contacts (Wastling 2009b: 237), and are generally a rarity on more westerly East Anglian rural settlements during the 9th to 11th century.

Although the working of bone to manufacture more basic items such as pin beaters and buzz bones was probably carried out within the settlement, the high standard of decoration on antler-handled comb OA345 from L41 (Phase 5b) suggests that this may have been purchased from outside of the community. The absence of any contemporary evidence for casting of copper alloy objects also indicates that the biconical-headed dress pin from L38 (Phase 5b), finger ring OA330 (L30, Phase 5), D-shaped spur buckle from L39 (Phase 5b) and strap mount OA293 (L24, Phase 5a) were all 'imported' to the settlement. The more complex pieces of ironwork, for instance the copper alloy-plated strap distributor OA198 (L34, Phase 5), are also likely to have originated from an external source. This ability to purchase traded goods implies that least some of the inhabitants had the financial ability and desire to purchase what were, in most cases, non-essential items.

The occurrence of spurs, a strap distributor and buckles, the latter probably used on spurs or harness, implies the riding of horses. Horses were considered a luxury rather than a primarily utilitarian animal, rendering

Table 4.6: Evidence for horse-riding in Period 5

Phase	Land-use area	G no.	Group description	Object type	Possible related residence
5	L34	3236	Fill of SFB G3235	Iron prick spurs (2 OA213–214); Iron D-shaped buckle	L28
5	L34	3798	Fill of pit group G3797	Iron rectangular buckle, strap guide and plate (OA267)	L28
5	L34	3799	Rubbish pit	Copper alloy-plated iron strap distributor (OA198)	L28
5	L37	3402	Upper fill of pit G3400	Iron D-shaped buckle	L28
5	L37	5101	Fill of fire/ash pit G5100	Iron 'fiddle key' shoeing nail	L38
5a	L24	5119	Final infilling of well G5115/5117/5313	Iron prick spur; Iron trapezoidal buckle; Iron buckle pins (3)	L38
4b	L23	5118	Infilling of well G5115/5117/5313	Tin-plated iron bridle boss (OA199); Iron strap guide	L38
5b	L39	5161	Enclosure system ditch	Copper alloy D-shaped buckle	L38
5b	L39	5162	Fill of enclosure system ditch G5161	Iron buckle pin	L38

Table 4.7: Residual and intrusive Other Artefacts in Period 5 (intrusive items in *italics*)

Phase	Land-use area	G no.	Group description	Object type
5	L28	3041	Fill of two intercutting pits	Old Red Sandstone saddle quern
5	L28	3224	Fill of pit group G3223	Old Red Sandstone (burnt)
5	L30	1995	Gravelled surface	Hertfordshire Puddingstone bun-shaped rotary quern
5	L32	1003	Infilling of Phase 4a well G1001	Roman prismatic bottle sherd
5	L32	2479	Spread of agricultural soil	*Rumbler bell;* Glass bottle base (OA63); Window glass; Lead pistol bullet
5a	L26	53	Fill of ditch G52	Pierced coin of Constans
5a	L26	3571	Fill of ditch G3570	Copper alloy Nauheim-derivative brooch (OA322); Copper alloy disc brooch (OA326); Copper alloy tweezers (OA348)
5a	L26	3100	Fill of ditch G3099	*Middle Eastern coin (AD1700–1800)*
5b	L41	5190	Fill of ditch G5189	*Olive-green glass body sherd (wine bottle / jar?)*
5b	L42	5029	Fill of ditch G5028	*Copper alloy strap mount (OA292)*

them an important indicator of wealth and prestige (Neville 2004: 2). Four land-use areas in Period 5 yielded contemporary horse-related items (Table 4.6), while horse-related finds from L23 in Phase 4b are probably related to those from L24 in Phase 5a: there is likely to have been some mixing of finds at the interface of the two deposits in question (G5118 and G5119 respectively).

Given the suggested status of the horse-owners, one would expect an equally high-status dwelling. Spatial analysis of the horse-related finds shows that there do appear to have been clusters in the vicinity of L28 (Period 5) and L38 (Phase 5b) – both land-use areas had at least one substantial building, suggesting that these two places are where the horse-owners lived.

Deposit G5119 also contained a fragment of spearhead; combined with a Jessop-type M6 arrowhead from the same deposit, this could suggest hunting, which is generally considered to have been an elite pastime (Loveluck 2007: 148). Other strategies for procuring wild food are poorly represented within the Other Artefact assemblage, being confined to a single fish-hook (OA234) from Phase 5b well G5269 (L39).

There are both residual and intrusive elements evident within the late Anglo-Saxon / Saxo-Norman deposits (Table 4.7). Some items, such as the saddle quern and bun-shaped rotary quern from L28 and L30 (Phase 5) are likely to have been recycled during construction of a hearth and a metalled surface, respectively. The late Iron Age and Romano-British finds, such as the Nauheim derivative brooch (L26, Phase 5a) and the body sherd from a prismatic bottle (L32, Phase 5), are likely to reflect the Anglo-Saxon penchant for collecting items of Roman date. This was certainly the case for the pierced coin of Constans found within enclosure system L26. The assemblage from L26 has a relatively high level of residuality, in particular from the fill of ditch G3570 which, in addition to the Nauheim derivative brooch, contained a disc brooch and tweezers thought to date to the 5th to 6th century.

The spread of agricultural soil in L32 (Phase 5) produced a consistently late medieval to post-medieval range of Other Artefacts. This might indicate that at least part of the deposit accumulated at a later date, although the intense activity that this area experienced during Periods 7 and 8 might have been responsible for a certain amount of cross-contamination.

Chapter 5.
Medieval settlement
(Period 6: *c.* AD 1150–1350)

Period 6 structural narrative

Stratton was at its height during Period 6, developing from a loose network of small farmsteads into a village that came to feature elements of two manorial complexes and had at least one well-metalled north–south road (Figure 5.1). Despite this, however, much of the land to the west of the road seems to have been unenclosed and to have had no-one actually living in it, being used instead for a range of probably agricultural or industrial activities. It is possible that the fields and house established to the west in Phase 5b were still in use, but domestic settlement otherwise lay primarily to the east of the road, much of it perhaps beyond the excavated areas. No trace remained of the long curvilinear ditches that were dug in Period 5, with a broadly rectilinear layout fully re-established. Larger smallholdings were apparent to the south, with one household seemingly controlling a network of small fields or work areas that covered almost a hectare. The extent of the manorial complexes is unclear: while the location of two dovecots in Period 7 suggests two foci of manorial activity, the only typologically manorial feature in Period 6 was the moat near the centre of the excavations.

Phase 6a

Only a small number of features can be assigned with confidence to the earlier part of Period 6, based primarily on stratigraphic evidence. These are limited to the northern enclosure system that was instigated in Phase 5b and was remodelled in the later stages of Period 6, as well as the fragmentary remains of further enclosure systems to the south, and two short-lived dwellings set within them (Figure 5.2).

L44

The ditches of L44 represent an intermediate stage between the disuse of the curvilinear boundaries in Phase 5b (L40) and the reimposition of a rectilinear enclosure system. This stage may have lasted for slightly longer in the southern half, where the curvilinear boundaries appear to have been a little more enduring, and where the course and alignment of the ditches in L44 more closely followed those of their predecessors (Figures 5.1 and 6.2), suggesting perhaps a greater continuity of population than to the north.

While the fragmentary remains of two enclosures survived on either side of the central spine of L44, G715 was the only building identified. Set within the corner of the most complete enclosure, the building is likely to have had a south-facing doorway, but the arrangement of its postholes is too irregular to identify doorposts conclusively or to interpret what internal divisions or structures the postholes within its eastern end may have signified. The cluster of postholes north-east of this building may have defined a small structure of indeterminate form, but the only other definite structure in L44 was fence G866. Few finds were recovered from L44 in general, but a particularly large deposit of charred grain was recovered from the backfill of building G715.

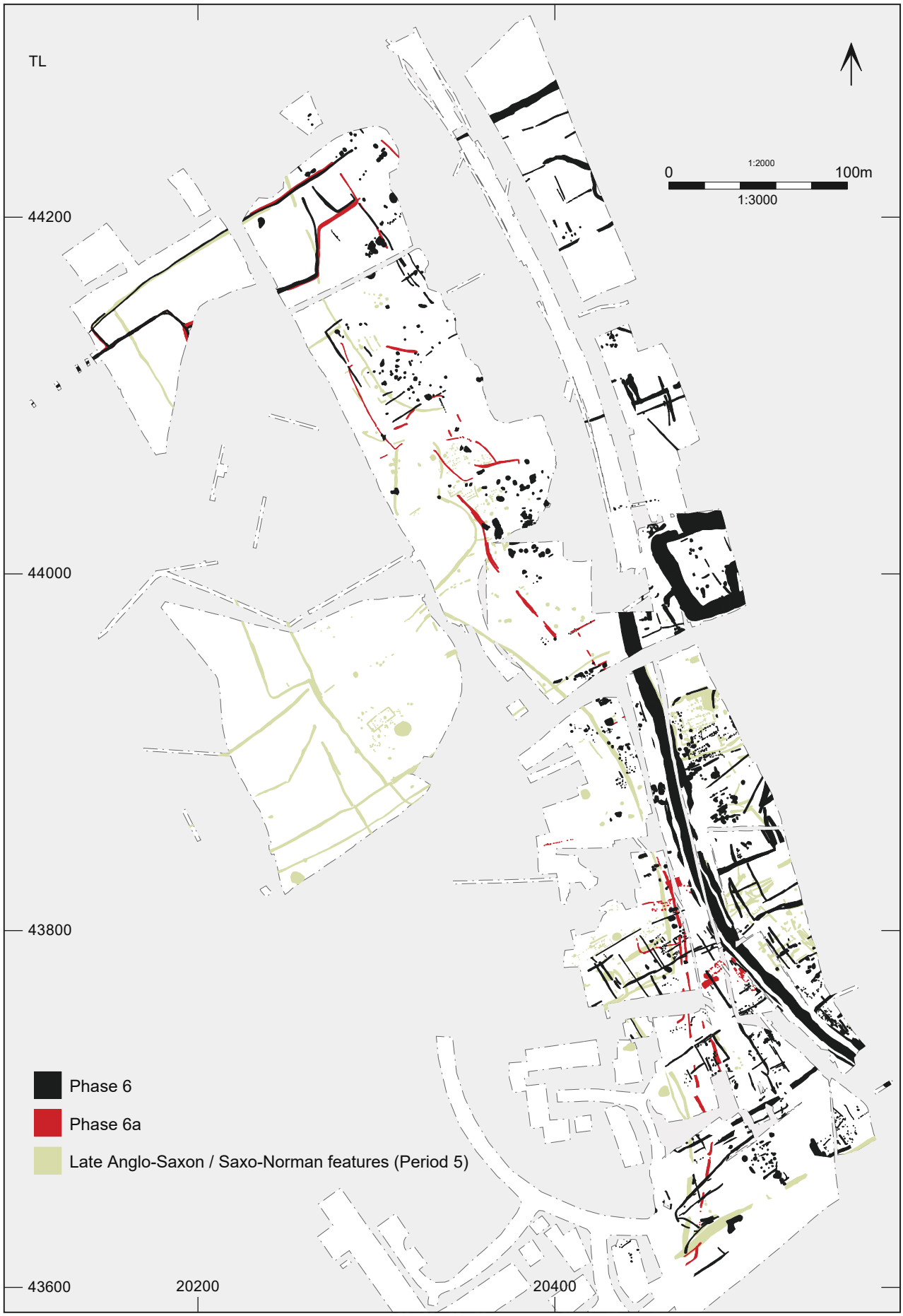
L45

Like those in L44, the ditches in L45 represent the fragmented remains of a set of enclosures (Figure 5.2) which fell chronologically between the disuse of curvilinear boundary ditches L40 in Phase 5b and the establishment of rectilinear enclosure system in Phase 6 (L51). They may have been used as livestock enclosures, or perhaps to demarcate areas of craft activity – the small finds assemblage includes numerous fragments of lava quern, while the use of posts to control an entrance near the centre of boundary G3806 suggests that it was for human traffic rather than livestock.

L46

The broad alignment established by ditches L42 in Phase 5b was retained by the enclosure(s) represented by L46, albeit with a less rectilinear layout. The ditches' layout survives only in fragmentary form (Figure 5.2), due largely to recutting by L48 in Phase 6. No internal features were conclusively identified with this phase of enclosure, and the paucity of finds from the ditches suggests that this area was primarily put to the pastoral use that can more easily be detected in L48.

Figure 5.1 (opposite page): Plan of all excavated remains from Period 6 (medieval) overlain on the Period 5 plan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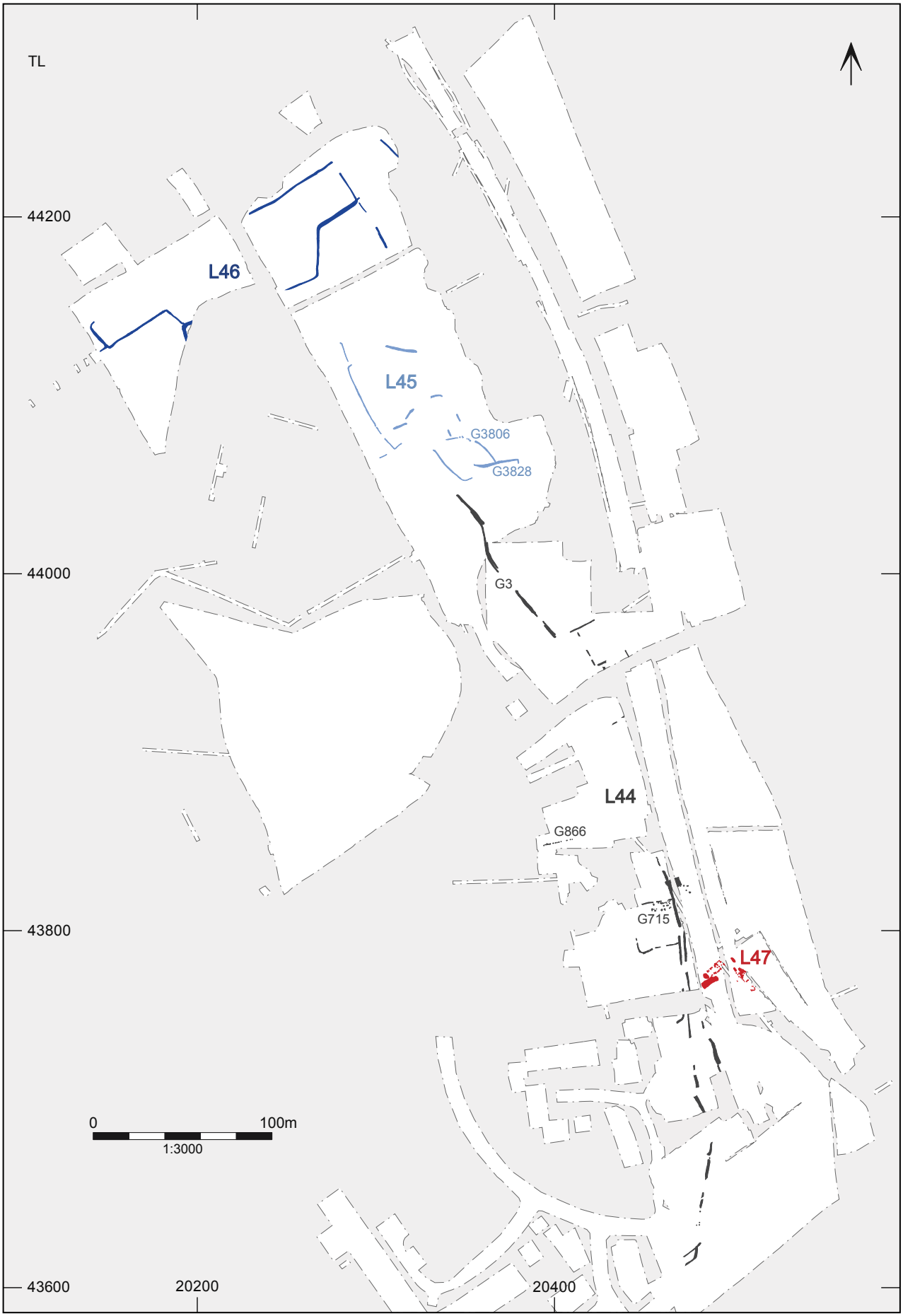
Phase 6
Phase 6a
Late Anglo-Saxon / Saxo-Norman features (Period 5)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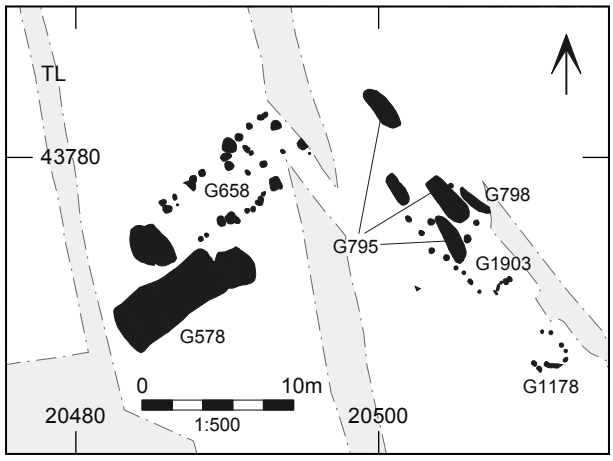


Figure 5.3: Close-up plan of land-use area L47

L47

Building G658 was the focus of the activity in L47 (Figure 5.3). It was divided into two rooms, whose unequal size perhaps indicates different functions, while evidence of repairs to the building's structure suggests that it was relatively long-lived. G1178 was a minor structure such as an animal pen, but G1903 may have been a subsidiary building to G658, although its form is unclear. The digging of four fairly large pits within the area that G1903 occupied clearly happened after the building had gone out of use, although the recovery of a moderate amount of pottery and charred grain from these suggests that the main building was still in use, with the occupants using the pits to dispose of rubbish. The pits may originally have been dug to quarry gravel: a much larger pit G578 to the west was clearly created for this purpose, although it was so close to building G658 it is unlikely that the building was still in use at this point.

Phase 6

L48

The ditches in L48 represent a reworking of enclosure system L46 that was established in Phase 6a (Figures 5.1 and 5.4). Although the enclosures were only revealed in part, their layout suggests that the enclosures retained a predominantly pastoral usage, a theory which is supported by the presence of water-pit G5775 within the main enclosure. The north-east end, however, contained a domestic or possibly industrial focus that is represented by the features in L49 – although the nearby presence of this activity did little to increase the quantity of finds recovered from L48. The layout of the south-west end is unclear, where a degree of recutting and remodelling is evident; it seems as though a wide droveway was created leading to the south-west, but interpretation of this part of the site is hindered by uncertain stratigraphic relationships and the ditches' extension beyond the excavated area. A second droveway at the opposite end of the enclosures appears to have led to the south-east, although the ditches defining it were heavily truncated.

L49

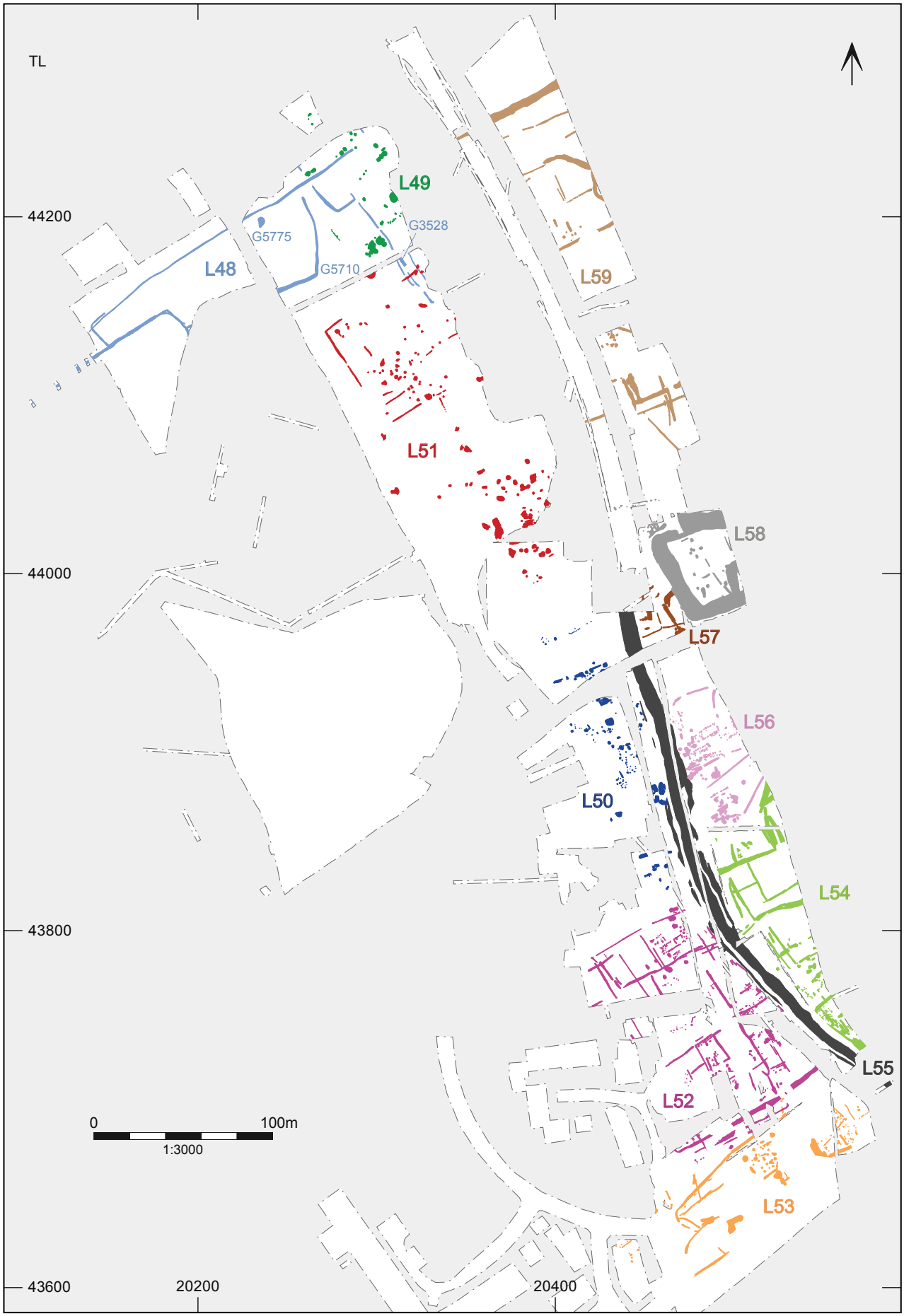
L49 represents a concentration of domestic or industrial activity within the eastern end of enclosure system L48 (Figure 5.5), although the relatively meagre finds assemblage and dearth of structural evidence make it difficult to characterise this activity. The small size of the finds assemblage recovered from these features, particularly in comparison with what was recovered from the settlement foci further south, suggests that the activity represented by L49 took place at some distance from the nearest area of habitation. Whatever this activity was, it appears to have demanded a plentiful supply of water: two water-pits (G5638 and G5663) were dug (Figure 5.6:b), along with well G5623 (Figure 5.6:a). The only clear evidence of a structure was G5671, which was either a fence or potentially one side of a building, although an unexcavated building may have existed near hearth G6020 at the very north of the excavated area.

L50

The extensive spread of activity represented by L50, on the western side of trackway L55, appears to have been situated within open fields (Figure 5.4) – the ditch system in L52 to the south did not extend this far north, and the features do not obviously adhere to any relict Anglo-Saxon enclosure system. The only sizeable building identified was G1515 (Figure 5.7); its southern end appears to have been partitioned in order to create two rooms, but the overall layout of the postholes that defined it suggests that it was a less substantial structure than those in L56, for example. Hearth G968 to the north of the building had three postholes associated with it, suggesting the presence of a superstructure, while G1517 to the south-east may have been an oven: large stones (including a millstone) had been set into the pit's clay lining, and a particularly large assemblage of charred grains was recovered from it. A barley grain from this deposit has been radiocarbon-dated to either

Figure 5.2 (opposite page): Overall plan of all excavated remains from Phase 6a

Figure 5.4 (next page): Overall plan of all excavated remains from Phase 6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20400
L49
G3528
G5775
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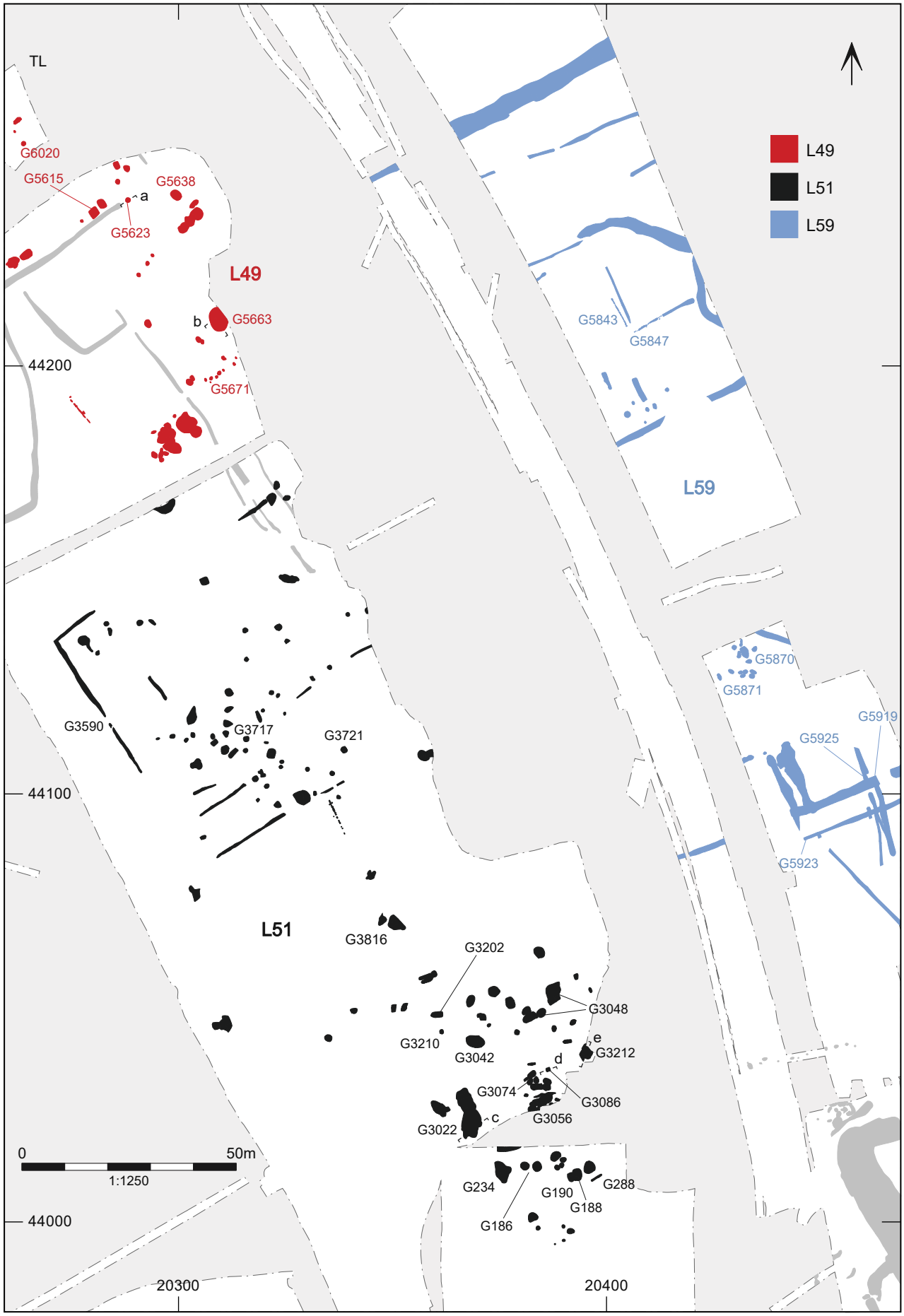
TL
L49
L51
L59
G6020
G5615
G5638
a
G5623
L49
b
G5663
G5671
44200
G5843
G5847
L59
G5870
G5871
G5919
G5925
G5923
G3590
G3717
G3721
44100
L51
G3816
G3202
G3048
G3210
G3042
e
G3212
d
G3074
G3086
G3022
c
G3056
0
50m
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G234
G190
G288
G188
G186
44000
20300
20400

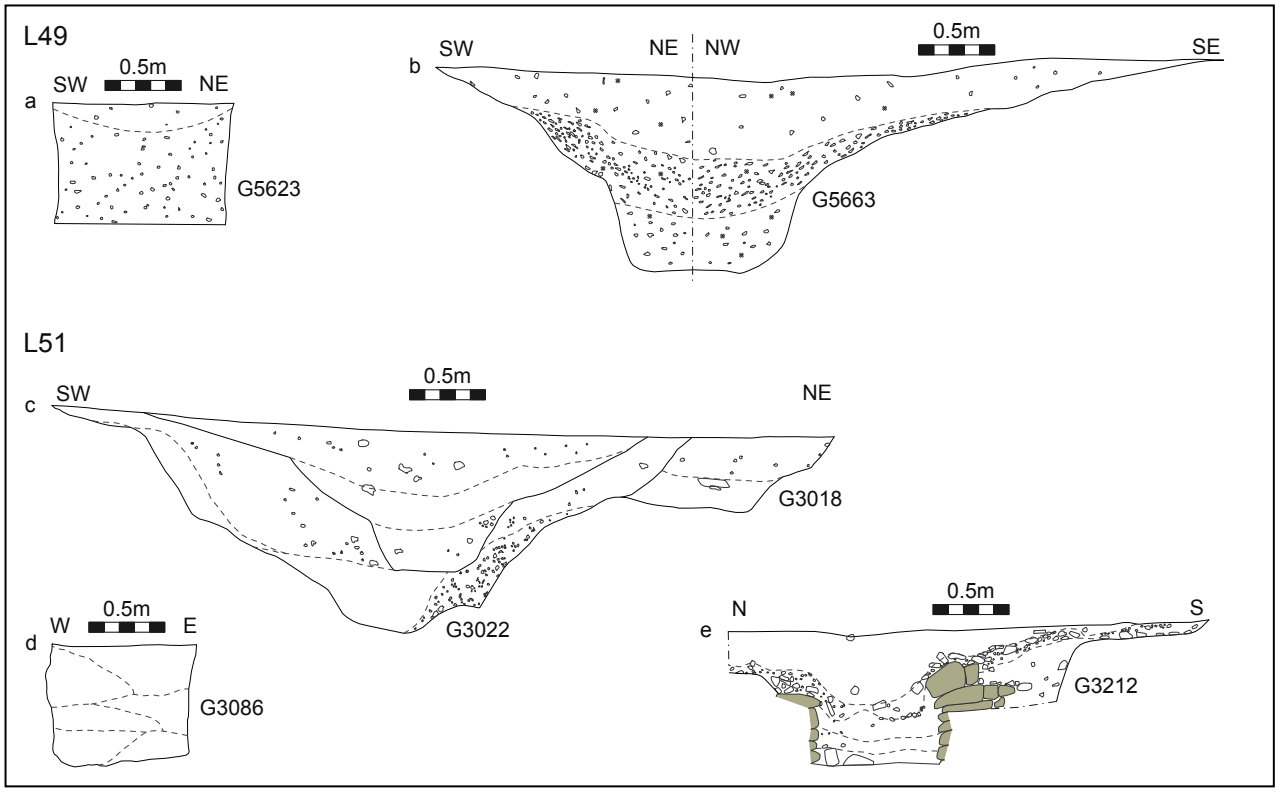


Figure 5.6: Selected section drawings from L49 and L51 features

cal. BC 1446–1515 or 1590–1620 (95% confidence, 391 ±20, OxA-38512); this suggests that the oven may in fact have been contemporary with later activity in this area, although the grain in question may simply be intrusive from a Period 7 ditch that cut through the pit. Fence G1543 immediately north-west of the building may have been associated with it, although the difference in alignment perhaps suggests otherwise.

Clusters of postholes to the south-west and north-west of building G1515 may have defined lesser structures such as sheds or animal pens, but the only other building conclusively identified was G120 to the north, with fence line G69 nearby to the east (Figure 5.8). The linear arrangement of the pits between G112 and G141 perhaps indicates that they were arranged along a property boundary, making G120 part of a different farmstead to G1515. It is unclear what sort of structure the postholes in G639 defined, but it may be significant that pits G669 and G696 nearby produced moderate quantities of pottery. Most of the other finds from L50 were concentrated in pits to the north of building G1515, with moderate amounts of pottery from G142, G928 and G951 and a particularly large chunk from G973. Fairly large quantities of animal bone were also recovered from pits G1505 and G1520, which is likely to represent domestic waste from the building.

Figure 5.5 (previous page): Close-up plan of land-use areas L49, L51 and L59, with other Phase 6 features in grey

L51

Despite the extensive nature of the activity represented by L51 (Figure 5.5), only one building was identified – G3202, which resembled an SFB in form, though an unusually late example of one if so. The lack of buildings may be explained to some extent by the continued use of those in L28 (Phase 5a), although much of the area was perhaps common land that was used for a mixture of industrial and agricultural purposes. The remnants of a large square or rectangular enclosure can be traced in the northern part of L51, whereas the southern part appears to have been open. Some of the short linear features within the enclosure might represent beam slots, indicative of further structural activity, but the only one whose profile was convincing as that of a beam slot was G288 to the south. The charcoal-rich fill of G288 suggests that the structure it represents burned down.

Most of the features in L51 were pits, though the precise function of these is largely unknown. G188, G234 and G3022 (Figure 5.6:c) were water-pits; the vertical-sided central shaft of G234 suggests that it started life

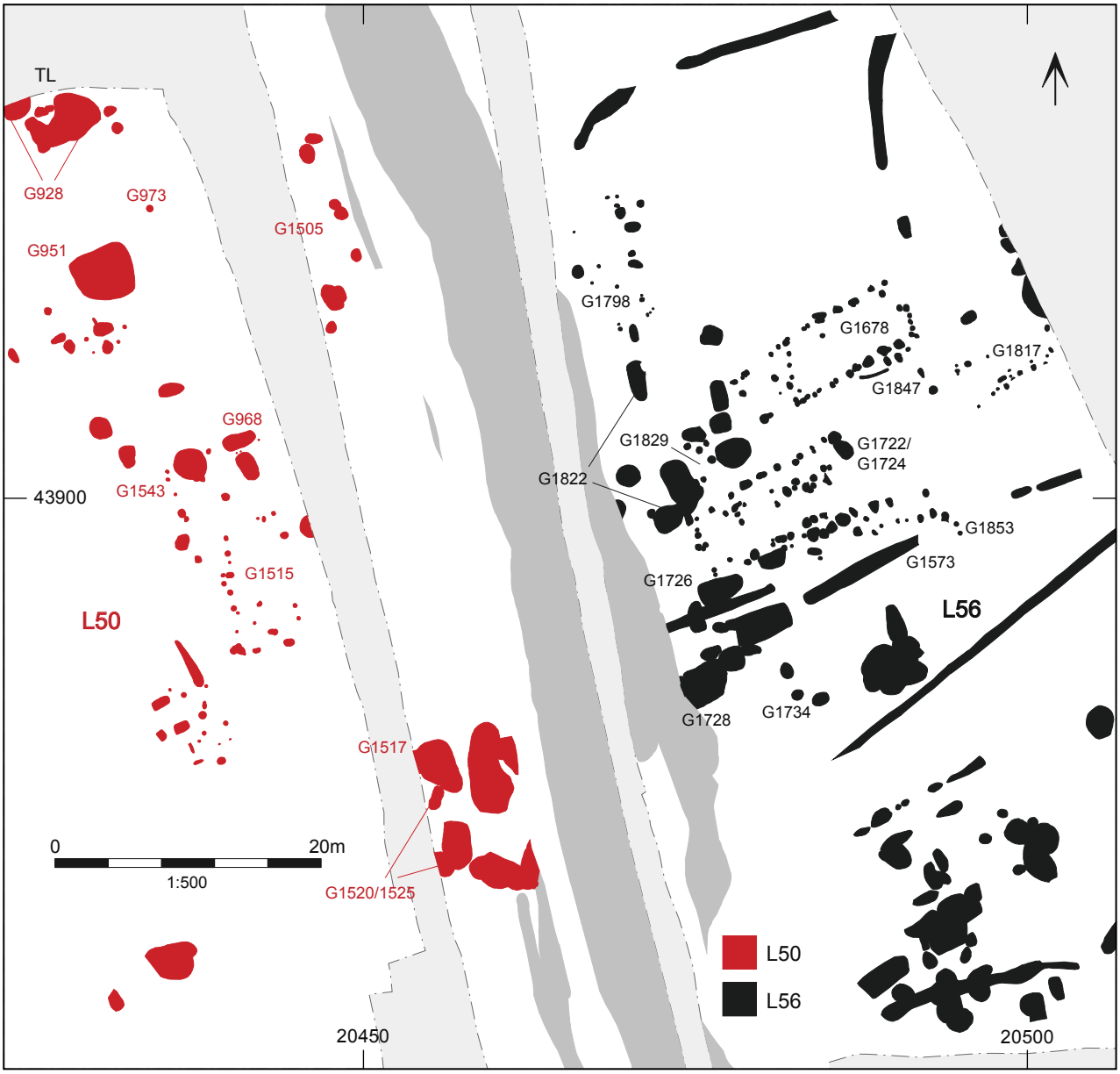


Figure 5.7: Close-up plan of land-use areas L50 and L56, with other Phase 6 features in grey

as a well, but its splayed edges point towards animals being allowed to drink at it. G3212 was conclusively a well, however, with a stone-lined shaft that was some 2.6m in diameter (Figure 5.6:e). The vertical sides of sub-square pit G3086 (Figure 5.6:d) suggest some form of specialised function: it may have been used for a specific type of industrial process, yet could equally have been a simple storage pit. Few of the other pits had sufficiently distinctive shapes or profiles to indicate their function, but a concentration of pits in the southern part of L51 were sufficiently irregular to mark them out as small gravel quarries, in particular G3048 and G3056. Trackway L57 is likely to have been the recipient of this gravel, although metalled surfaces may also have been constructed in association with the buildings to the south.

The distribution of finds within L51 tentatively supports the theory that the buildings in L28 continued to be used in Period 6, with a concentration of pottery and to a lesser extent animal bone recovered from the pits surrounding this area and immediately to the south. Quarry pits G3048 produced a particularly large amount of pottery, while the largest volumes of animal bone and charred grain came from pits at the southern end of L51. A smaller concentration of animal bone and pottery came from the pits within the enclosure to the north. The recovery of quern stones from 14 separate


TL
G328
G419
L58
a
b
G387
G361
G358
G378
G399/402
G357
G455
G439
L57
G270/348
G69
G224
G120
G89
G141
G112
G1885
L50
L54
L55
L56
L57
L58
0
40m
1:1000
44000
43900
20400
20500
G1750
G1764
G1767
G1931
G696
G629
G639
G669

pits across L51 further suggests the widespread use of this area for industrial activities such as processing grain; ferrous smithing waste was also recovered from across the area, although it was only present in a substantial quantity in pits G3717.

L52

L52 produced widespread evidence of settlement-related activity set within a rectilinear enclosure system (Figure 5.9), although the only substantial building was G544 within the northernmost enclosure: the other structures that can be identified are more likely to represent lesser features such as huts, fences and windbreaks. G544 was divided into two rooms, with the main entrance in the centre of the north-west side. Its south-west end appears to have been structurally problematic, with at least two episodes of repair or rebuilding evident; this suggests that the building was fairly long-lived, while the trouble taken to repair it also suggests that it was a sufficiently substantial building to warrant the effort. A smaller building G644/646 lay immediately to the north-west, almost contiguous with G544; while still one of the larger structures within L52, its layout was much less regular than that of G544 and it is likely to have been an outbuilding.

The only other structure with four clearly defined sides was G1150, a single-roomed building that was set within its own enclosure or sub-enclosure. G1189 and G1259 may have been small huts or sheds, but several of the other structures such as G576 and G718 were represented by just two lines of postholes forming a right angle. The way in which these functioned is unclear: they may have formed windbreaks around an area of craft activity, or ones such as G576 might have combined with the adjacent ditch to form a small animal pen. More enigmatic still are the lines of three or four postholes dotted around L52 – were they merely less substantial windbreaks? The two parallel lines of posts in G563/564 give the impression of forming something more substantial, but truncation by a large later ditch means that it is unknown whether the two lines continued to the north-west, or even whether they were joined by a perpendicular row. Longer lines of postholes, in particular G1110 and G6021, indicate that fences were used as well as ditches to mark boundaries within L52, while stake-holes in the base of gullies such as G605 indicate that some of these also held fences.

Although there is evidence of activity throughout the enclosures in L52, much of it was focused around the northernmost enclosure that contained building G544. Three of the five wells or water-pits in L52 (G587, G595 and G598; Figure 5.9:a and b) were located within the enclosure, and G551 and G590 lay just outside it. Most of the concentrations of pottery, ferrous smithing slag and vitrified clay lining from L52 were also centred around this enclosure. The quantities of slag and clay lining are too small to suggest that the building was a smithy – G544 is more likely to have been a domestic dwelling, although its inhabitants may have been involved with smithing nearby. The main other concentration of finds came from the vicinity of pit G1228, which produced more than 2.7kg of fuel ash slag; a moderate amount of pottery was recovered from ditch G1069, while pit G1232 contained more than 6kg of animal bone. Few finds came from the central part of L52; this area appears to have contained larger enclosures or fields, but understanding of its overall plan is hindered by its incomplete excavation. It may be significant that several large deposits of charred grain were found around the outskirts of L52, in particular from ditches G1006 and G1302. Only four quern stones were found, however, three in close proximity to building G544 – the burnt grain from the enclosure ditches was perhaps undergoing the early stages of crop-processing near where it had been grown, before being taken to the nearest domestic area for final processing and consumption.

It is unclear whether the individual enclosures in L52 represent separate landholdings or merely divisions of a single larger property, but the dominance of building L544 and its associated water-pits and finds assemblages suggests the latter. If so, it is likely that the enclosures were assigned different functions, with a mixture of arable, pastoral and industrial activity taking place, but the excavated evidence is insufficient to determine precisely how each individual enclosure was used.

L53

While interpretation of L53 has been somewhat hindered by extensive post-medieval quarrying and truncation by later medieval features, the remains appear to represent a single farmstead centred around L-shaped building G2570 (Figure 5.10). The lack of evidence for modifications or repairs suggests that G2570 is unlikely to have been long-lived, meaning that the number of postholes and beam slots around the building may not have been contemporary with it. The two parallel lines of postholes represented by G2591, however, match the alignment of G2570 and may have related to an outbuilding; a possible surface (G2593) was recorded between them, with a less substantial feature (G2599) such as a windbreak immediately to the south. No other buildings were conclusively identified, although the stony surface represented by G1434 may have formed

Figure 5.8 (opposite page): Close-up plan of land-use areas L50 and L54–58, with other Phase 6 features in grey


TL
G590
G718
G595
G587
a
G644/
G646
G605
43800
G544
b
G598
G647
G551
G563/564
G576
G1187
G1189
G1069
G1069
G1110
G1006
G6021
G1259
G1088
G1228
G1232
G1150
G1348
L52
43700
G1302
0
40m
1:800
20500
a
S
0.5m
N
G587
b
NE
0.5m
SW
G598

the foundation for one; clusters of postholes were recorded on either side of fence G2520/2793/2812, but no obvious pattern was apparent.

The ditches at the south-west end of L53 appear to have been designed for controlling livestock – G1383 seems to have formed a holding pen, with possibly gated exits to the south-west, while ditch G1367/1379 subdivided the enclosure to form a 'race' that would have allowed animals passing along it to be closely inspected. A focus on animal husbandry rather than domestic activity within this area might explain the relative lack of finds recovered from L53: only the short length of ditch represented by G2427 produced a large pottery assemblage. Ditch G1383 and pit G1444 did, however, produce significant quantities of charred grain; in the absence of any quern stones from L53, this might indicate the presence of arable cultivation alongside pastoral activity.

L54

The remains in L54 represent a development of the Phase 5 enclosures in L30. They comprised a series of small enclosures or fields hanging off the eastern side of trackway L55 (Figures 5.8 and 5.10), which appear to have had a primarily agricultural use. No buildings were identified that might have formed part of a farmstead, although the clusters of postholes on either side of fence G2633 may have formed one or more minor structures, and the northern half of L54 in particular contained few other features such as pits that would be indicative of domestic activity. Most of the pottery that was recovered came from the southern half of the area, in particular from pits G2139 and G2881, while ditches G1764 and G2604 at the opposite ends of L54 produced the largest amounts of animal bone. L54 may have been part of a large farm such as L52, with the enclosures used for a range of agricultural activities and the main domestic area lying further east.

Although there was a lack of clearly domestic structures, there is tantalising evidence of a building at the southern end of L54. The arrangement of postholes is by no means conclusive, and it was partially obscured by later features, but there is a hint of a building (G2277) with an apsidal end and a porch on its southern side, with overall internal dimensions of roughly 10m × 4.5m. The date is also uncertain, with a lack of conclusive stratigraphic or artefactual evidence. Documentary sources (cf. pages 10–11) refer to St Mary's Chapel, which was built in the 13th century and remained in use until at least the 1570s, with an adjacent cottage; it seems unlikely that this was the building in question, but the possibility cannot be entirely discounted.

L55

Trackway L55 was one of the main roads associated with the medieval village of Stratton (Figure 5.4), with historical maps indicating that it continued northwards beyond where it was recorded within the excavated areas. Drainage ditches were present on both sides, with signs of recutting, while wheel ruts were periodically evident in the bottom of the hollow-way. No evidence was found of links with the neighbouring farmsteads such as L52 or L56, but this may have been masked by recutting during Period 7.

With the exception of a large amount of animal bone from ditch G1750, which is likely to have derived from the neighbouring activity in L56 (Figure 5.8), relatively few finds were recovered from the trackway. The hollow-way G1885 did, however, produce a moderate assemblage of non-ceramic items; several of these are likely to have been lost by people or animals passing along the trackway, such as the four horseshoes, the stirrup terminal and the livery button.

L56

Farmstead L56 represents a remodelling of the one established in Phase 5 (L29), with its alignment rotated slightly anticlockwise. There was no spatial overlap between the buildings in L29 and L56, and the later ones are likely to have been constructed while the earlier ones were still partly standing, and perhaps even still in use.

Building G1678 was slightly smaller than its Phase 5 predecessor G1583, and had a simpler internal layout (Figure 5.7). Most of the building seems to have been a single room: its south-west end may have been partitioned, but the function of the spread of postholes in this area is unclear. Building G1722 had a clearer division into two rooms, but it is less clear whether the postholes in G1724 represent a new building in place of the old one, or a combination of internal and external support to G1722. A third, less substantial building might be represented by G1817, although this may just have been two fence lines, while the adjacent structure G1847 perhaps formed an animal pen attached to building G1678. A more definite fence G1853 was constructed next to building G1722. Postholes G1798 had no distinguishable structural form; some may have formed insubstantial structures such as windbreaks, yet they may simply have held a collection of post for tethering animals.

Figure 5.9 (opposite page): Close-up plan of land-use area L52, with section drawings; other Phase 6 features in grey


TL
43800
43700
43600
20500
L52
L53
L54
L55
G1931
G2881
G2139
G2277
G2633
G2604/
G2608
G1885
G2427
G2812
G2793
G2520
G2591
G1367
G2570
G2599
G2599
G1444
G1379
G1383
G1434
G1421
0
40m
1:1000

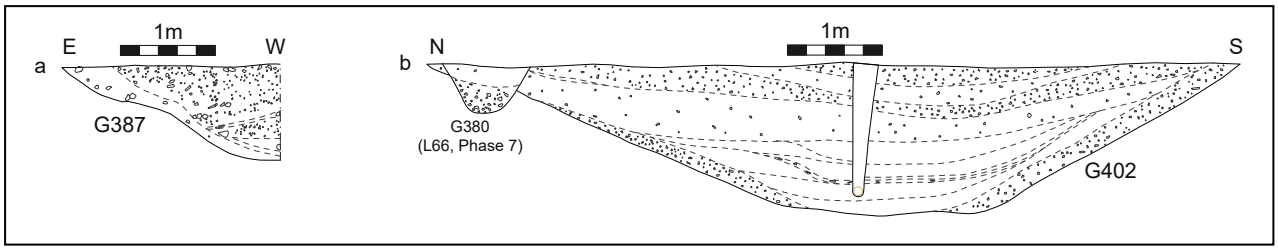


Figure 5.11: Selected section drawings from L58 features

Despite the presence of at least two substantial buildings and a proliferation of pits, the finds assemblage recovered from L56 is fairly small – the only significant concentration of pottery came from pits G1726, G1728 and G1734 to the south of the two buildings, while few non-ceramic artefacts or charred plant remains were found. The faunal assemblage from L56 is also small, although ditch G1750 that formed part of trackway L55 did produce a large amount of animal bone. The purpose of the pits in L56 is therefore unclear: with the disposal of rubbish apparently a secondary function, and with many of the pits too shallow or irregularly shaped to suggest that they were designed primarily for storage, it seems likely that a significant number were quarry pits for extracting gravel to use either in trackway L55 or for creating metalled surfaces around the buildings, the patchy remains of which were sporadically present. The gullies on either side of the main area of pits at the southern edge of L56 perhaps defined a specific area that had been set aside for quarrying.

5.1.2.10 L57

L57 covers the small area of activity that was sandwiched between trackway L55 and moat L58 (Figure 5.8). No structural remains were identified, but there were several patches of metalled surface – they may have been the remnants of a much more extensive surface, but it is perhaps more likely that they were consolidated areas for carrying out craft activities. Large amounts of charred grain were recovered from pit G455 and from G348, which may have been a very long pit rather than a ditch. The former deposit at least is likely to represent a rubbish dump rather than grain that was accidentally burnt where it was being stored, since the pit's contents also included a large amount of pottery. Some of the other pits in L57 may well have been for storage, however, in particular the largest in G439: this had steep sides and a flat base and measured more than 5m long and 0.7m deep, making it capable of storing a substantial amount of material. If L57 was generally an area for storage and carrying out craft activities, then it may well have had a direct association with moat L58.

5.1.2.11 L58

Moated enclosure L58 lay only partly within the excavated area (Figure 5.8): crop-marks indicate that just over half of it was revealed during excavation, with the overall moat being sub-rectangular in plan. The ditch defining it (G402) was mostly *c.* 9m wide and up to 1.6m deep (Figure 5.11:b), and enclosed an area that was up to 40m wide. Its longevity is attested by several episodes of cleaning-out, particularly on its southern side, and the moat remained in use during Phase 7 (L66). No buildings were identified, although redeposited mortar was recovered from pit G358 and postholes G378; a few postholes were present, including G378 which had been lined with pieces of tile, but no discernible pattern to them could be detected. If the moat once surrounded a large house, it must therefore be assumed that this lay beyond the excavated area: a building sufficiently substantial to merit being surrounded by a moat would surely have left visible signs of its foundations. Any such building within the moat may have lain within the area defined by ditch G387, itself *c.* 6m wide and 1.1m deep (Figure 5.11:a) – this perhaps acted as a moat within a moat, enclosing an area that was *c.* 10m wide.

The design of the moat's north-west entrance seems to have been modified over time: the aperture appears to have broadened from 3m to 10.5m following episodes of partial recutting, although it may simply have shifted west of its original position. It is unclear how the excavated part of the enclosure was used; the presence of gullies suggests that it was subdivided – assuming that they were in fact contemporary with the moat – but the generally small assemblage of finds recovered from L58 offers little insight into whether this area had an arable, pastoral, industrial or even recreational function. Surprisingly little pottery was recovered from the moat itself, although it produced a fairly large amount of animal bone, while the only large volume of charred grain came from one of the pits in G361.

Figure 5.10 (opposite page): Close-up plan of land-use area L52–55, with other Phase 6 features in grey

A focus of activity took place immediately outside the entrance, with a cluster of pits and/or postholes, but the function of these is similarly elusive. There is a suggestion, however, that they represent an industrial area: a significant amount of ferrous smithing slag was recovered from the postholes of fence G328 to the north.

5.1.2.12 L59

L59 represents a poorly understood series of enclosures in the north-east part of the excavated area (Figure 5.5). The northern boundary seems to have been quite a significant marker, as shown by at least two episodes of recutting, whereas the rest of the area may have been more fluid in its layout, with changes certainly evident at the southern end. Ditches G5919 and G5923 seem to have formed a trackway or droveway, cutting across the earlier north–south ditches in this area, but interpretation of the remaining features in L59 is hindered by the relative narrowness of the excavated area in which they were recorded. No buildings were present, and L-shaped fence G5843/5847 was the only lesser structure identified; a focus of human activity is suggested in the southern part of L59 by pit cluster G5870/5871 and a concentration of pottery focused on ditches G5919 and G5925, but the northern area produced few finds and is likely to have been distant from any domestic or industrial activity. One point of interest is the discontinuity between the layout of L59 and that of L49 and L51 to the west, confirming that the northward continuation of trackway L55 beyond where it was recorded within the excavated area had been established by the time these enclosures were set out.

Artefacts

Pottery

Phase 6a

Phase 6a features yielded 330 sherds (3.2kg) from 258 pottery vessels (Table 5.1). The land-use areas mainly represent the reconfiguration or final alteration of boundary and enclosure systems first established in Phases 5a and 5b, which accounts for the high proportion of residual late Anglo-Saxon material (62%) within the Phase 6a assemblage.

Medieval pottery comprises a modest collection of 76 sherds (1.1kg) from 68 vessels. The assemblage is dominated by sand-tempered coarse wares, predominantly of 12th–13th-century date, and a small number of contemporary shelly wares. High-medieval wares are represented by two glazed Brill/Boarstall sherds. The assemblage is largely undiagnostic, although a small number of jars, jugs and a single bowl occur.

Table 5.1: Phase 6a pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L44	Series of enclosures	160	1626	10
L45	Enclosure system	63	561	9
L46	Field/enclosure system	24	240	10
L47	Farmstead	83	755	9
Total		**330**	**3182**	

MSW: mean sherd weight

Some 64% of the pottery was collected from ditches, 22% from pits, and the remainder from postholes and structural slots. The majority derived from enclosure L44, principally the disuse of building G715, which yielded a deposit weighing 583g, including four sherds (540g) from an undiagnostic type C61 vessel.

Phase 6

Phase 6 witnessed the emergence of a village, with farmsteads, manorial centres and a trackway aligned north–south. Associated features yielded an assemblage of 4555 sherds (47.9kg) from 3209 vessels. Residual prehistoric and Roman wares total 2% of the assemblage, and Anglo-Saxon / Saxo-Norman material 38%, while intrusive later medieval wares constitute 3%.

The composition and condition of the assemblages from each land-use area are comparable, with mean sherd weights ranging between 9g and 14g. Little variation was observed between lower, use-related fills and upper fills of features, although the latter generally contained larger quantities of pottery. Some distinction is apparent between different features in terms of the quantity of pottery present, suggesting a variety of formation processes at work. Approximately 60% of the assemblage derives from pits (including storage, rubbish and quarry types), and 21% from ditches. Wells and structural features each yielded approximately 8%, and negligible quantities derived from other feature types (Table 5.2). A proportion of the material is likely to have occurred in or near its primary context, close to areas where the pottery was used: 175 medieval vessels (from a total of 874) are represented by more than single sherds. The overall distribution of ceramics shows the largest concentration to be associated with settlement-related activity in L51 (Table 5.3).

Table 5.2: Phase 6 pottery quantification by feature type

Feature type	No. sherds	% Sherd	Wt (g)	% Wt
Ditch	980	21.5	11,029	23.0
Ploughsoil	2	0.1	41	0.1
External dump	84	1.8	891	1.8
External surface	18	0.4	237	0.5
Furrow	1	0.1	8	0.1
Hearth / oven	18	0.4	130	0.3
Layer	7	0.2	37	0.1
Occupation debris	8	0.2	31	0.1
Pit (non-specific)	1903	41.7	20,893	43.5
Pit (quarry)	184	4.0	1343	2.8
Pit (rubbish)	605	13.3	6486	13.5
Structural cut	401	8.7	3747	7.8
Well	338	7.4	2954	6.2
Tree-throw	6	0.2	80	0.2
Total	**4555**	**100**	**47,907**	**100**

Table 5.3: Phase 6 pottery quantification by land-use area

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L48	Field/enclosure system	88	748	9
L49	Settlement-related activity area	129	1318	10
L50	Settlement-related activity area	600	6764	11
L51	Dispersed area of partially enclosed settlement-related activity	1098	11,429	10
L52	Large enclosed farmstead	703	5707	8
L53	Enclosed farmstead	254	2702	11
L54	Field/enclosure system	518	7352	14
L55	Trackway	113	1372	12
L56	Farmstead	650	6145	9
L57	Settlement-related activity area	118	1377	12
L58	Moated enclosure	75	758	10
L59	Field/enclosure system	209	2235	11
Total		**4555**	**47,907**	

MSW: mean sherd weight

Enclosures

Pottery was recovered from enclosure systems L48, L54 and L59, and moated enclosure L58. Within each, sand-tempered coarse wares dominate, supplemented by a small number of glazed fine wares from regional sources. Functional attributes, mainly represented by sooting, indicate that similar domestic activities were occurring either within or in the vicinity of each enclosure.

L48 represents a reconfiguration of Phase 6a enclosure L46, and contained a similar range of wares to its predecessor. None of the features yielded substantial assemblages: the largest, from L48 furrow G3528, weighs only 210g. The condition and fragmented nature of the pottery suggests processes of natural accumulation and silting.

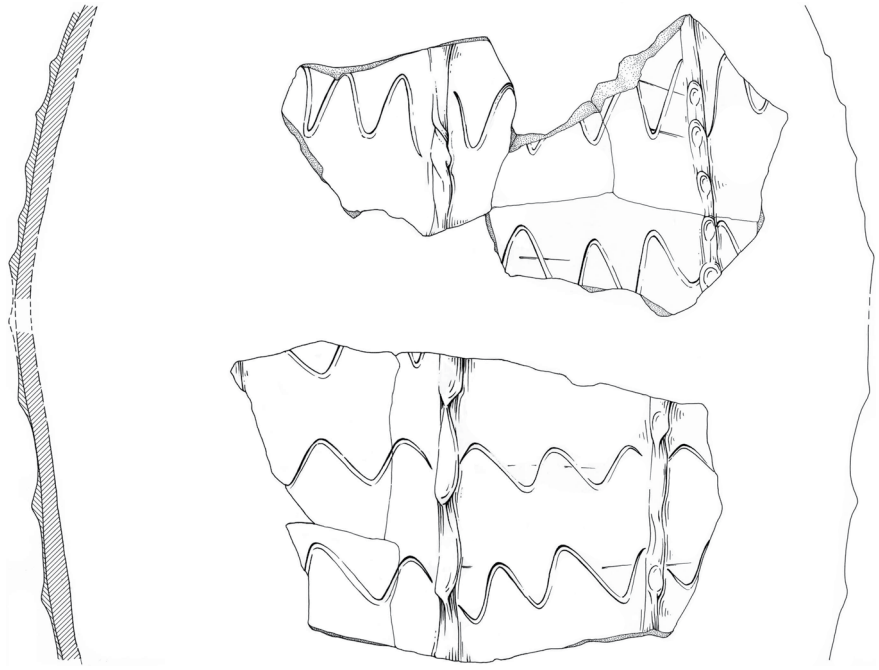
In contrast, the assemblages collected from enclosure system L54 – a reconfiguration of the Phase 5 enclosures L30 – yielded larger assemblages, particularly from the upper fills of pits G2881 (1.4kg) and rubbish pit G2139 (1.1kg). In addition to the standard range of sandy coarse wares and Brill/Boarstall types, sherds from Potterspury (C10), Stamford (C12A) and Hedingham, Essex (C17) occur in small quantities.

The L59 assemblage contains a quantity of residual late Anglo-Saxon and Roman pottery, the latter including a modified grey-ware beaker base (Table A5.27). The largest deposit of medieval pottery derived from ditch G5925, which contained eight sherds (566g) from a type C61 jug with a comb-impressed strap handle (Figure 5.12: P410). All other features yielded assemblages weighing less than 100g. Sandy coarse wares are prevalent, with fine wares poorly represented by single sherds of Brill/Boarstall ware and a Hedingham-ware jug, the latter with stamped decoration (Figure 5.12: P411).

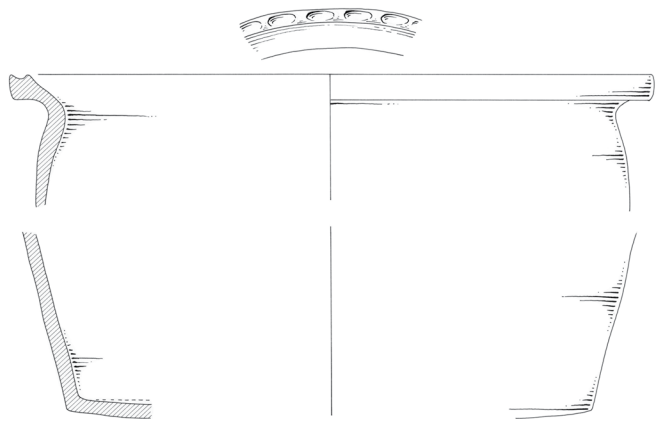
Moated enclosure L58 yielded a small and largely undiagnostic assemblage from 64 vessels (758g), each weighing less than 70g. Sandy coarse wares are dominant, as with the other enclosures, supplemented by two glazed fine-ware jugs. The paucity of the assemblage may perhaps be explained by the location of part of the moat beyond the limit of excavation, or it could relate to function. Non-ceramic artefacts were also poorly represented from the enclosure (Table A5.26).

Farmsteads

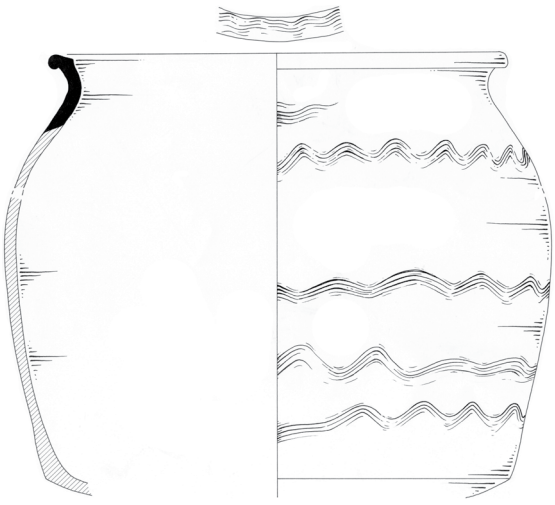
Pottery recovered from farmsteads L52, L53 and L56 survives in modest condition, and is fairly fragmented. Functional attributes, mainly represented by sooting on cooking vessels, unsurprisingly indicate that similar domestic activities were occurring at each farmstead.



P331

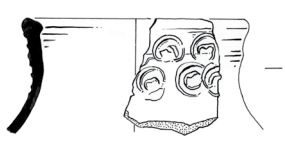


P369 / P372



P352

50mm



P411

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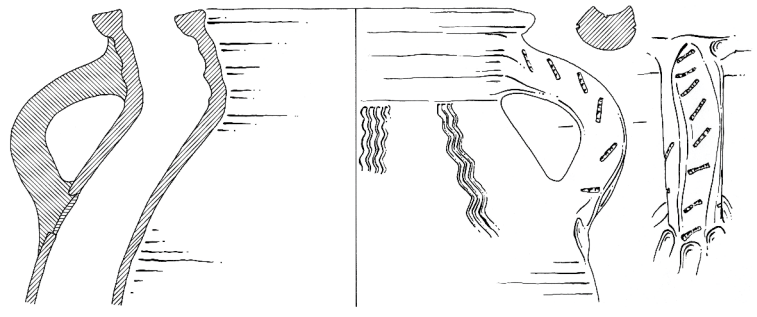

P410

L56, a remodelling of Phase 5 farmstead L29, yielded the largest assemblage (6.1kg), the most sizeable deposit (1.1kg) representing the dumping of occupation debris (G1736) into pits G1734, including 14 sherds (357g) from a Lyveden jar (Figure 5.12: P369/372). The disuse fills of postholes in buildings G1678 and G1722 respectively yielded assemblages weighing 185g and 355g, mainly comprising late Anglo-Saxon St Neots-type wares. A similarly large assemblage from farmstead L52 also displayed significant concentrations, suggesting episodes of deliberate disposal/dumping of material, particularly with regard to the infilling of well G590 and the repair of metalled surface G600. In contrast, a fairly uninformative assemblage occurred within farmstead L53. Nearly half of this (1.3kg) came from the upper fill of ditch G2427, and may represent occupation debris from nearby farmstead L52.

Trackway

The infilling and disuse fills of the boundary/drainage ditches that flanked trackway L55 yielded a modest pottery assemblage, weighing 1.4kg. The largest deposit (571g) derived from the upper fills of ditch G1750, and is likely to represent occupation debris from nearby farmstead L56. There is little residuality within the assemblage, with most sherds dating to the early or high medieval periods. All single vessels weigh less than 150g; the highly fragmented nature of the pottery is demonstrated by a low vessel to sherd ratio of 1:1. No pottery was collected from either the road surface or its associated cart ruts, contrasting with the fairly numerous assemblage of non-ceramic artefacts, which represent casual losses along the trackway (Table A5.24).

Settlement-related activity foci

Approximately 37% of the Phase 6 assemblage was associated with settlement-related activity foci L50 and L51, both located to the west of trackway L55. Much smaller assemblages were recovered from L49 and L57, but these two activity foci were less extensive. Little variation was observed between the composition of the assemblages from L50 and L51: both were dominated by sandy coarse-ware jars and smaller quantities of jugs and bowls. Comparable functional attributes (mainly sooting/residues) suggest that the pottery represents accumulations of domestic waste.

Features assigned to L50 yielded 600 sherds (6.8kg), of which 46% are residual, probably deriving from late Anglo-Saxon deposits within the same area. In common with preceding phases, little pottery was associated with buildings and structures. The infilling and disuse of buildings G120 and G1515 yielded a total of just three St Neots-type sherds (18g), while two medieval sherds (10g) derived from structure G639. The majority of the pottery was concentrated in features to the north of building G1515, with assemblages weighing over 500g occurring in storage/rubbish pits G951, G696, G629 and G973. The last of these contained 28 sherds (1.9kg) from a type C02 jar (Figure 5.12: P331). No cross-joins occurred, suggesting that the features may have been slowly filled over a period of time.

A sizeable assemblage totalling 1098 sherds (11.4kg) derived from L51. The mixed nature of the assemblage, in particular the high incidence of residual late Anglo-Saxon pottery (47%), may support the theory that the buildings established in L28 (Phase 5a) continued to be used in Phase 6. A small assemblage of 18 sherds (240g) derived from the disuse fill of SFB G3202, including 13 sherds (199g) from a type C67 jar. The fills of pits of various functions accounted for 92% of the assemblage (by sherd count). Where multiple fills occurred, most sherds derived from secondary and tertiary deposits. Although the assemblage is fairly fragmented (mean sherd weight 10g), a proportion of vessels are represented by more than single sherds (vessel to sherd ratio 1:4), suggesting that much of the material occurred in or near its primary context, close to areas where the pottery was used.

Pottery distribution was concentrated in pits surrounding the L28 buildings, and immediately to the south. The largest assemblage (2.9kg), which derived from quarry pits G3048, includes 30 sherds (862g) from a type C61 jar. The primary and secondary pit fills yielded 59 sherds (960g) from the same Hertfordshire-type grey-ware jar, suggesting rapid infilling of the feature with material derived from a single source. Quarry pit G3816 yielded 144 sherds, weighing 1.1kg, although only 14 are datable to the medieval period.

None of the features in L49, which lay immediately north of L51, yielded a substantial assemblage: the largest (204g) came from pit G5615. The activity focus lay in the eastern part of enclosure system L48 and contained a similar range of wares. The condition and fragmented nature of the pottery suggests processes of natural accumulation and silting.

An assemblage of 118 sherds (1.3kg) was collected from activity area L57. The majority (653g) was associated with the infilling of pit G455, whose assemblage mainly comprises vessels in sandy fabric type C71, including 35 sherds (501g) from a single jar (Figure 5.12: P352). This material may represent an accumulation of rubbish from nearby moated enclosure L58.

Figure 5.12 (opposite page): Selected pottery drawings from Period 6 features. Scale 1:4

Table 5.4: Phase 6 CBM quantification by land-use area

Land-use area	Description	No.	Wt (g)
L48	Field/enclosure system	1	203
L49	Settlement-related activity area	6	363
L50	Settlement-related activity area	12	1483
L51	Dispersed area of partially enclosed settlement-related activity	29	3650
L52	Large enclosed farmstead	11	1884
L53	Enclosed farmstead	225	10,517
L54	Field/enclosure system	87	9889
L55	Trackway	12	851
L56	Farmstead	13	503
L57	Settlement-related activity area	24	2144
L58	Moated enclosure	258	34,553
L59	Field/enclosure system	15	661
Total		**693**	**66,701**

Ceramic building material

Phase 6a

A small assemblage (5.8kg) comprising roof tile and a single fragment of brick derived from the boundary ditches and enclosure systems assigned to Phase 6a, the majority associated with enclosure L44.

Phase 6

Roof tile and a small quantity of brick was collected from Phase 6 land-use areas, the largest deposit (34.5kg) associated with moated enclosure L58 (Table 5.4). While most deposits derive from rubbish pits and ditches, there are a few incidences of the deliberate reuse of CBM. Although no buildings were identified within L58, fragments of roof tile (12.3kg) were incorporated into the infilling deposits of moat G402, and two large postholes (G378) were lined with peg tiles (14.1kg). Fragments of roof tile (1.5kg) may also have been deliberately placed in the metalled surfaces of L57 trackway G357, although the quantity is fairly negligible.

Other artefacts

Given the extensive area of settlement at Stratton during the earlier medieval period, the recovered Other Artefact assemblage is modest. Despite the presence of some quite substantial buildings, there are no indications of sumptuous living, although there are a few hints that some of the residents could afford more ornate goods or status symbols. Very few finds were generally recovered from the buildings themselves, due in part to the minimal excavation of some of these, although it is rarely possible to relate such finds directly to the building's construction, occupation or use anyway.

Other Artefacts related to building materials, fasteners and furnishings are limited in number, and there are instances of both residual and intrusive elements. Mortar was only found in two features, both within Phase 6 moated enclosure L58. This is unsurprising, as the structural evidence indicates that wooden buildings were the norm. The mortar in L58, however, does hint at the possibility of a stone building within the moated enclosure. A single fragment of cast lead window came was recovered from a roadside ditch (Phase 6, L55) lying just over 30m from the moat, which might suggest a glazed structure. If such a structure did exist, it may have served to emphasise the status of the occupants in comparison to the other dwellings at Stratton.

A total of 27 nails were found in Period 6 deposits, a slight increase in numbers when compared to earlier phases, for example 12 nails in Period 4 and 23 in Period 5. Use of nails in building construction during the earlier medieval period was limited due to construction techniques and the relative expense of ironwork. The nails from Period 6 deposits tended to occur as single instances within features such as pits, ditches, hearths or wells, but there were a few cases from Phase 6 where they were recovered from the fills of structural postholes, for example building G544 in L52, building G2277 in L54, and building(s) G1722/1724 in L56. It cannot be determined whether these relate to the actual structure of the building or, perhaps more likely, to its fittings and furnishings. None of the three staples recovered, one each from L49, L57 and L58 (Phase 6), was associated with any buildings.

The decoratively tinned keyhole plate OA30 (L51, Phase 6) is thought to be from an internal door, or perhaps a large chest, but like the staples it was not recovered from the vicinity of any building. Other household furniture fittings from Phase 6 include a plain C-sectioned binding and an unusual riveted anthropomorphic mount (OA95) from L56, and a brazed barrel padlock case (OA36) found in the western roadside ditch in L55. The C-sectioned binding came from a fence-line immediately outside building G1722/1724 and may well derive from the occupation of that building. Box mount OA95 lay over 35m to the south of the same building and brazed padlock OA36 20m distant, though all three could conceivably be related to the building's occupation.

Table 5.5: Knives from Period 6

Phase	Land-use area	G no.	Handle type	Blade form	Handle material
6a	L47	580	Whittle tang	-	
6	L51	3211	Whittle tang (AO146)	Ottaway E	Wood
6	L52	593	Whittle tang composite handle (OA148)		Wood with gunmetal collar and copper and brass plates
6	L53	1422	Scale tang (OA153)	-	Wood
6	L54	1768	Whittle tang	Ottaway D	-

Household furnishings are restricted to vessels. Only one of the four glass sherds recovered may be contemporary: the possible plain colourless beaker from the western roadway ditch in L55 could date from the later 13th century to *c.* AD1500 (Tyson 2000: 77), but that identification is tentative. The remaining glass sherds from Phase 6 are either residual (Roman glass handle from L54) or intrusive (L53 and L58). Neither of the two copper alloy vessels from Phase 6 – a 14th-century cauldron or skillet (OA69) from the western ditch of roadway L55, and a possible plate fragment (OA79) of late 13th- to 14th-century date from a boundary ditch in L59 – was found near any known buildings.

Knives were a multifunctional implement which could be used for eating, crafts, defence and even personal toilet, and were carried about by most of the population for use as and when the need arose (Cowgill *et al.* 1987: 51 and figs 22–31). Given the fact that knives were one of the more common implements in use, it is surprising that only five knives were recovered from the extensive deposits associated with Period 6 (Table 5.5) – compare for instance the ten examples from Period 5, or the 12 examples from the less expansive settlement of Period 3. The reason for this is unclear.

Four of the knives have whittle tangs, and two of these can be assigned to Ottaway's blade forms D and E (Ottaway 1992: 572). Both blade forms were previously encountered in Period 5 deposits and continued to be manufactured during the medieval period. The composite whittle tang handle on the knife from L52 is of a form thought to date from the 11th to the 13th century (Goodall 1993: 125), with a similar handle known from a mid-13th-century context in London (Cowgill *et al.* 1987: 26). The single instance of a scale-tang knife from L53 has a form of handle that was introduced in the first half of the 14th century (Cowgill *et al.* 1987: viii), indicating that this knife could not have been discarded until at least the very end of Period 6.

In contrast to previous periods, the evidence for textile production in Period 6 is limited. Although two lead spindle whorls were recovered (L52 and L54, Phase 6), the diameters of their central perforations indicate that they were used with the narrower spindles of the early to middle Anglo-Saxon period. The fragment of a loom weight from L46 (Phase 6a) is also residual: this would have been used in conjunction with a warp-weighted loom, which by this period had been replaced by the two-beam vertical loom. The presence of a single-ended pin beater with chisel-shaped butt end (OA111) in L54 does suggest that weaving was practised at Stratton during this period, although some caution is advised: the two-beam vertical loom was already in use during Period 5, meaning that OA111 could have originated from earlier activity. The only other textile-related object is a thimble from the surface of roadway L55 (Phase 6), but this has machine-made indentations and dates to *c.* AD 1730–1800.

Representation of bone- and antler-working at Stratton is generally poor, and Period 6 is no exception. A single antler off-cut was found in G1445 (L53, Phase 6). Finished items of bone were equally in short supply, confined to the single-ended pin beater (OA111: L54, Phase 6) and a small fragment of a comb connecting- or side-plate (L44, Phase 6a). Although the use of antler was in decline in the medieval period (MacGregor 1985: 32), bone would have been readily available to make the simple items noted in earlier phases, for example buzz bones, pig fibula pins and pin beaters. The paucity of objects made of skeletal material could perhaps signify a change in the residents' economy and fortunes, with less emphasis on textile production and perhaps the ability to purchase metal pins as opposed to bone ones.

The pair of compasses or dividers (OA130) from building G715 (L44, Phase 6a) could have been used by carpenters, masons or metalworkers. Without the presence of related tools used in these crafts, it is difficult to determine what the pair of compasses was used for. There are hints that non-ferrous metalworking

Table 5.6: Lead spills and droplets

Phase	Land-use area	G no.	Type	No.	Weight (g)
6a	44	4	Spill		3
6	48	5711	Spill		35
6	51	187	Spill		12
6	52	648	Off-cut	1	
6	52	1070	Spill		20
6	52	1089	Spill		2
6	52	1349	Spill		71
6	55	1885	Spill		6
6	57	347	Spill		24

Table 5.7: Weight of lava quern by Period

Period	Weight (g)	%
2	16	0.04%
3	41	0.10%
4	16,380	38.85%
5	10,020	23.76%
6	5381	12.76%
7	6628	15.72%
8	786	1.86%
9	2916	6.91%
Total	**42,168**	**100.00%**

may have been undertaken: a fragment of a two-piece ceramic mould (OA128) was found in L48 (Phase 6), suggesting that some casting of non-ferrous metals had occurred. However, the mould's association with early to middle Anglo-Saxon pottery casts some doubt on its contemporaneity. Small quantities of lead spills and droplets were recovered, as well as one lead sheet with cut marks from a knife (Table 5.6), but in general the quantities are meagre and certainly do not suggest extensive non-ferrous metalworking, but more likely occasional caulking or repairs.

In common with earlier phases at Stratton from the middle Anglo-Saxon period onwards, small quantities of ferrous slag were widespread across Period 6 deposits, mostly without any readily apparent concentrations. However, three places were identified from Phase 6 where ferrous smithing may have been carried out: fragments of three hearth bottoms came from G3591 and G3717 (L51); 1634g of ferrous slag and 1554g of hearth-lining, some with ferrous slag adhering, came from the northern enclosure in L52 (the slag generally occurred in small quantities, but taken together could suggest smithing somewhere within this enclosure); and 718g of ferrous smithing slag came from fence line G329, to the north of the moated enclosure in L58. It should be noted, however, that the overall weight of slag declined from its height of 7330.1g in Period 5 to 3695.8g in Period 6, perhaps indicating either that fewer repairs were being carried out or that smithing activity was more centralised.

Agricultural and subsistence-related activities in Phase 6 were represented by single occurrences of a billhook (OA220) from the southern enclosure in L52, a possible lead net-sinker (OA231) from the surface of roadway L55, and a millstone reused as a hearth in L50. Forty-two instances of querns, including three residual puddingstone bun-shaped querns (L50 and L55, Phase 6), were also found in 11 of the 16 identified land-use areas.

Although lava quern fragments still dominate the recovered Period 6 quern assemblage, most of the pieces are fragmentary and retain few (if any) diagnostic features. A number are likely to be residual from earlier periods. There is a noticeable reduction in the weight of lava recovered (Table 5.7), with Period 6 forming only 12.76% of the overall assemblage from Stratton, as compared to 38.85% in Period 4 and 23.76% in Period 5. This reduction might suggest that an additional source of stone besides lava was being used. However, this does not appear to have been the case: excluding the residual Hertfordshire Puddingstone, there are only two instances of querns made from another type of stone, both of which are small portions of Millstone Grit quern (weights below 200g), one of them burnt (L51, Phase 6).

The 13th century saw the introduction of a new form of quern, the pot quern, but only one example of this could be recognised at Stratton (see Period 7, L61; catalogue OA227). This suggests that there may have been an actual reduction in the number of hand querns in use at Stratton during the 12th and 13th centuries. The Millstone Grit millstone (OA228) found in L50 (Phase 6) was associated with 13th-century ceramics, suggesting that a geared mill was present in the vicinity by the 13th century – and perhaps earlier, given that the millstone had been reused within an oven/hearth. This could indicate that grain was generally not being ground on a domestic level by this date, but centrally at a mill. No mill is recorded at Stratton in Domesday Book, but one is recorded for Biggleswade, and it may have been

Table 5.8: Earlier medieval coinage in date order

Period	Land-use area	G no.	Type	Date
7	L66	426	Henry III short-cross penny	1217–42
6	L56	1581	Henry III long-cross penny	1247–72
8	L82	1153	Edward I sterling penny	1280–81
8	L82	2852	Alexander III penny	1280–86
	unstrat	2841	Edward III sterling penny	1300–25
6	L52	1187	Edward III farthing	1344–51
7b	L77	1550	Edward III sterling penny	1344–51
	unstrat	2821	Edward III half penny	1344–51

the case that grain from Stratton was being milled at Biggleswade; the tenant of the largest manorial holding in Stratton also held the manor of Biggleswade.

It appears that there was a general reduction in the number of craft-related objects in Period 6, when compared with Periods 4 and 5. One possible explanation of this apparent decline in local craft activity might be an increased reliance upon traded, external goods. As Hinton (1993: 143–4) comments:

> it would seem that most villagers did not have much involvement in anything but farming and basic crop processing ... Nearly everything that villagers required apart from home-grown foodstuffs had to be brought in, either by the villagers going to the markets themselves, or by itinerant pedlars. Barter cannot have sufficed for all the necessary transactions, since dealings with outsiders would surely have been possible only with cash.

Coins were not abundant in the Period 6 deposits. Furthermore, one of the four coins recovered is Roman and one dates to the late 17th century – only the long cross penny of Henry III (1247–72) from L56 (Phase 6) and an Edward III farthing (1344–51) from L52 (Phase 6) are contemporary. The quantities increase when earlier medieval coinage found residually in later phases is taken into consideration (Table 5.8), although caution must be exercised as the circulation period for some of these coins is extremely lengthy: for example, coins of Edward III still accounted for 50% of pennies in hoards of the early 1420s (Archibald 1988: 289). No coins dating to the later 12th century were found, but this is not surprising as it was not until the end of the 12th century that there was a greatly expanded availability of coinage (Rigold 1977). Additionally, all medieval coins were intrinsically valuable, meaning that fewer of them were likely to be casually lost (Archibald 1988:

Table 5.9: Horse-related equipment in Phase 6 (*italics* indicate intrusive; * indicates residual)

Land-use area	G no.	Group description	Object type	Possible related residence
L50	90	Fill of boundary ditch G89	Stirrup terminal(?) (OA384)	G120
L50	225	Fill of pit 224	Spur (OA212)	G120
L51	191	Fill of pit group G190	Horseshoe (Clark's type 2) (OA200); Horseshoe (Clark's type 4)	Continued use of buildings from L28 (Phase 5)?
L51	3594	Tree bole	Rumbler/croatal bell	
L54	1932	Fill of ditch G1931	Shoeing nail ('fiddle key')	
L55	1885	Roadway surface	Stirrup terminal (OA211)*; Horseshoe (Clark's type 4) 3/4; *Horseshoe (tongue) (OA205); Horseshoe (keyhole?); Rumbler/crotal bell* 2	
L56	1581	Deposit overlying eroded hollow	Shoeing nail (eared)	G1722/1724
L57	357	Cobbled area	Spur buckle	?Moated enclosure
L58	420	Fill of ditch G419	Horseshoe (Clark's type 4) (OA202)	Moated enclosure

264). The presence of a coin of Alexander III of Scotland is not unexpected, as English and Scottish pennies at this period were interchangeable, as evidenced by the fact that Scottish coins usually form a proportion of Edwardian coin hoards (Stewart and North 1990: 37).

Related to the use of coins and trade is the portion of an equal-armed balance (OA182) from the north enclosure in L52 (Phase 6), which contained substantial building G544. Salzman has commented that the standard of commercial morality in the medieval period was low; certainly forgeries, not to mention fraudulent weights and measures, were rife (Salzman 1926: 241). The balance suggests that the residents of G544 engaged in trade, and took the precaution of checking the quality of the merchandise or coins being exchanged.

The recovery of horseshoes and shoeing nails from Phase 6 deposits points towards the presence of horses within the earlier medieval village of Stratton (Table 5.9). Although there are no means of differentiating between riding and draught shoes of the medieval period (Clark 1995: 2), their occurrence in combination with spurs and harness fittings indicates the presence, if not numbers, of riding horses. However, the evidence for riding horses is equivocal in Period 6, as the associated spur, stirrup terminals and spur buckles date to the temporal extremes of this phase. Stirrup terminal OA211 from roadway L55 is residual, dating to the second half of the 11th century (Williams 1997: 2), while spur OA212 and possible stirrup terminal OA384 from L50 both date to the 12th century – the earlier half in the case of OA212. It is therefore possible that they were discarded at the very beginning of Period 6. In contrast, the double-oval lead alloy buckle with iron spur leather attachment (RA828) from L57 is most commonly found in deposits of the later 14th century and beyond, suggesting that it must have been lost or discarded at the very end of Period 6 if it was indeed contemporary.

Whether the horses were deemed riding or cart horses, their occurrence does indicate significant financial outlay. The initial purchase of a riding horse ranged between £3 and £10, equating to six months to one year's wages for a skilled London craftsman (Clark 1995: 8–9). Added expense was incurred in feed, shoes, harness and spurs. Cart or 'pack' horses, although demanding less of an initial outlay, still created a drain on resources with their upkeep (Clark 1995: 9–11).

The late 12th and 13th century in England witnessed an increase in other material consumption by agriculturalists, with a wider range of goods reaching them (Hinton 1993: 150). Tools, whetstones and dress accessories were most likely purchased, indicating not only that villagers were not restricted in their daily lives to what they could make themselves, but also that they had the wherewithal to acquire them, and occasionally indulge in small luxuries (Hinton 1993: 143–4, 150). This trend is evident to an extent at Stratton. Tools such as the billhook (L52, Phase 6), pair of compasses (L44, Phase 6a) and pennant whetstone (L51, Phase 6) are not closely datable and hence may be purchases of the earlier 14th century, but the equal-armed balance (L52, Phase 6), anthropomorphic box mount (L56, Phase 6), and knife with composite handle (L52, Phase 6) could all date to the late 12th to 13th century, and could all be considered a step above the 'run of the mill'. There are, however, few dress accessories that can be dated to the earlier part of Period 6. The headless copper alloy dress pin from L46 (Phase 6a) could well be residual from Period 5 activity, although there are a few known instances of these pins continuing in use into the 12th century (Walton Rogers 1993: 1364–7), while the lace sheath from L57 (Phase 6) could date from the second quarter of the 13th to the middle to late 14th century. The remaining dress accessories from Phase 6 deposits – including a buckle from L51, a turnshoe from L58, a lace tag from L55, and a wire-wound-headed pin from L50 – all date to the 14th century, and in the case of the shoe and the buckle to the later half of that century.

Chapter 6.
Late medieval to post-medieval settlement (Periods 7–8: *c.* AD 1350–1700)

Period 7 structural narrative

Stratton was still at its height at the beginning of Period 7. There is no indication that the population was devastated by the Black Death at the start of the period, although the demise of individual households may be attributable to this. In general, there seems to have been a high degree of continuity, albeit with a slight intensification and/or specialisation of agricultural and industrial pursuits. Numerous changes can be traced to individual farmsteads, fields and enclosure systems from their Period 6 layout, but this seems to have taken place at a household level, with the overall structure of the landscape undergoing relatively little transition until the latter stages of Phase 7 and Phase 7b (Figure 6.1). Manorial activity is illustrated by continued use of the moated area and the creation of two dovecots.

Phase 7

L61

Following on from the domestic and/or industrial focus of L49 in Phase 6, the features in L61 show a continued concentration of activity at the eastern end of enclosure system L62, though still without any excavated remains of a building to accompany it (Figures 6.2 and 6.3). Fewer features were present than in L49, yet they produced a slightly larger assemblage of finds than was recovered from their predecessors – these mostly came from a number of rubbish pits and the final infilling of Phase 6 well G5638, though the only particular concentration was in well G5659. The spread of features was bisected by ditch G5693 of L62, but there is no indication that they were associated with more than one dwelling or workshop: the large causeway through the ditch would certainly have allowed easy access between the two sides.

L62

The ditches of L62 (Figure 6.2) represent a further reworking of the enclosure system originally established at the north-western end of the excavated area in Phase 5b. The degree of fragmentation in their layout suggests that the Phase 6 boundaries of L48 largely remained extant, whether defined by ditches or by hedgerows.

L63

L63 represents a remodelling and expansion of the fragmentary enclosure system originally established in Phase 6a (Figures 6.1 and 6.2). There are few indications whether these fields were used for pastoral, arable or other purposes, although the presence of the dovecot and pits in L64 makes it unlikely that they were arable. Ditch G3747 may have formed a 'race' with the outer ditch to allow animals to be led through it for close examination, but there are no other particular signs of measures for livestock management. One of the ditches had the articulated skeleton of a dog (G3008) buried in it.

The ditches produced a fairly small assemblage of contemporary pottery, which is likely to have derived from the activity in L64 and possibly the Phase 7b activity in L79. A much larger non-ceramic assemblage was recovered, but it is unclear how much of this was contemporary with the enclosure system: while items such as two iron keys may have come from the dovecote in L64, the date of the large collection of flints is unclear, although enough were found to suggest that not all were residual, particularly when taken in conjunction with the assemblage from nearby L64. A third key from ditch G5201 suggests that building G5108 (Phase 5b) may still have been in use at this time, or at least had been until recently.

L64

Set within enclosure system L63, the remains in L64 comprised a focus of activity around dovecot G3500, and a cluster of pits to the south (Figure 6.3), although these may have lain within a different field to the dovecot. Most of the pits were fairly irregular in shape, and may have been small quarries – possibly to provide the gravel that was used in constructing the dovecot.

Two concentric cob walls formed the foundations of the dovecot, the outer of which was more substantial and was probably load-bearing (Figures 6.4 and 6.5).

Figure 6.1 (next page): Plan of all excavated remains from Period 7 (late medieval to early post-medieval) overlain on the Period 6 plan


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100m
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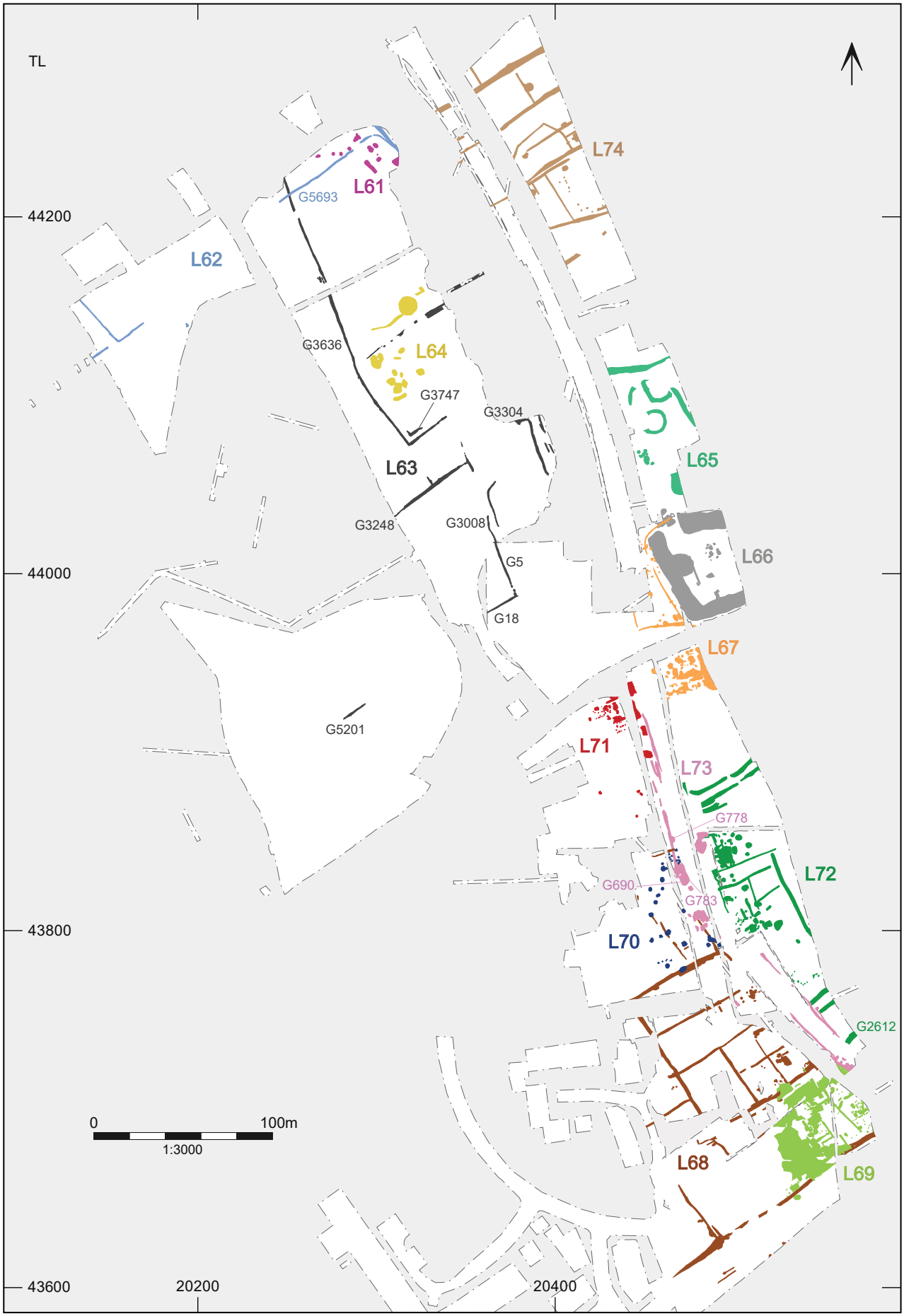
44200
44000
43800
43600
20200
20400
Phase 7
Phase 7b
Medieval features (Period 6)


TL
44200
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20200
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L61
G5693
L62
G3636
L64
G3747
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L63
G3248
G3008
G5
G18
L65
L66
L67
G5201
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G778
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G690
G783
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G2612
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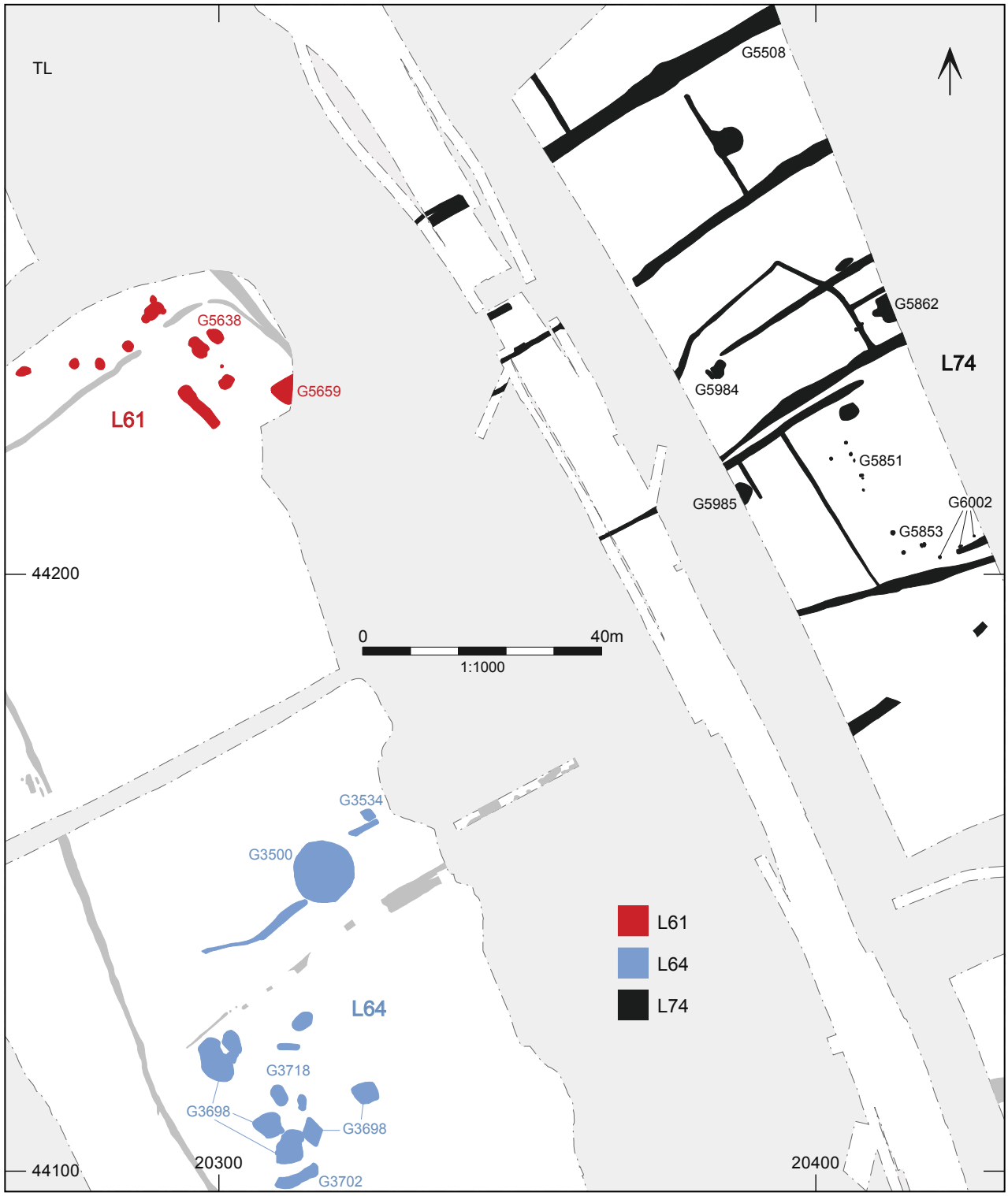


Figure 6.3: Close-up plan of land-use areas L61, L64 and L74, with other Phase 7 features in grey

These two walls were joined by two cross-walls on the eastern side, defining a 1m-wide entrance, while a gravel berm around the base of the outer wall may have been designed to act as a soakaway to keep the base of the wall dry. A pit in the middle of the dovecote was perhaps used to store the collected droppings. Figure 6.6 reconstructs how the dovecot may have looked.

Figure 6.2 (previous page): Overall plan of all excavated remains from Phase 7

A comparatively large finds assemblage was recovered from the features in L64. Relatively little pottery came from deposits directly associated with the dovecot, but

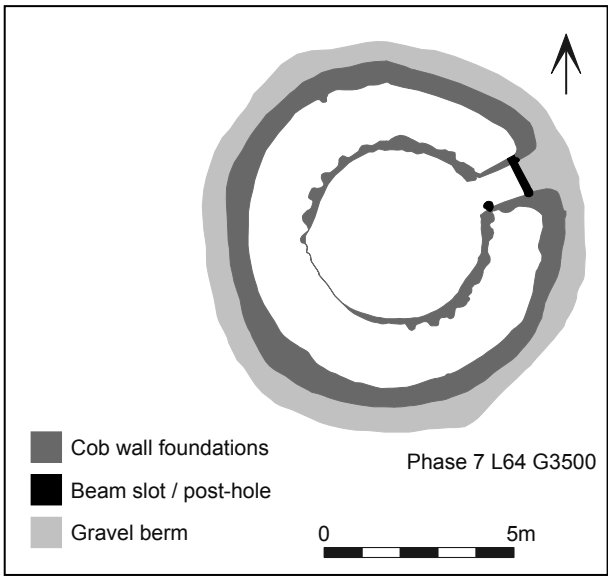


Figure 6.4: Plan of Phase 7 dovecot G3500

they did produce a large amount of animal bones and also, in common with L63, a substantial collection of flints. Several other finds such as an iron staple and a hinge pivot are likely to have come from the dovecot itself, but the small amount of tile recovered suggests the dovecot's roof was probably thatched. Pit G3534 next to the dovecot was sufficiently regular to have been dug as a rubbish pit, containing a moderately large assemblage of pottery, animal bone and non-ceramic items, but the remainder of the finds assemblage came mostly from quarry pits G3718 and especially G3698 to the south.

L65

The nature of the remains in L65 is unclear. Ditch G5892 formed an enclosure within an enclosure (Figure 6.7); the course of the outer ditch was partially obscured by recutting in Period 8, but no obvious entrance into the inner enclosure was apparent. The western side of ditch G5895 also seems to have been recut to form a pond during Period 8; the remainder was fairly shallow and enclosed a roughly circular area that was 10m in diameter. It may have been a drainage ditch around a circular building; no structural remains were identified, but a large amount of building material was recovered from Period 8 deposits (L84) in the immediate vicinity. A contemporary pond G5953 lay to the south, but the only other features in L65 were a further ditch to the north and a cluster of pits.

Figure 6.5: Dovecot G3500, looking west

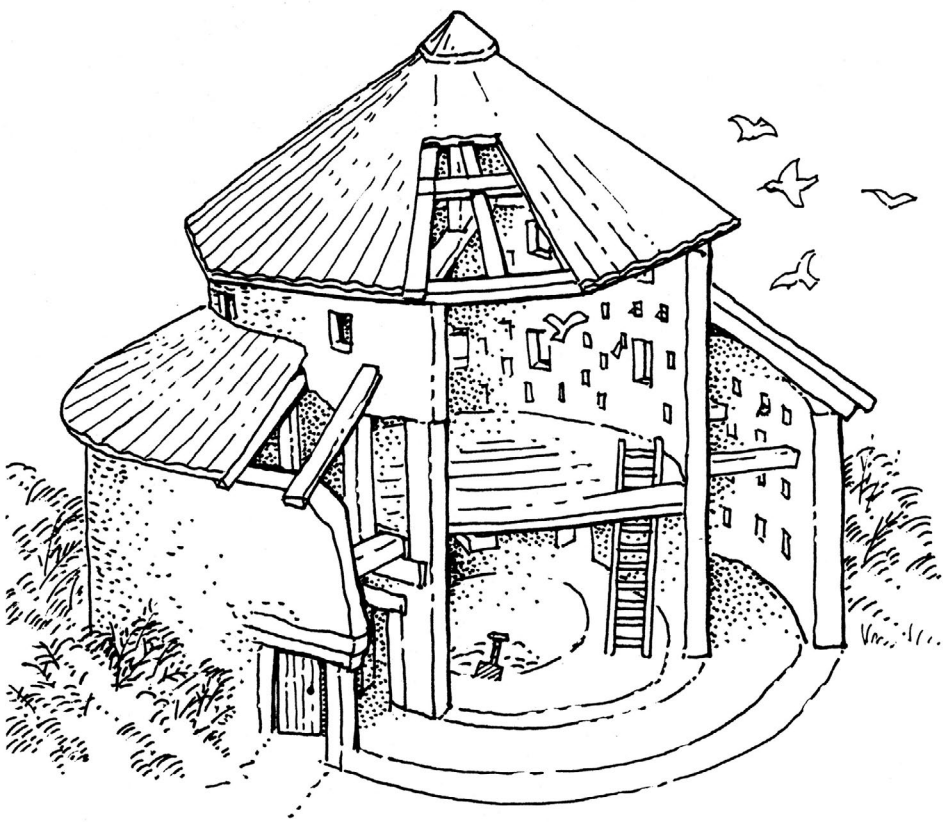


Figure 6.6: Reconstruction drawing of dovecot G3500

A moderate amount of pottery was recovered from L65, but the finds assemblage is generally not indicative of domestic activity. Ditch G5892 may have formed a stock enclosure, but it is possible that L65 overall represents a landscape that may have been at least partially ornamental, or perhaps horticultural: the non-ceramic assemblage includes a prong from a rake and a sickle.

L66

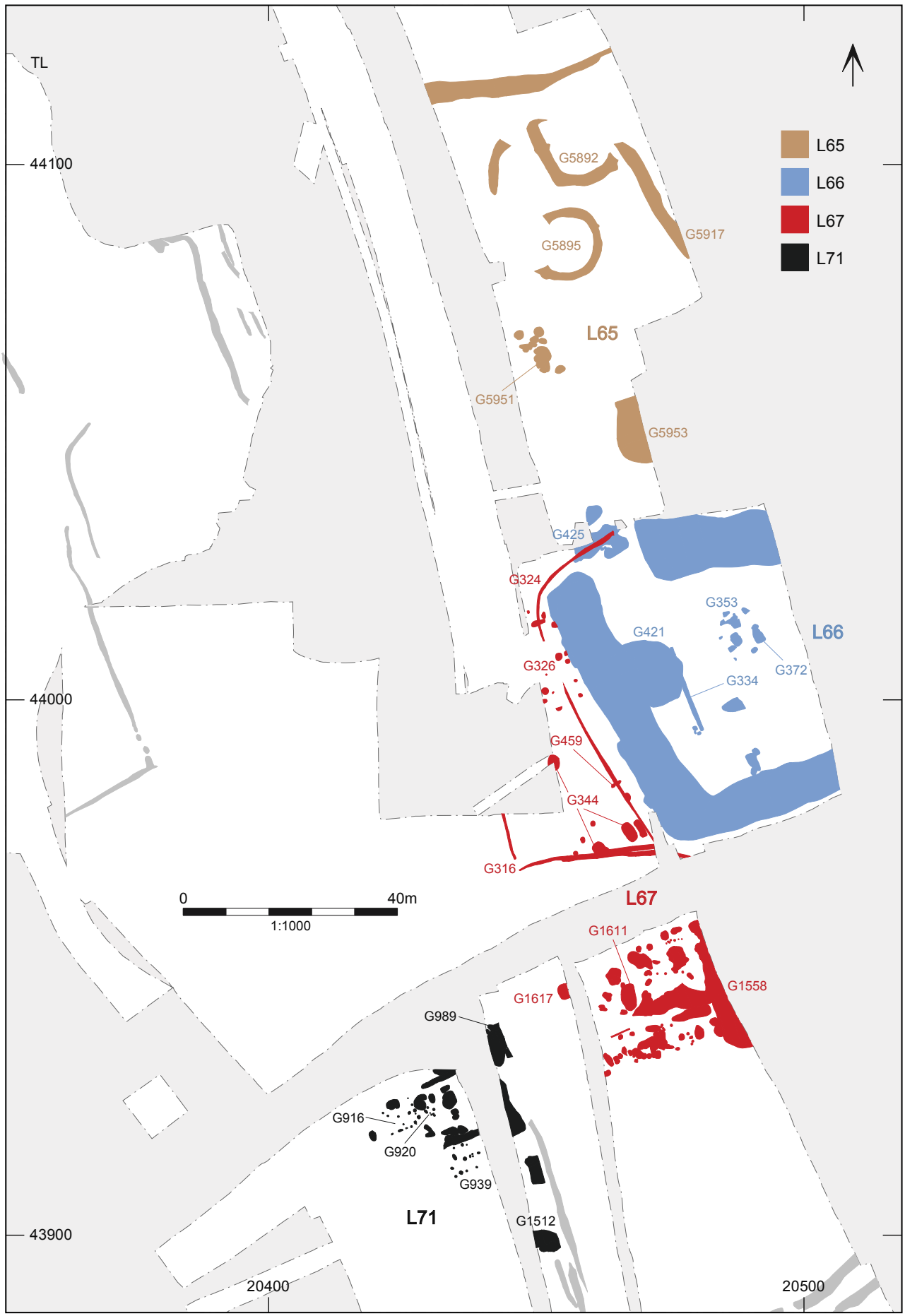
The moat that was established in Phase 6 (L58) continued in use throughout Period 7, with the ditch itself probably still open in Period 8. Its north-west entrance appears to have expanded considerably from what it was originally, with metalled surface G425 set down outside the entrance presumably to counteract the effects of erosion (Figure 6.7). Fewer features were apparent within the moated area: those created in Period 6 had probably gone out of use by this point (with the possible exception of ditch G387), while new features were restricted to the patchy remnants of another metalled surface (G353), several pits, and gully G334, which had a sufficiently square profile to suggest it may have had a structural function. The largest of the pits (G421) may have been a fishpond, although its depth of just 0.6m would have made it liable to drying up, suggesting that it was simply used as a water-collection pit.

Few artefacts in general were recovered from L66, and while a fairly large non-ceramic assemblage came from the final infilling of the moat ditch, nothing points towards the presence of a substantial building within the moated area. The presence of items such as three 17th-century farthings supports the theory that the moat remained at least partially open in Period 8, although a degree of intrusiveness is indicated by several finds from the 20th century. The moated area did produce large assemblages of charred plant remains from gully G334 and pit G372, pointing towards the use of this area for storage.

L67

L67 represents a concentration of activity to the west and south of moat L66 (Figure 6.7). It followed and expanded on the Phase 6 activity represented by L56, and may in fact have overlapped chronologically with Phase 6 farmstead L56: the limited dating evidence

Figure 6.7 (opposite page): Close-up plan of land-use areas L65–67 and L71, with other Phase 7 features in grey


TL
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L65
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L67
L71
G5892
G5895
G5917
G5951
G5953
G425
G324
G353
G421
G372
G326
G334
G459
G344
G316
0
40m
1:1000
G1611
G1617
G1558
G989
G916
G920
G939
G1512

suggests that L67 was later, but there was a negligible spatial overlap between them, perhaps indicating that they respected the same boundary.

The only hint of a building in L67 comes from G326: the arrangement of postholes is unconvincing, but this may in part be due to the truncation of further postholes by quarrying in Phase 7b. Several groups of postholes in the southern half of L67 represent the remains of less substantial structures such as fences or windbreaks, which are likely to have been associated with G1558, an extensive metalled surface. The artefact assemblage gives no particular clue to the function of this area, but the recovery of a claw hammer from pit G1617 at least points towards craft activity.

A few ditches in the northern part of L67 presumably served to mark land divisions, but the function of G324, a steep-sided gully that shadowed the perimeter of the moat, is particularly abstruse. The remainder of the features in L67 were mostly a spread of small to medium-sized pits, one of which (G459) contained the skeleton of a piglet. A few pits were slightly larger: the three in G344 are likely to have been water-pits, with the northernmost one measuring more than 1.45m deep, while the large assemblage of animal bone from G1611 suggests that it was used as a rubbish pit.

L68

The large farmstead L52 that was established in Phase 6 was remodelled by L68, with an apparent decrease in activity. No trace seems to have remained of building G544 that formed the focus of the Phase 6 farmstead, as evidenced by the ditch cutting across where the building used to be. Whereas the enclosures in L52 are likely to have had a mixture of arable, pastoral, industrial and domestic functions, there is no clear indication that domestic activity continued within this area into Phase 7, although L69 represents a focus of human activity within the southern part of L68. Industrial activity is attested by lead waste from ditch G1413 and ferrous smithing slag from pits G1454, but this material may well have derived from L69 (Figure 6.8). G1478 may represent two sides of a small building (the large of amount of animal bone recovered from it perhaps suggests a domestic function), but there was no other structural evidence outside of L69. Few other features could be identified as contemporaneous with the enclosures, which is more likely to reflect a genuine paucity than problems with dating evidence.

The ditches in L68 formed a larger and more regular network of fields than their predecessors and may well have been set out using a grid, deviating only where the fields adjoined trackway L73, which lay on a slightly different alignment. The differences in size between the enclosed areas presumably denote different functions; with domestic and industrial activity seemingly confined to L69, it was perhaps the case that the smaller fields were for arable cultivation and the larger ones paddocks.

L69

L69 represents an intensification of activity at the southern end of the excavated area (Figure 6.9), probably as a development of farmstead L53 that was established in Phase 6. The eastern half of the original farmstead was extensively remodelled and augmented, but the western half seems to have remained untouched, although it is unclear whether Phase 6 building G2570 and the arrangement of ditches to its west remained in use or were abandoned. It at least seems clear that this earlier structure was not the main building in L69: newly constructed house G2457 was much larger and had masonry foundations, a chimney and a cellar, although robbing of its foundations has obscured some of the building's details.

Much of the area surrounding the house G2457 is likely to have been a metalled yard, as represented by the patches of stone in G2489 and the more extensive spread G2550, although the accumulation of soil on top of this layer meant that its extent could only be traced within excavated slots. The house seems to have been at the centre of a complex of buildings: at least three others can be identified, while the sporadic presence of robber trenches such as G2455 and G2551 and fragmentary masonry remains such as G2782 point towards the presence of more. These are likely to have been outbuildings, the largest of which was G2536, whose internal dimensions were 6.5m × 8m. The precise function of G2536 is unclear, but the presence of drain G2544 might be an indication that the building was used for holding livestock. Almost as large was dovecot G2490; this was similar in size and construction to G3500 in L64, although the greater amount of tile recovered from its vicinity could mean that its roof was tiled rather than thatched.

In addition to the masonry buildings, or those which at least had masonry foundations, were two entirely timber structures: G2522 lay just a few metres from the main house and consisted of two perpendicular slots for ground beams, while the postholes in G2816 are likely to represent a small building. The postholes of G2681/2689 represent a further possible building, which may have been a bakehouse or a grain-drying

Figure 6.8 (opposite page): Close-up plan of land-use area L68, with other Phase 7 features in grey


TL
43800
G485
L68
43700
G1478
G2729
G1413
G1454
G1452
G1417
20400
0
40m
1:1000

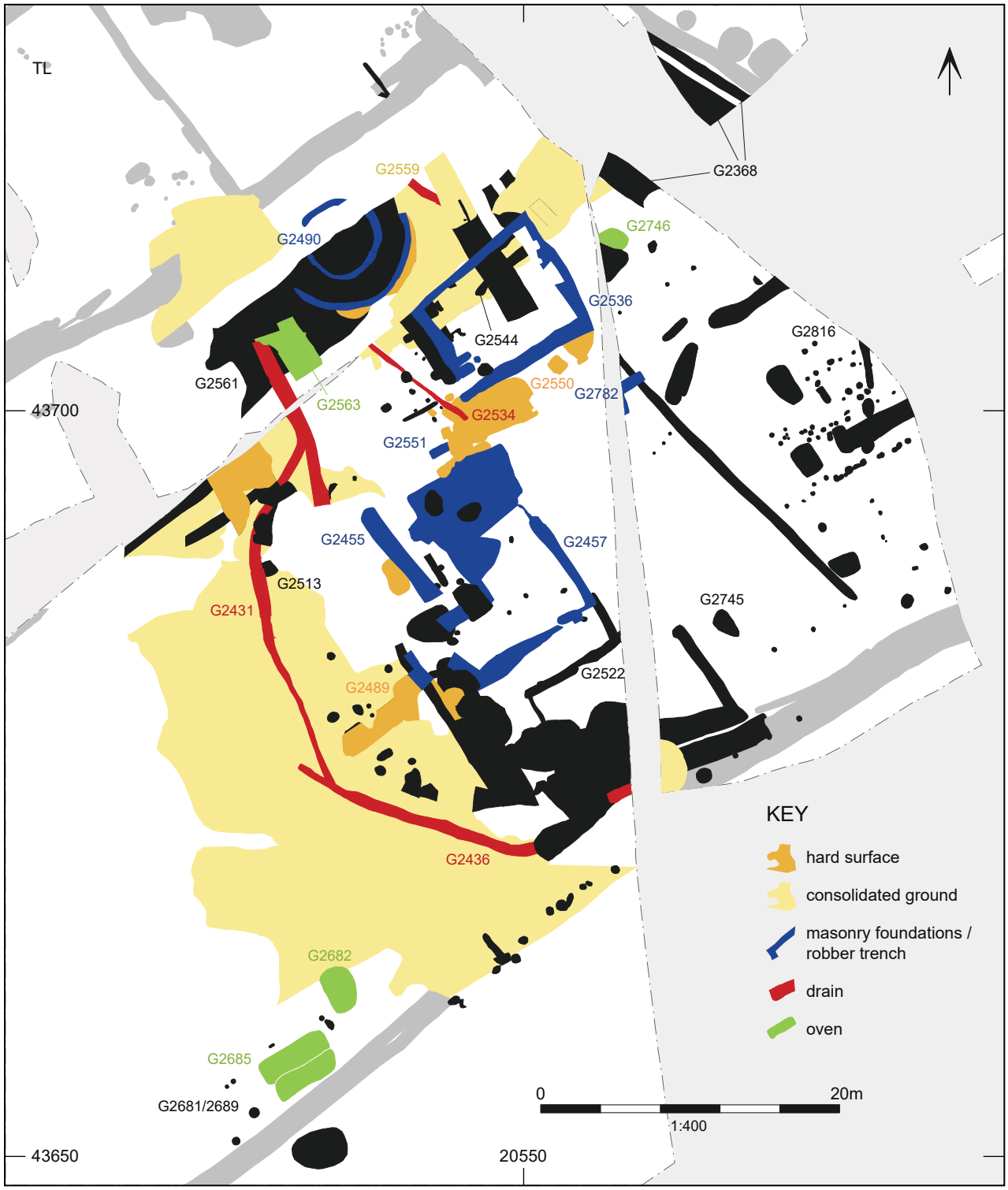


Figure 6.9: Close-up plan of land-use area L69, with other Phase 7 features in grey

shed: nothing survived *in situ* of G2685, but it is likely to have been a large oven, with a similarly sized ash pit on its southern side. A second oven G2682 lay just outside the building, while two further ones (G2563 and G2746) were present at the northern edge of L69, the latter possibly in association with a small pit for raked ash. No superstructure was apparent for any of these three, and there was no clear indication of how any of them were used, although the dimensions of G2563 suggest that it might have been a corn dryer. No concentrations of charred grain or other plant remains were recovered from the vicinity of any of these four ovens, though this may simply have been the result of deficiencies in the sampling strategy.

As well as the drain in building G2536, two other stone-lined drains were also identified. Drain G2534, which was only partially lined with stone, sloped down towards the north, and was perhaps designed to take waste water (and maybe other fluids) away from the outside of building G2536. The largest drain, however, was G2431/2436, with a total length of more than 50m; it appeared to drain water southwards, presumably issuing into L68 ditch G2729.

Relatively few pits were dug within L69, perhaps reflecting a difference in the way that foodstuffs were stored and rubbish discarded, or maybe just that these activities took place elsewhere. The pottery assemblage recovered from L69 is surprisingly small: concentrations were primarily restricted to demolition deposits in the cellar of building G2457, and either demolition or levelling layers between building G2536 and the dovecot. A similar distribution can be seen in the faunal assemblage, although the quantities involved are higher. There seems to have been only three pits that were used for disposing of rubbish: G2745, which produced a moderate amount of pottery; G2513, a 0.7m deep pit with nearly vertical sides that produced a large assemblage of animal bone; and G2368, a quarry pit which produced a moderate number of artefacts and a large quantity of charred grain . The large non-ceramic assemblage is dominated by material such as window glass and mortar that came from the buildings; the remainder gives little insight into how farmstead L69 functioned. One curiosity, however, is the recovery of ten headdress pins made from copper alloy wire: all 18 that were found at Stratton came from deposits either within L69 or nearby. The same is also true of the lace tags that were found, with 12 of the 23 in total coming from L69, perhaps further indicating that the inhabitants of this farmstead had a greater degree of wealth than their neighbours.

6.1.1.10 L70

The spread of features represented by L70 lay at or beyond the northern edge of enclosure system L68 and may in fact have been contemporary with the Phase 7b activity in L76 – stratigraphic relationships at least suggest that the northernmost part of enclosure system L68 no longer existed by the time that the pits in L70 were dug. No buildings were conclusively identified, but G785 perhaps represents some type of minor structure, while at least some of the postholes in G727 may have formed a small building (Figure 6.10). A line of tree-throws roughly defining the western extent of L70 perhaps represents the visible remains of a hedge, although they may have been caused by isolated trees.

Relatively few finds were recovered, but the large amount of ferrous smithing slag, in particular from pit G735 and to a lesser extent G1915, suggests a significant degree of metalworking. It is unclear, however, whether this activity took place within L70, or whether waste was being dumped here from elsewhere – pit G1915, for example, contained what appeared to be demolition rubble from a masonry structure. This is likely to have come from one of the buildings in L69: the same pit also contained a headdress pin, a concentration of which was found in that area. Well G546 (Figure 6.10:a) indicates that activity requiring a water supply took place nearby, but this may have been within enclosure system L68 to the south.

6.1.1.11 L71

Further evidence of quarrying along the western edge of the main road L73 was found in L71, as well a cluster of buildings, pits and metalled surfaces that probably signify an insubstantial smallholding (Figure 6.7). The postholes in G916 and G939 are likely to represent the remains of two buildings, but their form is indistinct, and it is unclear whether they were domestic dwellings or agricultural barns. The only other possible structure evident was G920, but this was too small to have been a building, and presumably represents the base of a raised structure. Evidence of a metalled surface survived between the two buildings and also in the top of backfilled quarry pit G1512, but it is unclear whether this represents localised consolidation of soft or boggy ground, or the fragmentary remains of a more extensive yard. Aside from the quarrying, which may have been unrelated to the activity within the smallholding, there was little evidence of activity outside the cluster around the two buildings. A moderate background level of finds was recovered from across L71, but the only concentrations were in pit G989 and quarry G1512, suggesting that those two features were used for disposing of rubbish away from the centre of the smallholding.

6.1.1.12 L72

The system of ditched enclosures that had its origins as L30 in the late Anglo-Saxon / Saxo-Norman period (Phase 5), before being developed by L54 in Phase 6, underwent further remodelling in L72. These Phase 7 fields extended further north than L54, with the curvature of the northernmost ditch suggesting that it formed the southern boundary to a continuation of Phase 6 farmstead L56.

Unlike L54, the remains of a substantial building were identified within L72 (Figure 6.10). G1967 was a rectangular building with stone foundations; it is unclear whether its walls were masonry or timber, but the 5kg of tile recovered from well G2017 and the 4kg from neighbouring ditch G1977 strongly suggest that

Figure 6.10: Close-up plan of land-use areas L70 and L72, with section drawing, and other Phase 7 features in grey

it had a tiled roof. The building is likely to have been a house rather than an agricultural building, although it appears not to have been especially long-lived: part of its eastern wall foundations were robbed, and a metalled surface was constructed over the demolished remains. Several lesser structures can also be identified: some of the postholes in G2267 may in fact have defined a second, smaller building, but those in G2662 to the south are more likely to have formed a lesser structure such as an animal pen. The distinctive apsidal shape of G2279 suggests it may have represented something more substantial: the postholes perhaps defined three sides of a building that was open towards the north-east, but there is no other indication of what such a building may have been. The only other structural remains were G2212 and G2217, which appear to have been no more than fence lines.

Understanding of the enclosure system in L72 is limited by its only partial revelation within the excavated areas, but it is at least clear that the central ditches formed a series of interconnecting fields or paddocks. Their layout tentatively suggests pastoral use, with corner entrances to make it easier to move animals from one paddock to another, while the ditches to the north and south may have formed droveways or tracks to enable

access to the main road L73. The pits at the southern edge of the central group of fields seem to have been quarries; these may have been dug to provide gravel for the surface of the main road, although the limited presence of gravel surfaces around farmhouse G1967 might be a sign that the quarried material was used within the farmstead.

Large amounts of pottery were recovered from ditches G1663 and in particular G1922 to the north and south of the farmhouse respectively, as well as from nearby pit G2196. The presence of building materials in the pit and in ditch G1922 suggest, however, that these finds represent material that was cleared away into available holes when the farmhouse was demolished; there is no particular evidence that the occupants disposed of their rubbish within the immediate vicinity. Even the fairly large assemblage of animal bone from ditch G1565 may have derived from the continued use of Phase 6 farmstead L56. Several fragments of quern stone found in the vicinity of the house are indicative of the latter stage of crop-processing, but the assemblage of non-ceramic finds generally points towards metalworking. Small amounts of lead waste were recovered, along with much larger quantities of ferrous smithing slag, although the largest concentration of the latter came from ditch G2612 at the very southern edge of L72 (Figure 6.2), making it unclear whether this relates to activity that took place within the farmstead or beyond it.

6.1.1.13 L73

The continued use of Phase 6 road L55 throughout the later medieval period is represented by L73, which constituted the recutting of several of its roadside ditches and the accumulation of a variety of pits along its margins (Figure 6.2). The larger pits were mostly quarries that are likely to have provided gravel for the road surface, although G690 and G778 are likely to have been dug deliberately as water-pits. None of the pits or ditches in L73 produced a substantial quantity of finds.

6.1.1.14 L74

L74 represents a development of the northern enclosures in L59. The overall character of the enclosures appears to have remained the same, albeit with only a narrow section of them visible, but few boundaries were retained, suggesting a high degree of fluidity in the enclosures' layout. A pastoral function is again the most plausible, with little evidence from the finds assemblage of nearby occupation; the only clear structural evidence consisted of two fences (or possibly a single one with a 10m-wide opening to the south-west) defined by postholes G5851 and G5853/6002 (Figure 6.3). Several fairly large pits were present; none had an obvious function, but some may have been water-pits and a few perhaps originated as quarries. Pit G5862 was distinctive, measuring less than 0.2m deep and with a flat base, but its function is also elusive, in part due to the fact that it was only partly revealed during excavation.

Phase 7b

Evidence for contemporary settlement began to diminish at the end of the medieval period, as the built-up part of the village retreated away from the excavated areas of Stratton, leaving an increasingly pastoral landscape in its wake (Figure 6.11). The western part of the village was still a busy focal area – much of the activity begun earlier in Period 7 continued, and new clusters of pits related primarily to either agricultural or industrial processes – but the volume of building material within the infilled pits and ditches points towards the demolition of earlier structures, with no substantial new ones to take their place. In the enclosed areas, there seems to have been a move away from networks of relatively small enclosures towards larger ones in their place, with an additional return to enclosure in the westernmost part of the excavated area.

L75

Following the apparent demise of at least the central part of enclosure system L68 that was established earlier in Period 7, a simpler and smaller system was established in L75. This seems to have consisted of a single large enclosure defined by ditches G1043 and G1053, with a track or droveway to the south (Figure 6.11). The offset entrance to the enclosure at its north-west corner is likely to have been designed to control the entrance and egress of animals, suggesting a pastoral function. Ditches G1077 and G1079 may represent a modification to the enclosure that reduced it to roughly half its former size, with a droveway along its western edge, although the stratigraphic relationships are uncertain: they may in fact have defined an earlier enclosure that was then enlarged.

The fields in L75 are likely to have been contemporary with the existence of Phase 7 farm L69, as suggested by the large amounts of animal bone deposited in ditch G1309/1331, which also contained a large amount of charred grain within a redeposited burnt deposit. Large amounts of tile were also found in ditches G1283 and G1317, which may have come from the demolition of buildings in L69. No buildings were conclusively identified within enclosure system L75, but the postholes in G1149 and G1234 may have formed a small D-shaped structure.

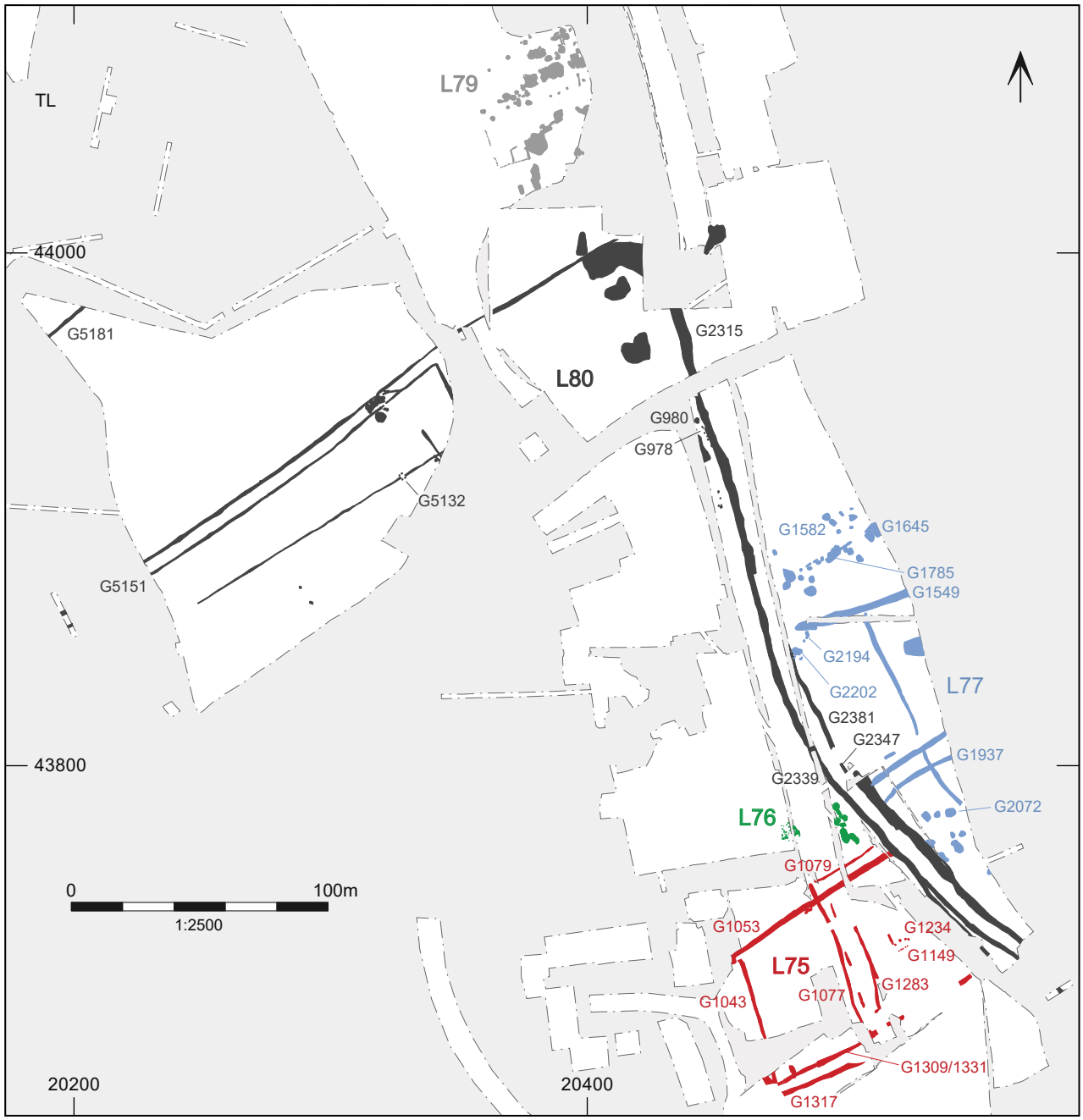


Figure 6.11: Overall plan of all excavated remains from Phase 7b

L76

L76 represents a focus of activity at the northern end of Phase 7 enclosure system L68 (Figure 6.11). Stratigraphic relationships and finds data suggest that it occurred towards the end of the enclosure system's life, perhaps contemporaneously with the newly constructed enclosure L75 to the south.

There were enough postholes in G656 to suggest that they represent some sort of small building – probably an agricultural or industrial structure – but its form is unclear (Figure 6.12). The finds assemblage gives no clue as to what activities might have taken place here: a small amount of slag was recovered from water-pits G792 (Figure 6.12:a), but this may have derived from L70 (Phase 7) to the north, which produced much higher quantities. Moderate amounts of pottery were recovered from the water-pits and from quarry pit G1905, suggesting that they were used for disposing of rubbish, although the low quantities of animal bones and charred plant remains in them suggest that there was no significant domestic activity close by. Metalling between the two water-pits may have been designed

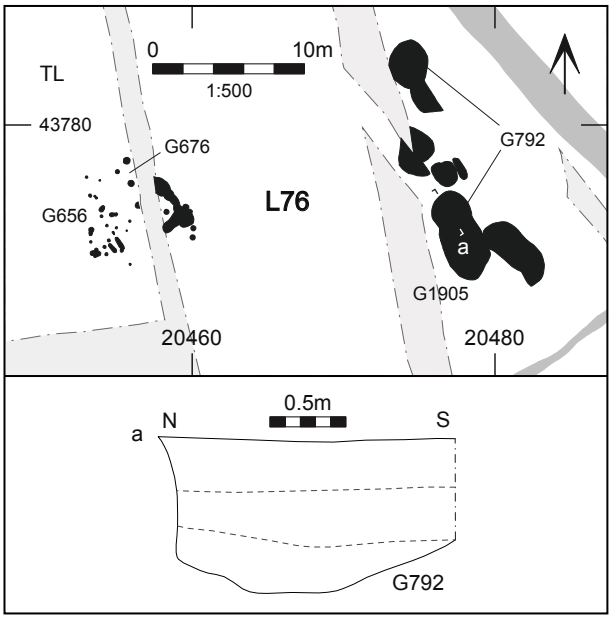


Figure 6.12: Close-up plan of land-use area L76, with section drawing, and other Phase 7b features in grey

to consolidate ground that had suffered from heavy trampling, although the pits' steep sides suggest that this would have been from humans rather than animals.

L77

The enclosure system that had been established earlier in Phase 7 (L72) was remodelled in L77, with two large enclosures replacing the network of smaller ones, flanked to the south by a droveway (Figure 6.11). A pond lay partially revealed in the eastern enclosure, suggesting a continued pastoral function for this area, although the presence of a grain-drying oven G2202 in the western enclosure attests to at least the processing of crops nearby. The oven was constructed of bricks and tiles, with waste from it seemingly deposited in pit G2194.

The remainder of the features mostly comprised two clusters of pits: one to the south that appeared to be centred on structure G2279 (L72, Phase 7); and one to the north that was concentrated along a Phase 7 track or droveway, which presumably was no longer in use by the time that the pits were dug. Moderate but not particularly substantial assemblages of finds were recovered from both clusters, albeit restricted primarily to just a few features within them: pits G1582 in the northern cluster contained a concentration of pottery, animal bone and tile; a large amount of charred plant remains and animal bone were recovered from nearby pits G1645 and pit G1785 respectively; and pits G2072 to the south produced large quantities of pottery. While the material in the southern cluster may have derived from the use of Phase 7 structure G2279 (L72), the location and form of the activity associated with the northern cluster is unclear, and may have lain in the unexcavated area to the east.

L79

Although L79 was situated physically within Phase 7 enclosure system L63, stratigraphic relationships suggest that at least the ditched element of the enclosure system had started to go out of use by the time that these features were created. In common with L64 (Phase 7) to the north-west, much of the activity related to what appear to have been quarry pits (Figure 6.13), although these ones are more likely to have been used to provide material for the northward continuation of trackway L80. No buildings were identified, although some degree of structural activity was clearly taking place – fence G3417 defined two sides of an area that appears to have been subdivided by ditches G3039, perhaps to form an animal pen or similarly minor structure. There were also metalled surfaces (G3045) near this fenced area, while a mixture of stone and tile was used to fill in the depression left primarily by rubbish pit G3384. This was one of only two features in L79 to produce a moderately large assemblage of pottery, the other being quarry pit G3365. The recovery of a padlock key from this capping layer, a door key from pit G3034, and door studs from pit G3229 and one of the metalled surfaces point towards more substantive structures, although it is possible that all but the door key are residual.

L80

The ditches of L80 represent the final incarnations of the roadside ditches that flanked the main north–south road (Figure 6.11). This is reflected in the finds that were recovered from them: while the pottery assemblage includes nothing more recent than late medieval in date, several post-medieval non-ceramic items point towards the lane's continued use after settlement had ceased within its immediate vicinity. There were already few signs of human occupation on the western side of the road to the north of L76: a large amount of pottery and animal bone came from pit G980, but there were no other particular clusters of finds. Parts of the lane may have been fenced in, as suggested by postholes such as those in G978 and G2339, although their intermittent distribution might indicate that they represent roadside structures.

The presence of large ponds to the north is indicative of a pastoral landscape to the west of the road. Ditch G25 is likely to have formed one side of a large field, with what was presumably a large stock enclosure to the south; the function of G5132 is uncertain, but the four posts perhaps formed the base of a gate structure or stile. A track or droveway between the stock enclosure and

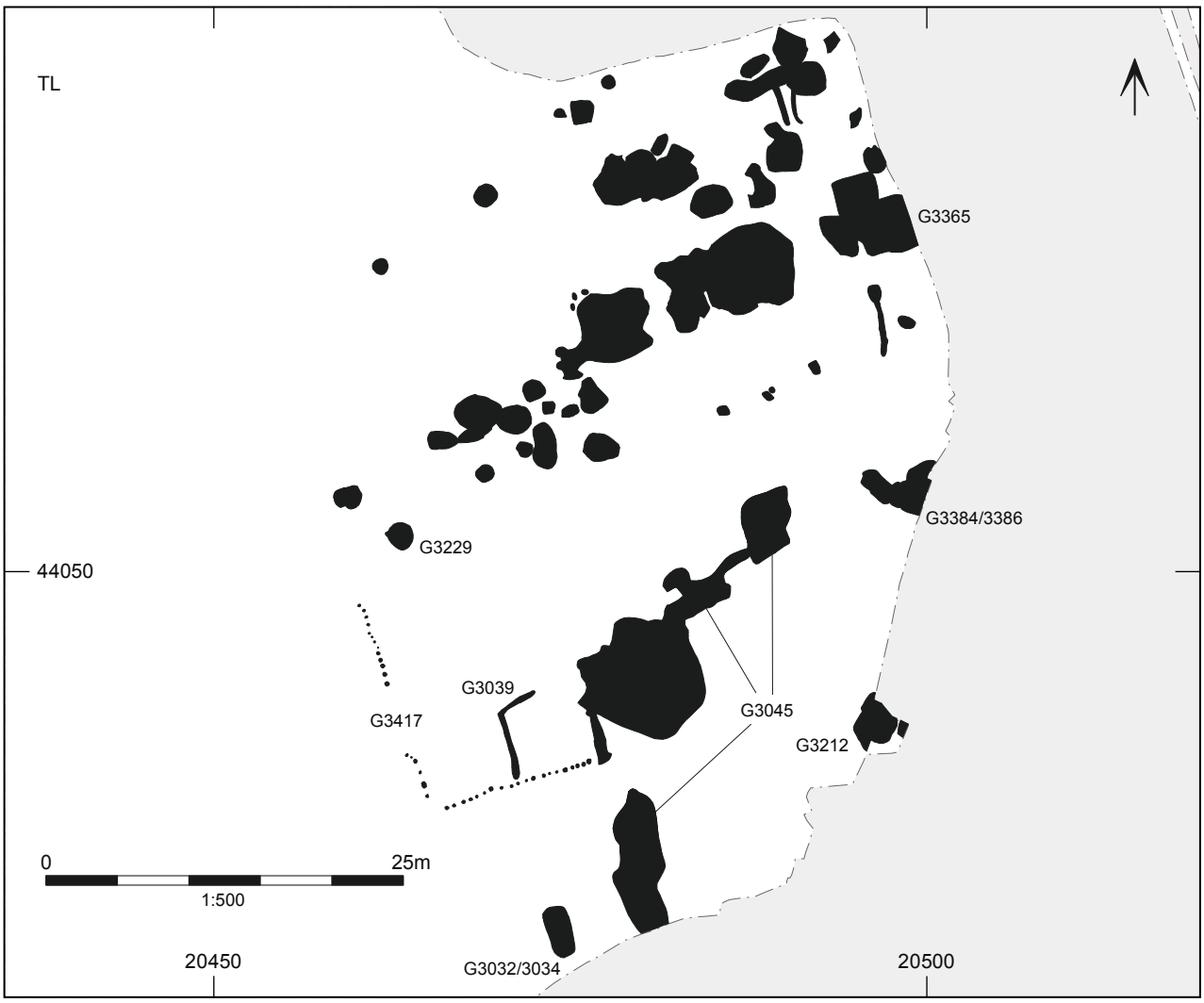


Figure 6.13: Close-up plan of land-use area L79

the adjacent field boundary (G5151) led off to the west, although it is unclear whether it connected directly with the north–south road. The recovery of six large fragments of tile from ditch G5181 suggests that there was perhaps a field barn nearby, but no remains of one were found within the excavated areas.

Period 7 artefacts

Pottery

Phase 7

Pottery associated with Phase 7 settlement and activity foci comprises 3195 sherds (31kg) from 2418 vessels. Mixed residual material, principally of early or high medieval date, accounts for 70% of the assemblage, much of which derives from the reworking of earlier deposits. Intrusive post-medieval wares total 2%. Pottery was collected from a wide range of deposits and feature types (Table 6.1), with 53% of the assemblage deriving from pits (including storage, rubbish and quarry types), and 28% from ditches. Structural cuts and 'positive' layers associated with buildings yielded approximately 10%, with the remainder deriving from other deposits.

Variable sherd weights across land-use areas, ranging from 6g to 15g, indicate different deposition patterns. Smaller sherds suggest gradual processes of silting or natural accumulation, contrasting with heavier sherds, which may represent deliberate episodes of refuse disposal. None of the land-use areas yielded a particularly large assemblage: the greatest pottery concentration weighs 4.3kg and derives from enclosure system L72 (Table 6.2).

Settlement-related activity foci

Thirty-one percent of the Phase 7 assemblage derived from settlement-related foci L61, L67, L69 and L71. All land-use areas contained a similar suite of wares

Table 6.1: Phase 7 pottery quantification by feature type

	Feature type	No. sherds	% Sherd	Wt (g)	% Wt
Structural	Demolition spread	81	2.4	363	1.2
	Make-up layer	32	1.0	171	0.5
	Occupation debris	16	0.5	159	0.5
	Robber cut	11	0.3	157	0.3
	Structural cut	141	4.3	1,105	3.6
	Structural dump	2	0.1	14	0.1
	Wall	50	1.6	1067	3.4
	Sub-total	333	-	3036	-
Other	Ditch	916	28.5	9420	30.4
	Ploughsoil	7	0.2	25	0.1
	External dump	91	2.7	1417	4.6
	External surface	73	3.1	797	2.6
	Layer	48	1.5	285	0.9
	Natural interface	17	0.5	138	0.4
	Pit (non-specific)	1217	38.0	11,446	36.9
	Pit (quarry)	198	6.1	2410	7.7
	Pit (rubbish)	293	9.1	2098	6.7
	Well	2	0.1	19	0.1
	Sub-total	2862	-	28,055	-
	Total	**3195**	**100**	**31,091**	**100**

Table 6.2: Phase 7 pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L61	Settlement-related activity area	178	2644	15
L62	Field/enclosure system	8	113	14
L63	Field/enclosure system	152	1141	8
L64	Dovecot and quarrying	455	3721	8
L65	Activity related to water management	267	1874	7
L66	Moated enclosure	156	2189	14
L67	Settlement-related activity adjacent to moat L66	216	1884	9
L68	Field/enclosure system	370	3823	10
L69	Farmhouse and dovecot	273	3463	13
L70	Agricultural activity within field/enclosure system L68	161	1044	6
L71	Smallholding and quarrying	330	2734	8
L72	Enclosure system	399	4330	11
L73	Trackway	65	642	10
L74	Field/enclosure system	165	1489	9
Total		**3195**	**31,091**	

MSW: mean sherd weight

and vessel forms (jars, bowls and jugs), with residual material dominating. Pottery from each area is highly fragmented, with few vessels represented by more than single sherds (vessel to sherd ratio 1:1). Mean sherd weights are variable, ranging between 8g (L71) and 15g (L61), suggesting different depositional processes. Examples of single vessels weighing in excess of 100g are rare, and few useful comments can be made regarding the material.

The L61 assemblage (178 sherds: 2.2kg) derived entirely from the fills of rubbish pits and wells, predominantly the disuse fills of well G5659 (827g). Its relatively high mean sherd weight of 15g suggests that the material may have accumulated through deliberate episodes of refuse disposal. The assemblage from L67 (216 sherds: 1.9kg) came from a similar range of feature types, with the addition of ditches: the largest pottery concentrations were associated with the infilling and disuse of water-pits G344 (45 sherds: 568g). L71 features yielded a larger assemblage of 330 sherds (2.7kg), with quarry pit G1512 (44 sherds: 512g) providing the single largest concentration.

The L69 ceramic assemblage, while the largest of these four, is modest in comparison with the corresponding faunal and non-ceramic assemblages. Pottery concentrations primarily derived from G2559 (588g), representing a sequence of dumped material associated with nearby construction activity; and demolition deposits in the cellar of building G2457 (511g). Pottery from the latter comprises a range of late medieval and early post-medieval vessels, while the G2559 assemblage is entirely early medieval in date. Negligible assemblages were associated with other L69 structures. Sherds from 20 fragmented vessels (170g), mainly of late Anglo-Saxon and early medieval date, derived from layers associated with the construction, make-up, and disuse of dovecot G2490. Small, entirely residual assemblages were associated with structure G2816 (12 vessels: 120g), and outbuilding G2536 (4 vessels: 8g). The disuse fills of ditches and pits yielded the remainder

of the assemblage, the largest concentration (428g) deriving from quarry pit G2368.

Agricultural/industrial activity foci

Modest assemblages, weighing between 1.0kg and 2.2kg, were collected from land-use areas L65, L66 and L70, with a slighter larger amount (3.7kg) from L64. Pottery from each land-use area is highly fragmentary, with few vessels represented by more than single sherds. Mean sherd weights for wares from L64, L65 and L66 are only 7–9g. A high incidence of residuality occurred within these areas: late medieval pottery accounts for 39% and 45% of the assemblages from L70 and L60 respectively, and just 3% for L64, half the pottery from which is Saxo-Norman or earlier.

The largest pottery concentration in L65 derived from intercutting pits G5951 (736g), and in L70 from rubbish pit G1915 (43 sherds: 212g). The fills of moat ditch G402 produced the largest assemblage from moated enclosure L66 (38 sherds: 795g), although 15 of these sherds are post-medieval or modern, supporting the theory suggested by the non-ceramic assemblage (Table A5.40) that material continued to accumulate in the ditch long after Period 7. The material from L66 is generally less fragmented than that from L64, L65 and L70, reflected in a mean sherd weight of 14g, and includes less residual material: 60% of the assemblage is datable to the late medieval period.

Features in L64, which represent the remains of quarrying and other activities in the vicinity of dovecot G3500, yielded an assemblage totalling 455 sherds (3.7kg). The largest concentration, comprising mainly residual early medieval material, derived from the infill of quarry pits G3698, located to the south of the dovecot (99 sherds from 83 vessels: 1.4kg). Rubbish pit G3534, adjacent to the dovecot, contained pottery from 54 vessels (73 sherds: 636g), only one of which, weighing 20g, is of late medieval date. Deposits directly associated with the infilling and disuse of the dovecot yielded a mixed, largely residual group of 163 sherds (899g), some of the most fragmented examples deriving from agricultural deposits sealed beneath the structure.

Field/enclosure systems

Variable amounts of pottery derived from field/enclosure systems L62, L63, L68, L72 and L74, with the assemblages ranging in size from 113g (L62) to 4.3kg (L72). Significant quantities of reworked, residual late Anglo-Saxon and earlier medieval material are present throughout, with contemporary pottery accounting for as little as 5% of the assemblage from each land-use area. The contemporary pottery mainly comprises reduced wares (E01), supplemented by a smaller quantity of oxidised types (E02 and E03). Pottery is similarly fragmented across the land-use areas: except for the few sherds from L62, the mean sherd weights range between 8g and 11g. Most single vessels represented each weighs less than 100g.

L62 and L63 represent reconfigurations of Phase 6 enclosure systems L48 and L51 respectively. The assemblage from L62 (8 sherds: 113g) is negligible, and only a modest assemblage of mixed date (152 sherds: 1.1kg) was recovered from L63, in which residual prehistoric, Roman, Anglo-Saxon and early medieval wares are dominant. Contemporary pottery from enclosure system L63 totals only 11 sherds (90g), and is likely to have derived from activity associated with L64, which lay within the enclosure system. Most of the pottery (765g) was concentrated in the disuse fills of ditches G3636, G3304 and G3248, with all other deposits weighing less than 100g. The fragmented nature of this assemblage is demonstrated by a low mean sherd weight of 8g.

L68 represents the modification and development of Phase 6 farmstead L52. The largest pottery concentration (73 sherds from 47 vessels: 1.2kg) came from the disuse fills of enclosure ditch G485, including ten sherds (200g) from a sooted cauldron (Figure 6.14: P130) in oxidised ware E03. A sizeable non-ceramic assemblage was recovered from the same feature (Table A5.37).

The enclosures in L72 were a remodelling of the Phase 6 ones in L54. Despite the presence of substantial structural remains, no pottery was recovered from their associated deposits, although the largest pottery concentration derived from ditches in the vicinity of building G1967. The upper fills of ditch G1663 yielded 70 sherds from 11 early medieval vessels (939g), including 46 sherds (437g) from a shelly jar (Figure 6.14: P240). Thirty-eight residual vessels (48 sherds: 597g), each represented by less than 100g, derived from the disuse fills of ditch G1922. The upper fills of nearby pit G2196 contained the partial remains of seven medieval vessels (26 sherds: 559g), including 19 sherds (447g) from a type C59B jar (Figure 6.14: P162). These assemblages are thought to derive from the clearance of material following the demolition of building G1967: there is little evidence suggesting rubbish disposal by the occupants of the farmhouse within the immediate vicinity. The remaining features, mainly ditches and quarry pits, each yielded mixed and fragmented assemblages weighing less than 220g each.

A modest assemblage weighing 1.5kg was collected from enclosures L74, with the largest single concentration deriving from pit cluster G5984 (477g). The pottery from L74 is highly fragmentary, with few vessels represented by more than single sherds, and a mean sherd weight of 9g. L74 represents a reconfiguration of the Phase 6

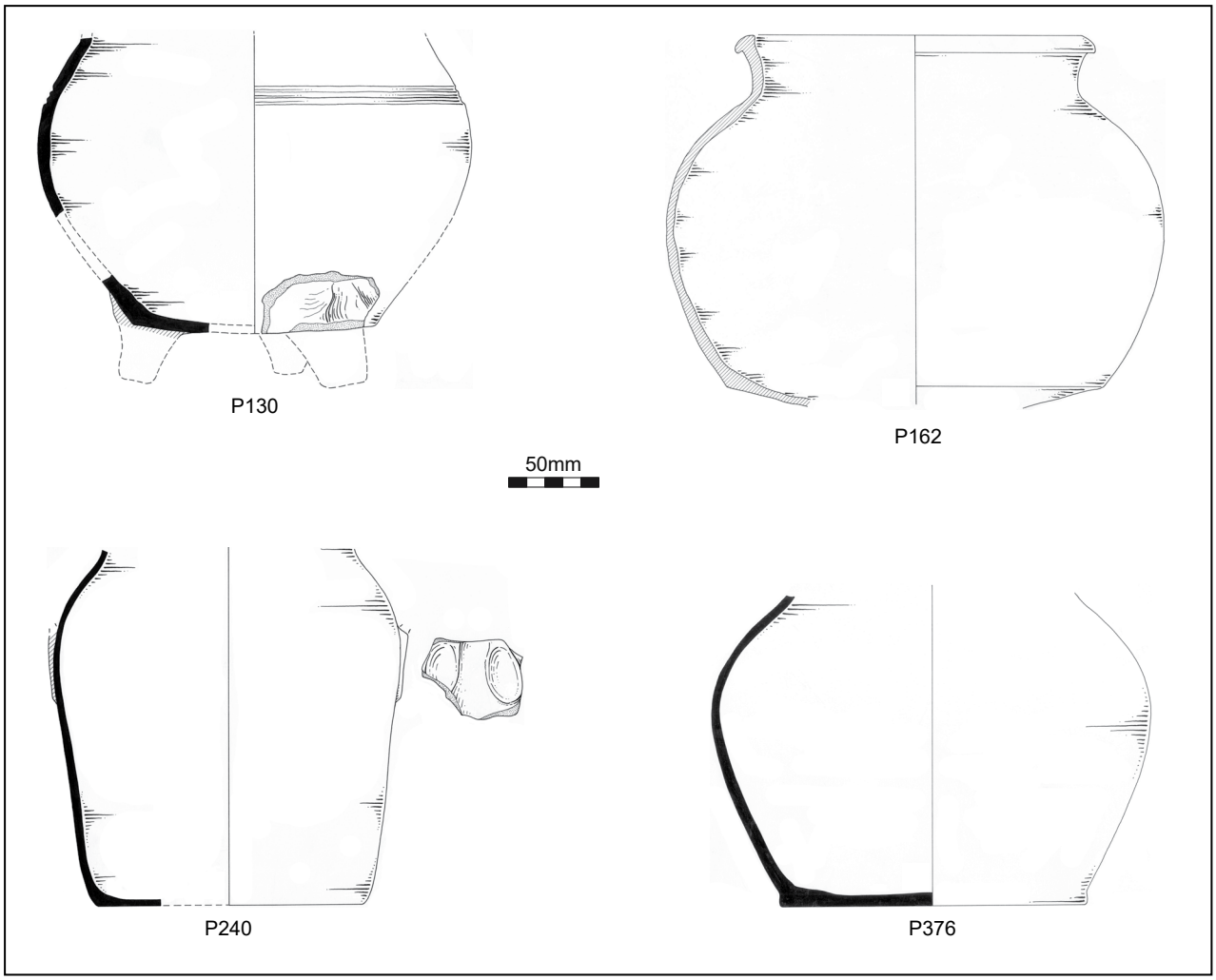


Figure 6.14: Selected pottery drawings from Period 7 features. Scale 1:4

enclosure system L59, which was probably the origin for the 94% of the pottery from this assemblage that is residual.

Trackway

A small assemblage (65 sherds: 642g) was associated with the development and continued use (L73) of Phase 6 trackway L55. No pottery was collected from the road surface, and only a few sherds derived from the disuse fills of the flanking ditches. The infilling of pit group G783 and the upper fills of well G778 contained the largest pottery concentrations – 246g and 115g respectively – with all other deposits weighing less than 70g. Only eight late medieval sherds (31g) were recovered: the majority of the pottery is earlier medieval in date.

Phase 7b

The primarily agricultural and/or industrial land-use areas assigned to Phase 7b yielded 1290 sherds (11.6kg) from 935 vessels. As in the Phase 7 assemblage, the majority of the pottery (69%) is residual, deriving from reworked late Anglo-Saxon and medieval deposits. Intrusive post-medieval and later wares total 3%.

Pits (principally rubbish and quarry types) accounted for 69% of the assemblage, and ditches 21%. Approximately 1% occurred in postholes relating to animal pens or fences, the remainder deriving from external surfaces and dumps associated with the demolition of earlier structures. None of the land-use areas yielded a particularly large assemblage, quantities ranging from 905g to 4kg (Table 6.3). The fragmented nature of the assemblage across all land-use areas is demonstrated by a low vessel to sherd ratio of 1:1.

Enclosure system

Ditch fills associated with enclosure system L75 yielded a meagre assemblage of mixed date (87 sherds from 75 vessels: 905g). Most are likely to have originated from adjacent Phase 7 farmstead L69, which had occupied the

Table 6.3: Phase 7b pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L75	Field/enclosure system	87	905	10
L76	Focus of activity	218	1947	9
L77	Enclosure system	538	4000	7
L79	Quarrying	286	2569	9
L80	Trackway and enclosure system	161	2274	14
Total		**1,290**	**11,695**	

MSW: mean sherd weight

same area. The largest pottery concentrations derived from ditches G1053 and G1283, which respectively contained 241g and 235g of pottery.

Activity foci

Modest assemblages were collected from activity foci L76 and L79, weighing 2.0kg to 2.6kg. Pottery from each land-use area is highly fragmentary, with few vessels represented by more than single sherds. Mean sherd weights for wares from both foci are 9g. A high incidence of residuality is evident, with late medieval pottery totalling 48% and 21% respectively of the L76 and L79 assemblages.

The largest L76 pottery concentrations occurred in quarry pit G1905 (48 sherds from 29 vessels: 722g) and water-pit G792 (103 sherds from 85 vessels: 812g), suggesting secondary use for the disposal of rubbish. Seventeen sherds (423g) of a high medieval Brill/Boarstall jug (Figure 6.14: P376), collected from G1905, represent the largest single pottery deposit.

The most sizeable and least fragmented L79 assemblage derived from quarry pit G3365 (57 sherds from 3 vessels: 509g), and includes 21 sherds (213g) from a type E01D vessel. The remains of 14 vessels (27 sherds: 496g) derived from rubbish pit G3384, including 12 sherds (417g) from an E02 jar, representing the largest single L79 pottery deposit.

Enclosure system

Some 42% of the Phase 7b pottery derived from L77, which yielded 538 sherds (4kg) from 395 vessels. Representing a reconfiguration of Phase 7 enclosure system L72, both contained a similar range of mixed, predominantly residual wares, about which little comment can be made. The largest pottery concentrations occurred in the disuse fills of pit group G2072 (161 sherds from 107 vessels: 1.2kg) and boundary ditch G1937 (38 sherds from 16 vessels: 617g).

Trackway and enclosure system

A modest assemblage of 161 sherds (2.2kg) derived from features assigned to L80, the largest concentration (848g) associated with rubbish pit G980. Pottery from this pit comprises late medieval reduced wares (32 sherds from 20 vessels: 501g), and also contains six sherds (115g) from a Raeren stoneware jug. The disuse fills of drainage ditches flanking trackway G1885, which was established in Period 6, contained 32 sherds (568g). The presence within these features of 17th- and 18th-century pottery (368g), as well as several post-medieval/modern non-ceramic objects (Table A5.44), suggests prolonged use of the trackway beyond Period 7.

Ceramic building material

Phase 7

Approximately 58% of the CBM derives from features assigned to Phase 7. As in Phase 6, flat roof tiles dominate, although ridge tiles and bricks are better represented, and floor tiles occur for the first time. Modest assemblages weighing from 1kg to 10kg were recovered from most land-use areas. Within L72, the possibility that building G1967 had a tiled roof is suggested by small concentrations of CBM in nearby well G2017 (5kg) and ditch G1978 (4kg). Larger collections derived from refuse deposits within moated enclosure L66 and farmstead L68. The majority of the CBM, however, occurred in relation to farmhouse and dovecot L69 (Table 6.4), particularly in cellar deposits associated with building G2457: these yielded 90.1kg of brick and tile from demolition deposits, including a shaped brick fragment thought to derive from a fireplace. Robber trenches associated with structures, principally outbuilding G2536, yielded 52kg; and 23.9kg derived from the fills of stone-lined drain G2431. Dovecot G2490 and related deposits contained 24kg, suggesting that the structure may have had a tiled roof.

Phase 7b

The bulk of the Phase 7b assemblage derived from features within enclosure system L77 (Table 6.5), associated principally with the brick-and-tile-built grain-drying oven G2202 (20kg). Of variable height, extant walls comprised brick and pitched-tile courses, some heavily mortared. Several examples have been partially vitrified by the heat.

Although no structures were identified in enclosure system L75, tile-rich deposits within enclosure ditches G1283 (9.5kg) and G1317 (2.7kg) may have been

Table 6.4: Phase 7 CBM quantification by land-use area

Land-use area	Description	No.	Wt (g)
L61	Settlement-related activity area	56	4602
L63	Field/enclosure system	25	1046
L64	Dovecot and quarrying	28	3371
L65	Activity related to water management	53	2980
L66	Moated enclosure	389	30,466
L67	Settlement-related activity adjacent to moat L66	108	7273
L68	Field/enclosure system	212	16,197
L69	Farmhouse and dovecot	3489	316,011
L70	Agricultural activity within field/enclosure system L68	18	927
L71	Smallholding and quarrying	21	1549
L72	Enclosure system	86	10,637
L73	Trackway	20	1508
L74	Field/enclosure system	78	4509
Total		**4583**	**401,076**

Table 6.5: Phase 7b CBM quantification by land-use area

Land-use area	Description	No.	Wt (g)
L75	Field/enclosure system	111	13,408
L77	Enclosure system	259	20,218
L79	Quarrying	223	11,566
L80	Trackway and enclosure system	108	8862
Total		**701**	**54,054**

Table 6.6: Comparison of frequency of building materials and fasteners and fittings in the early medieval and late medieval periods at Stratton

Object type	No. Period 6	No. Period 7	Total
Architectural stonework	2	27	29
Window came	1	28	29
Window glass	0	65	65
Mortar	281g	2803g	3084g
Nails	28	145	173
Angle tie	0	1	1
Staple	3	6	9
Door stud	0	3	3
Hinge	0	2	2
Hinge pivot	0	3	3
Padlock	1	2	1
Keyhole plate	1	0	1
Keys (padlock and revolving)	0	6	6

associated with the demolition of the L69 buildings of Phase 7. Material collected from L79 deposits attests the use of brick and flat roof tile, in conjunction with stone, as hardcore to level and stabilise areas of ground (surfaces G3045, G3215 and G3386).

Other artefacts

Stratton was still flourishing during the years AD1350–1550, or at least the earlier part thereof, and hence an increase in the recovery of building materials and related fastenings and fittings might be expected. Comparison with quantities recovered from the earlier medieval period (Period 6), when masonry and glazed residences were generally limited to castles, ecclesiastical buildings and the wealthy elite, shows this hypothesis to be correct (Table 6.6).

Although building materials are more numerous from Period 7, their distribution was heavily focused upon residence L69 (Table 6.7). There are also hints, with the presence of mortar and lead came, that moated enclosure L66 may have contained a glazed stone building, but if so, this must have lain outside of the limits of excavation. This distribution could suggest that the wealth present within the excavated part of Stratton in the late medieval period was focused in L66 and L69. The positioning of the two dovecots, one to the north-west of L66 and one within L69, could be a sign that much of the surrounding area was owned by the residents of L66 and L69. This suggestion is supported by the paucity of structural remains suggestive of a domicile, or any concentration of artefacts suggestive of household activities, in any of the surrounding land-use areas.

Household-related items are limited in quantity and restricted in distribution. As the 14th century witnessed the emergence of the table knife (Cowgill *et al.* 1987: 51), scale-tang knives, most with shoulder plates, have been included here as a household item (Table 6.8). Other household-based activities, such as account reckoning and perhaps tapestry making, are also included. Intrusive finds are evident amongst this assemblage: the coin assemblage from L66 and L80;

Table 6.7: Distribution of building materials and fasteners and fittings in Period 7

	No. Phase 7												No. Phase 7b					
Object type	**L61**	**L63**	**L64**	**L65**	**L66**	**L67**	**L68**	**L69**	**L70**	**L71**	**L73**	**L74**	**L75**	**L76**	**L77**	**L79**	**L80**	**Total**
Architectural stonework	1							24	1	1								27
Window came					8			20										28
Window glass								64					1					65
Mortar								2798g					3g				2g	2803g
Nails	7	5	13	15	3	7	7	58		2	1	1	6	2		13	5	145
Angle tie	1																	1
Staple	1		1		1		1	1								1		6
Door stud								1								2		3
Hinge																	2	2
Hinge pivot			1				1								1			3
Padlock							1	1										2
Keys (padlock and revolving)		2						2								2		6
Total	**10**	**7**	**15**	**15**	**12**	**7**	**10**	**171/2798g**	**1**	**3**	**1**	**1**	**7/3g**	**2**	**1**	**18**	**7/ 2g**	**288/2803g**

Table 6.8: Household-related finds in Period 7 (items in *italics* are intrusive; * items are residual)

	No. Phase 7								No. Phase 7b				
Object type	**L63**	**L64**	**L66**	**L67**	**L68**	**L69**	**L70**	**L74**	**L75**	**L77**	**L79**	**L80**	**Total**
Glass beaker						1							1
Glass flask						1							1
Copper alloy bowl						1					1	1	3
Copper alloy cauldron/skillet			1										1
Glass wine bottle								8				6	14
Glass vessel												2	2
Iron chain												1	1
Iron swivel						1							1
Copper alloy binding										1			1
Copper alloy cistern tap key			1										1
Table(?) knife				1		2	1		1			1	6
Pin beater		1			1		1		1	1			5
Needle case(?)	1												1
Coin	1*		2* + *4*		2*	4				1		1* + *2* + 1	18
Jetton			2			1	1						4
Total	**2**	**1**	**10**	**1**	**3**	**11**	**3**	**8**	**2**	**3**	**1**	**15**	**60**

Table 6.9: Craft-related finds in Period 7

	Phase 7										Phase 7b			
Object type	**L63**	**L64**	**L65**	**L66**	**L67**	**L68**	**L69**	**L70**	**L72**	**L74**	**L77**	**L79**	**L80**	**Total**
Ferrous smithing slag (g)	244		294	43		1907	125	4709	2891	423		187	592	11,415g
Ferrous undiagnostic slag (g)	51	17												68g
Copper alloy waste (g)							25.4				71.4			96.8g
Lead alloy waste (g)	24.1			0.8		189	21.7		158				29	422.6g
Lead alloy off-cut							3	1						4
Hammer					1									1

17th/18th-century wine bottle fragments from L74 and L80; the possible needle case (OA122) from L63; and a bifurcated cistern tap key from L66 (OA93) dating to *c.* AD 1600–1750. There is also some question as to whether the single-ended pin beaters, at this stage presumably limited to tapestry making, were in fact residual from the earlier medieval period: most were not associated with land-use areas that contained any structures, and two were found in pit and ditch fills of what appear to be enclosure systems (i.e. L68 and L75). Other residual elements are evident, for example the 'cigar-shaped' pin beater from L64 and several coins (Table 6.8).

Excluding the possible evidence for tapestry making, craft activities during Period 7 appear to have been restricted to metalworking (Table 6.9). Minor quantities of lead waste and off-cuts were found in seven land-use areas, none suggesting any intensive activity. The largest quantities occurred in land-use areas that contained evidence of structures (L69 and L72), or were immediately adjacent to ones containing structures (L72). This suggests that lead working may have been related to structural fittings, such as gutters, flashing, or caulking to affix iron fittings.

Although ferrous smithing slag was encountered in ten land-use areas, in most cases the quantities do not suggest that ferrous smithing was actually carried out there, plus some of the material is likely to be residual from earlier activity. It does appear, however, that occasional episodes of ferrous smithing occurred in L68 (redeposited in pit G1454), L70 (redeposited in pit G1454), and L72 (adjacent to building G1967).

Claw hammer OA129 from L67 could have been used by a carpenter or farrier, though the recovery of shoeing nails from pits close to where the hammer was found suggests that OA129 was used by the latter. Only building complex L69 had evidence of a possible stable, and it is perhaps more than coincidental that the remains of three horseshoes and a shoeing nail were found within this area. Moated enclosure L66 produced two horseshoes from its ditch, and activity immediately outside of the moated enclosure (L67) yielded a further fragment. These occurrences could suggest the presence of riding horses, and this is supported by a harness pendant (OA192) within the moated enclosure and two composite bells from L69. However, more 'pastoral' find-spots were also in evidence, for example three horseshoes found in the fills of trackside ditches in L80, two from enclosure system L63, and one from a deposit beneath dovecot G3500 in L64. Although seven of the 13 horseshoes cannot be assigned to type, six are of Clark's type 4 (Clark 1995: 88), dating to the later medieval period. The remaining horseshoes lack countersinking around the nail holes, which suggests a similar or later date. Continued agricultural use of enclosure system L66 and trackway L80 into the post-medieval period is indicated by the recovery of five cast crotal or rumbler bells (e.g. OA197).

Agricultural and subsistence-related objects were more in evidence within Period 7 than in earlier periods, but the quantities are not large (Table 6.10). Agricultural hand tools were concentrated in the complex of buildings forming L69, and in moated enclosure L66 and its surrounding area (L65 and L73). Most of the items, though not closely datable, conform to medieval types, but there is evidence of intrusive activity within moated enclosure L66, as evidenced by the presence of a complete post-medieval or modern sickle. A single net sinker of Steane and Foreman's type 2 (1988: 153) was also found in L69. Numerous instances of lava were found within Period 7 deposits, but the vast majority are likely to be residual, as evidenced by OA225 with its 'elbow' handle hole. Most milling is likely to have been centralised by this stage in Stratton's history, and the fragment of a Millstone Grit grindstone from L64 may have originated from such a powered mill. One possible pot quern was identified from L61. Although this may have been used to process grain, pot querns are frequent finds on ecclesiastical and manorial sites

Table 6.10: Subsistence-related finds in Period 7

	Phase 7						Phase 7b	
Object type	**L61**	**L64**	**L65**	**L66**	**L73**	**L69**	**L75**	**Total**
Weed hook						1	1	2
Rake prong			1		1			2
Sickle			1	2				3
Spade shoe						1		1
Quern	1							1
Millstone		1						1
Fishing weight						1		1
Total	**1**	**1**	**2**	**2**	**1**	**3**	**1**	**11**

Table 6.11: Dress-related finds from Period 7 (items in *italics* are intrusive; * items are residual)

	Phase 7											Phase 7b			
Object type	**L63**	**L64**	**L65**	**L66**	**L67**	**L68**	**L69**	**L70**	**L71**	**L72**	**L73**	**L75**	**L79**	**L80**	**Total**
Bead							1								1
Buckle				5						1	1		1	2	10
Buckle plate			1												1
Button						1								2	3
Clasp							1								1
Lace tag		1				1	12		1						15
Pin	1*					1	24	1							27
Shoe patten			1												1
Strap mount												1			1
Strap end					1		2								3
Totals	**1**	**1**	**2**	**5**	**1**	**3**	**40**	**1**	**1**	**1**	**1**	**1**	**1**	**4**	**63**

with ready access to powered mills, and presumably had particular functions such as grinding mustard seed and other spices (Watts 2002: 41–2).

Hunting may be suggested by the presence of arrowheads, with one example each of Jessop's types M5 (OA238), M6 and M7 (OA240) (Jessop 1996). These arrowheads are more often associated with the military, however, due to their armour-piercing capabilities; an activity such as archery practice may therefore account for their presence here. Personal protection is represented by a mid-13th- to late 14th-century dagger quillon (OA241) and a late 15th- to early 16th-century dagger chape (OA242). These weapon-related artefacts were limited in distribution: one M5 arrowhead was found within L67, immediately south of moated enclosure L66; the quillon and an M7 arrowhead came from L68, north of L69; and the dagger chape and M6 arrowhead came from L69 itself. Hunting was a high-status activity during the medieval period, and the concentration of such items in relatively close proximity to L66 and L69 again suggests that the residents had a significant degree of social standing.

The dress-related items are overwhelmingly of copper alloy (92%), with no items made of precious metals. Although this might tend to suggest that the residents were not particularly wealthy, it should be noted that the same pattern was evident in the medieval dress fittings from excavations in London (Egan and Pritchard 1991: 18). Two concentrations of contemporary dress-related items are evident, again in L66 and L69 (Table 6.11). The former produced five buckles, two dating to the mid-12th to 14th century (OA271) and three of later

medieval form (e.g. OA284), while adjacent L67 yielded a late 14th- to 15th-century open-work composite strap end (OA304). In contrast, L69 did not produce any buckles, but it did contain lace tags, wire-wound-headed pins and strap ends (e.g. OA301 and OA306), all dating from the 14th to 15th centuries. The remaining land-use areas contained only one or two contemporary dress items each, giving support to the suggestion that residential activity was focused on L66 and L69.

Period 8 structural narrative

Although documentary evidence does not show any significant decline in the size of Stratton until the start of the 18th century, the contextual evidence suggests that settlement had already begun to retreat from the western side of the main north–south road by the end of the medieval period. Domestic activity was no longer obvious within the excavated areas by Period 8; the northern part had an industrial focus, but the land to the south was largely given over to extensive quarrying (Figure 6.15).

L82

The main feature of L82 was gravel-quarrying, which took place on a much larger scale than had previously been the case. It is likely that the quarrying was no longer solely for subsistence or even local use, with the expansive pit to the south (G1431) probably representing a commercial quarry (Figure 6.15).

Aside from the quarrying, Phase 7b enclosure L75 was remodelled again, possibly with the earlier outer ditch surviving. No new buildings were identified, although wall G2759 at the very edge of the excavated area may have formed part of one. The main house in L69 (Phase 7) may still have been inhabited, however: several small pits were dug nearby, while the deposition of a particularly large amount of pottery and animal bone into ditch G1346 suggests the presence of domestic activity within the fairly immediate vicinity. A large non-ceramic assemblage was recovered from the quarry pits with the aid of a metal detector, in particular G1431, but their very limited excavation makes it impossible to tell whether they were dug while people were still living nearby.

L83

While settlement in the northern part of Stratton to the west of the main road did not continue beyond the medieval period, a few features point towards a low level of continued activity in this area (Figure 6.15). The main concentration of finds came from deposits G3385, overlying Phase 7b surface G3386 (L79): they produced a large finds assemblage that includes tiles and a padlock bolt, which presumably came from the demolition of a nearby building. A pig skeleton was found in pit G3683.

L84

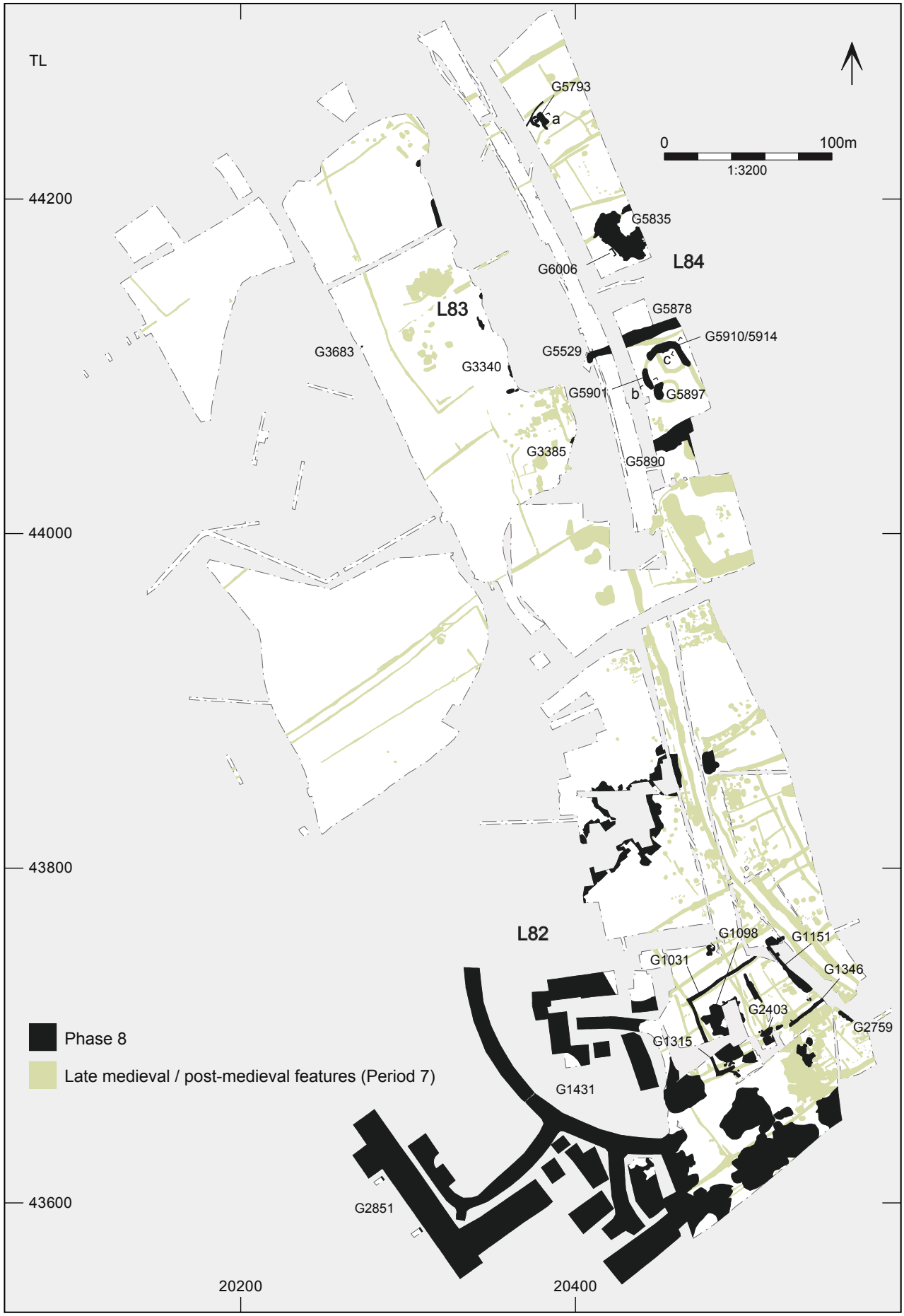
The activity associated with L84 seems to have taken place within a generally watery part of the village. G5835 is thought to have been a large, irregularly shaped pond rather than a quarry pit (Figure 6.15) – it certainly ended up containing standing water – while ditch G5878 had the dimensions of a moat at *c.* 7m wide and 1.1m deep, although there is no photographic or cartographic evidence to support the existence of such a feature here. The Phase 7 ditches to the south of this were partially enlarged and extended, taking on the character of linear ponds (G5901 and G5910/5914; Figure 6.16:b and c), while the creation of pond G5897 suggests that any building that may have been surrounded by the circular Phase 7 enclosure ditch was no longer extant. This area was separated from the earlier moat to the south (which was probably still extant to some degree) by boundary ditch G5890, whose recutting on numerous occasions suggests that it rapidly silted up – the proliferation of water features nearby perhaps indicates that this area was a naturally damp part of Stratton.

Despite the recovery of large amounts of tile, the only hint of building foundations within L84 comes from G6006, a brick structure that may have been an outbuilding but could equally have supported a viewing platform over the nearby pond. However, the numerous leather shoe parts and more than 8kg of ferrous slag that were recovered are characteristic of a cobbler's waste, and it is likely that there was a cobbler's workshop near pond or water-pit G5901: this feature produced most of the leather and slag, and also contained a wooden stool or work bench that shows evidence of its use as a cutting platform. A timber revetment in G5901 also contained two pieces of wood that may have been blades or paddles from a water mill or scutching mill. An adequate water supply was an important requirement for numerous industrial processes, and this part of Stratton may have been an industrial quarter – the vertical sides and flat base of 1m-deep pit G5793 (Figure 6.16:a) suggest that this also had an industrial function.

Period 8 artefacts

Pottery

Features assigned to Period 8 yielded 743 sherds (17.8kg) from 511 vessels, the majority deriving from those in activity area L84 (Table 6.12). The incidence of residual material is considerably higher than in preceding periods, with Anglo-Saxon and medieval wares constituting 6% and 69% of the assemblage respectively.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G3683
G5529
c
G3340
G5901
b
G5897
G3385
G5890
L82
G1098
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Phase 8
Late medieval / post-medieval features (Period 7)

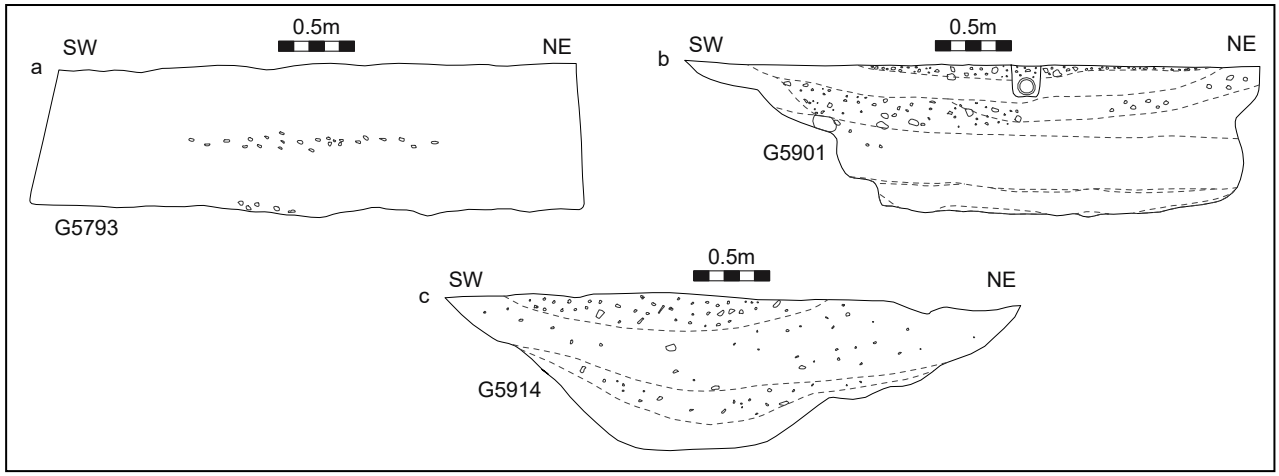


Figure 6.16: Selected section drawings from Period 8 features

Table 6.12: Period 8 pottery quantification

Land-use area	Description	No. sherds	Wt (g)	MSW (g)
L82	Enclosure and quarrying	169	5160	31
L83	Dispersed agricultural activity	30	594	20
L84	Activity related to water management: northern area	26	269	10
L84	Activity related to water management: southern area	518	11,841	23
Total		**743**	**17,864**	

MSW: mean sherd weight

Their concentration within L82 enclosure ditch G1346 and L84 water-pits G5897 and G5901 suggests that they originate from earlier activity, particularly that associated with L53 (Phase 6) and L69 (Phase 7). Iron Age and Roman pottery totals 1%, and mainly derives from L84 pit G5793 and pond G5914.

Some 24% of the Period 8 assemblage comprises 16th–17th-century pottery from a number of local, regional and continental sources, reflecting the increasingly widespread marketing and distribution of products witnessed during the post-medieval period. Eighty-seven vessels are represented by 158 sherds (5.6kg). The small size and fairly random distribution of the post-medieval pottery means the assemblage has no potential for functional or spatial analysis.

The assemblage is dominated by lead-glazed, iron-glazed and slip-decorated earthenware vessels (Table 6.13), the majority of which are products of the pottery industry in south Northamptonshire, centred around the villages of Potterspury, Paulerspury and Yardley Gobion (Mynard 1992: 282). Vessels in the same tradition, manufactured at Brill in Buckinghamshire, also occur. Collectively, these wares total 45% of the assemblage. Large, internally glazed bowls are the most common form, functioning specifically as dairy equipment, and also as general-purpose domestic vessels. Jars have deep lid seatings and were probably used for storage, in conjunction with wooden lids.

Represented in smaller quantities, Cistercian and black wares are likely to derive from kilns at Brill, Potterspury or Ely (D. Hall pers. comm.). White wares, including Tudor Green, originate from production centres in Surrey (Pearce and Vince 1988: 11); English tin-glazed earthenware from either London or Bristol; and later slipwares from Staffordshire, with characteristic combed-and-feathered trailed slip decoration.

Continental imports are well represented within the assemblage, totalling 22%. They mainly comprise German stonewares from various Rhineland production centres. Examples from Frechen are most numerous, and include several Bellarmine forms with face masks and medallions, prevalent in the 17th century. Less common imports are two Type III Martincamp flasks (Hurst *et al.* 1986: 103) from northern France, and two

Figure 6.15 (opposite page): Plan of all excavated remains from Period 8 (post-medieval) overlain on the Period 7 plan

Table 6.13: Post-medieval pottery fabrics

Fabric	Common name	Date range	No. sherds	% Sherd	Wt (g)	MSW (g)
P01	Fine glazed red earthenware	C17	46	29.1	384	74
P02	Coarse glazed red earthenware	C17	15	9.5	434	29
P03	Black-glazed earthenware	C17	3	1.9	41	14
P06	Slip-decorated earthenware	C17	2	1.3	45	23
P09	Surrey white ware	C16–17	3	1.9	30	10
P12	Cistercian ware	C16	5	3.3	18	4
P13	Tudor green	C15–16	7	4.4	46	7
P14	Black ware	C17	13	8.2	157	12
P19	Mottled brown-glazed ware	C18	1	0.6	2	2
P23	Raeren stoneware	C15–16	5	3.3	261	52
P25	Frechen stoneware	C16–17	19	12.0	692	36
P26	Martincamp flasks	C17	9	5.7	189	21
P30	Staffordshire slipware	C18	2	1.3	81	41
P33	Tin-glazed earthenware	Late C16–17	6	3.7	24	4
P36A	Brown salt-glazed stoneware	C17–18	7	4.4	46	7
P44	Lustreware	?mid C16	1	0.6	3	3
P52	Late Brill/Boarstall ware	C17	2	1.3	77	39
P53	Potterspury slipware	Late C16–17	1	0.6	3	3
P57	Midland yellow	C17	1	0.6	31	31
P66	Langerwehe stoneware	C15–16	1	0.6	35	35
P	Non-specific post-medieval	C16–17	9	5.7	100	11
Total			**158**	**100**	**5699**	-

MSW: mean sherd weight

tin-glazed earthenware vessels (an albarello and a flower vase) from the Netherlands. A body sherd from an Andalusian lustre-ware vessel of unusual form (possibly a bowl) derived from the construction trench of wall G2759 (L82). A second sherd deriving from an albarello occurred as an intrusive find in a Period 6 deposit (earthenware and lustre-ware identifications by J.G. Hurst). Vessel forms are summarised in Table 6.14.

Other artefacts

A decline in settlement at Stratton was evident during Period 8, with much of the identified activity focused on quarrying (L82). The Other Artefacts recovered from the various quarry pits suggest that this activity was performed primarily during the 17th century, with a lesser amount continuing into the later 18th century. The finds profile also suggests that a residence was maintained to the east of the quarry area, most likely the main house that was established in L69 during Period 7. The lack of agricultural tools from the environs of L69 may indicate a change in revenue source of the occupants, with quarrying perhaps taking over as the main commercial activity. Residual finds were present within some of the quarry deposits, the Anglo-Saxon-period finds presumably reflecting activity during Phase 4a, while those of a medieval date derived from activity in Periods 6 and 7.

Activity was limited in the rest of the excavated areas to a thin scatter of pits and surfaces in L83, and a series of features relating to water management (L84). No structures were located, but the assemblage of building-related finds associated with external surface G3385 (L83) hints at a building in the vicinity, although the

Table 6.14: Post-medieval forms by vessel count (all periods)

Vessel form				
Fabric	**Bowl**	**Cup / mug / tyg**	**Jug Bellarmine**	**Other**
P01	6	-	1	Jar (1)
P02	4	-	2	
P03	1	-	-	
P06	1	-	-	
P09	-	-	1	
P12	-	2	-	
P13	-	-	-	Lobed cup (2)
P14	-	1	2	
P15	-	-	-	Pipkin (1)
P23	-	2	1	
P25	-	-	4	
P26	-	-	-	Flask (2)
P30	-	-	-	Plate (1)
P33	-	-	-	Albarello (1) Flower vase (1)
P44	1	-	-	Albarello (1)
P66	-	-	-	Flask (1)
P	-	-	1	
Total	**13**	**5**	**12**	**11**
%	**31.7**	**12.2**	**29.3**	**26.8**

absence of domestic and dress-related objects suggests that it was an outbuilding rather than a house (Digital Appendix A5).

A much greater concentration of Other Artefacts was found in the fills of elongated water-pits G5897 and G5901 (L84). These pits contained debris from the clearing of a cobbler's workshop, including an assemblage of shoes; those from G5897 predominantly date to the 15th century, while those from G5901 contain 15th- and earlier 16th-century footwear. This suggests that the pits themselves were dug at the very start of Period 8, or perhaps even a little earlier; their contents are also more likely to relate to activities taking place in the latter part of Period 7 rather than Period 8. Although the purpose of the elongated pits remains uncertain, the presence of a scutching knife, a single flax seed and possible wooden paddles, along with the watery nature of this area, may intimate that flax retting was carried out in the late medieval period. Other objects recovered from them suggest that once the pits went out of use, they provided a convenient means of refuse disposal. The refuse is dominated by work-related items, including the cobbler's waste, ferrous slag, large wooden bowls associated with dairying, and a single spoon bit. The contents do suggest that L84 may have abutted a craft or industrial zone of late medieval Stratton, presumably located to the east.

Chapter 7.
Building forms

On the building plans in this chapter, filled polygons represent unexcavated features or parts thereof, while open polygons indicate the extent that was excavated. Arrows suggest where entrances may have been located.

Sunken-featured buildings (SFBs)

Introduction

A characteristic building type of the early Anglo-Saxon period was the sunken-featured building (SFB) – alternatively known as a sunken-floored building or *grubenhaus*. There has been much debate over the last few decades about whether these structures had sunken or suspended floors, with direct evidence against each argument tending to outweigh that in support of it (Hamerow *et al.* 2011: 147–9). The argument against the theory that SFBs mostly had sunken floors relies on reasons such as the lack of evidence for entrances into the pit; the rarity of *in situ* floor surfaces and occupation deposits; and the impracticality of using the base of the smaller SFB pits as working areas (Tipper 2004: 92–3). However, very little direct evidence has been found to support the existence of suspended floors, and it is unclear why people constructing SFBs would have taken the time and effort to excavate a pit and lay a planked floor for a workshop or storehouse when they apparently did not do so for houses – it is generally accepted that at least the majority of SFBs were not houses (Hamerow 2012: 65).

A third possibility that has gained increasing favour is that SFBs were often used as storage facilities, with the goods stored on the base of the pit (Hamerow 2012: 58). This overcomes most of the objections to the sunken-floored model: no formal entrance would have been required into the pits, nor would evidence of surface wear or floors be expected therein. It should be noted, however, that there is little direct evidence for this (within England, at least – Continental examples of SFBs used as grain stores are more forthcoming), and it is also apparent that some were used for other purposes such as weaving. There is also a problem with the application of this theory specifically to Stratton: SFBs elsewhere are generally regarded as ancillary structures to houses that were constructed using earthfast posts, yet no such structures appear to have been contemporary with the early Anglo-Saxon SFBs. If they were solely used for storage or as workshops, then where did the people using them live? In view of how many buildings constructed using earthfast posts or ground beams have been detected at Stratton, it seem improbable that no trace would have survived of any such buildings to which these SFBs may have been ancillary.

In short, it is likely that these buildings, whose remains differed greatly in size, shape and form, were constructed in a range of different designs and for different purposes (Hamerow 2012: 59). There is little conclusive evidence from any of Stratton's SFBs to indicate whether their floors were sunken or suspended, or indeed whether the pits even had proper floors, but each possibility is lent circumstantial support by a few examples. It is difficult, for instance, to imagine what function the internal stake-holes served in SFBs such as G3163 (Figure 7.1) and G3235 (Figure 7.7), if those buildings had had suspended floors. One might have thought that a suspended floor would have been desirable in G3155 and G3655, constructed as they were above infilled wells (Figure 7.5) – the damp, unconsolidated soil would hardly have provided a good surface even for the floor of just a storehouse – yet a layer of gravel along the base of G3155 suggests that even that had a sunken floor.

Although 21 SFBs are listed at Stratton, this number is only an approximation: not all of those classified as SFBs were conclusively such, while conversely, ploughing may have removed all evidence of further buildings that once existed – several of those that did leave an archaeological trace had pits that were no more than 0.1m deep (Table 7.1). A number of unexcavated pits across the site may also have included a few further examples amongst them: the identification of SFBs prior to excavation was hindered by their general lack of external postholes.

The SFBs identified at Stratton fall generally within the lower end of the normal range of sizes noted by Tipper (2004: 64–5). From evidence based primarily on those at Mucking, West Heslerton and West Stow, he observes a 'strong central tendency for *c.* 4 × 3m', with the remainder falling mostly within the range of 3 × 2m to 5 × 4m. As can be seen from Table 7.1, none of those at Stratton was larger than the dimensions in this broader range, with only G3155 and to a lesser

Figure 7.1 (opposite page): Plans and section drawings of Period 3 SFBs

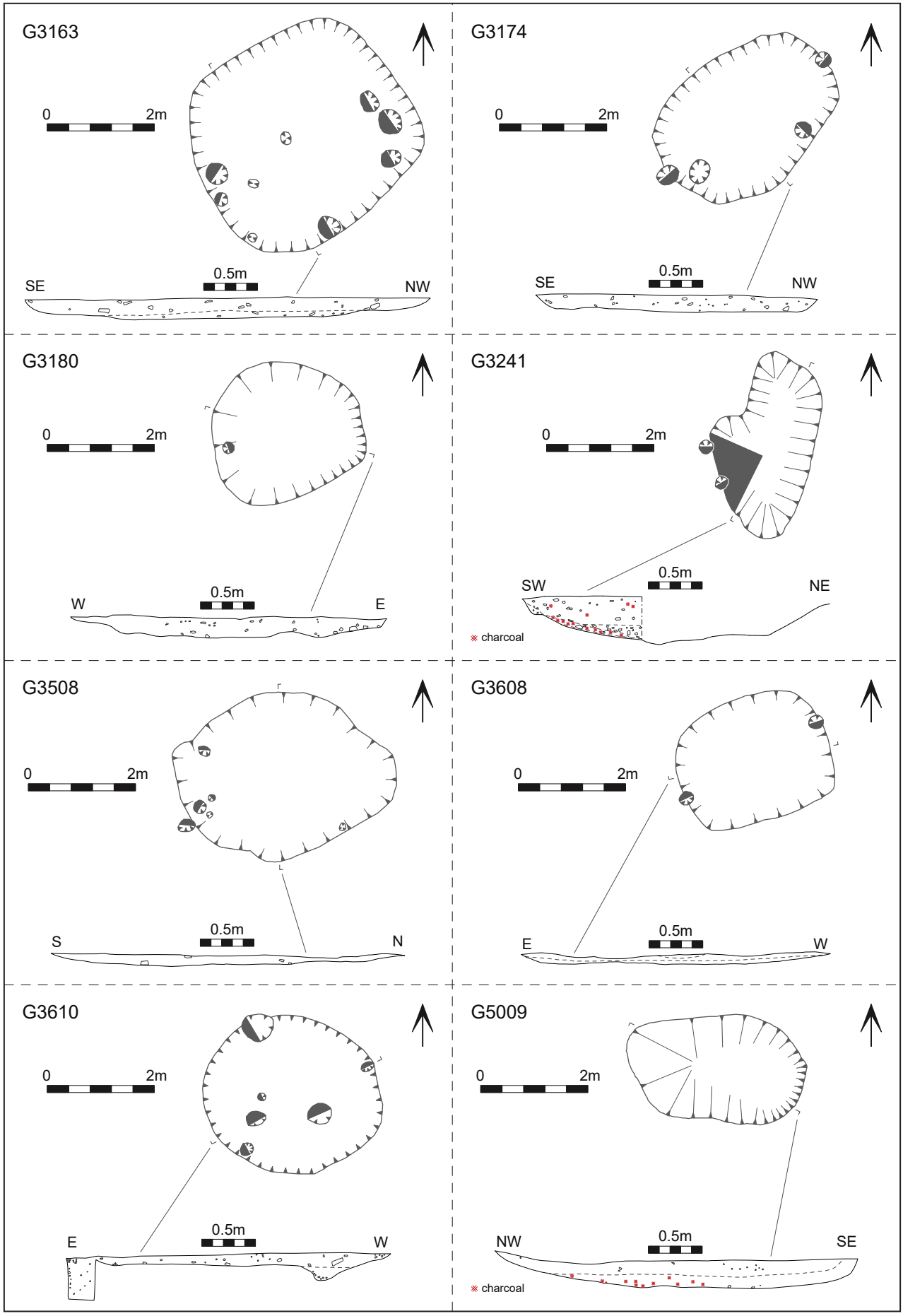

G3163
0
2m
0.5m
SE
NW
G3174
0
2m
0.5m
SE
NW
G3180
0
2m
0.5m
W
E
G3241
0
2m
0.5m
SW
NE
※ charcoal
G3508
0
2m
0.5m
S
N
G3608
0
2m
0.5m
E
W
G3610
0
2m
0.5m
E
W
G5009
0
2m
0.5m
NW
SE
※ charcoal

Table 7.1: Summary of SFB dimensions

Period	Phase	SFB	Area of pit (m)	Depth of pit (mm)	No. of postholes
Early Anglo-Saxon	3	G3163	4.1 3.8	190	9
		G3174	3.6 2.6	190	4
		G3180	2.8 2.6	200	1
		G3241	3.5 1.9	440	2
		G3508	4.1 3.1	100	6
		G3608	2.9 2.3	100	2
		G3610	3.4 2.9	120	6
		G5009	3.4 2.0	290	0
		G5175	3.2 2.0	290	2
		G6014	3.8 3.2	190	2*
Middle Anglo-Saxon	4a	G169	4.1 2.6	400	0*
		G180	3.3 3.2	>720	1*
	4b	G831	2.7 2.7	100	1*
		G840	3.5 3.4	500	0*
		G3155	4.9 3.8	700	3
		G3655	3.4 3.4	300	1*
Late Anglo-Saxon / Saxo-Norman	5	G3200	2.8 1.6	260	0*
		G3235	3.0 2.8	300	8
	5b	G5259	2.9 2.4	180	0*

* additional internal postholes may have existed within unexcavated segments

extent G3163 exceeding the modal dimensions of *c.* 4 × 3m. Tipper also notes that middle Anglo-Saxon SFBs were generally, though not exclusively, larger than early Anglo-Saxon ones (Tipper 2004: 66), yet no such distinction is apparent at Stratton. Indeed, a dog skeleton recovered from the base of one of the largest SFBs, G3163, produced a radiocarbon date of cal. AD 260–540 (Table 3.1), making it possibly the earliest building on site.

Where discernible, most of the early Anglo-Saxon SFBs appear to have been aligned west-south-west to east-north-east. Buildings G3241 and G5009 (if indeed they actually were SFBs) are the only clear exceptions, whereas at least five of the ten (G3163, G3174, G3508, G3608 and G3610) definitely seem to have followed that orientation. This alignment was less pronounced in the later SFBs, or at least less discernibly so: fewer had surviving postholes, and at least four (G3155, G3235, G5259 and G3202) followed a more north-north-west to south-south-east alignment.

Little can conclusively be determined about how the fills of the Stratton SFBs accumulated and whence the material derived. This is due in large part to the shallowness of their pits, most of which were no more than 0.2m deep (Table 7.1). The two or three distinct layers identified as regularly being present within the SFBS at Mucking, West Stow and West Heslerton (Tipper 2004: 99–102) may also have formed in the ones at Stratton, but if so, only the lowest survived truncation by ploughing in most cases. Deeper SFBs such as G3241 (Figure 7.1) and G180 (Figure 7.4) did display evidence of a variety of deposits, but the differences between them were not as marked, and the deposits may have accumulated in the same way as the fills of a rubbish pit – which in the case of G3241 may have been what it was anyway, rather than an SFB. It is also difficult to make comparisons between the fills of different SFBs: most contained some variant of mid-grey-brown sandy silt with differing levels of anthropogenic debris, but their subjective recording by numerous individuals over

the course of several years means that any recorded differences may be artificial.

Detailed micromorphological analysis was carried out on the fills of four SFBs, in an attempt to establish the origin of the material contained within their pits (Digital Appendix A12). Three (G3155, G3235 and G3608) produced similar chemical signatures, with significant levels of burned dung and domestic/industrial waste, although it is uncertain whether this material derived from *in situ* burning or from nearby activities whose waste products were dumped into the pits once the SFBs had been abandoned. Similarly, the analysis demonstrated that trampled deposits were present, but without determining whether they had been generated *in situ* during the lifetime of the building.

Building G5009, however, contained deposits of a different character. Unlike the other three, which were all located within the core of the early–middle Anglo-Saxon settlement, this structure lay at the extreme north-west of the excavated area in an area that seems to have consisted primarily of open fields. Analysis of its lower fill (Figure 7.1) suggests that soil-based daub was used to line the base of the pit, the soil above which was characteristic of trampled deposits within a roofed building. The upper fill seems to represent the insertion of a clay floor on top of the earlier deposits, which in turn was covered by dung-rich topsoil that had been trampled by animals, and which possibly derived from a turf roof. This may indicate that the SFB was constructed in a different style to those in the settlement core, perhaps reflecting lower-status use and its position beyond the margins of the main settlement. Alternatively, the pit may even just have been the result of trampling within a larger structure such as a byre and not an SFB at all, with the rest of the structure lost to ploughing.

Period 3: early Anglo-Saxon

G3163

This was one of the largest SFBs at Stratton (Figure 7.1), and quite possibly the earliest: a dog skeleton recovered from the base of its south-west corner produced a radiocarbon date of cal. AD 260–540 (Table 3.1). The presence of the undisturbed dog skeleton suggests that the fill of the pit accumulated rapidly above the animal, preserving it from scavengers – while the dog may have crawled into a cavity beneath a suspended floor and died there, one would imagine that it would have been removed before it had entered an advanced state of decomposition, making it more likely that the animal was buried there immediately before the pit was backfilled. There was perhaps a delay between the building's demise and the pit's backfill; however,

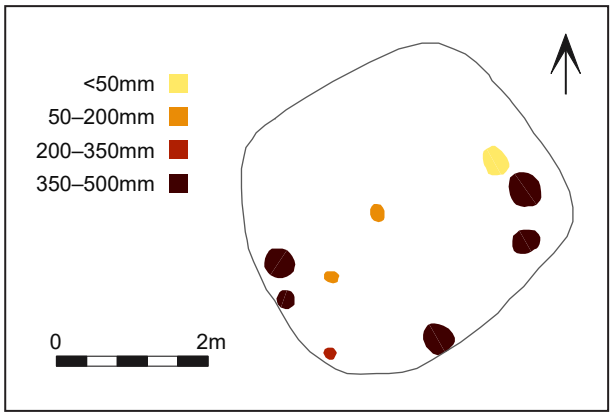


Figure 7.2: Plan of SFB G3163 showing posthole depths

the partial remains of a second dog – which may well have succumbed to scavengers – were found in the north-east corner. The fill of the pit comprised a fairly homogenous dark grey sandy silt, with no apparent vertical differentiation; there was a concentration of charcoal in the upper half of one of the postholes, but charcoal elsewhere was scarce and there is no suggestion that the building burned down.

A very slight depression in the central area of the pit, by no means deep enough to suggest that there was a ledge around the outer edge of the pit (Tipper 2004: 84–6), may have been caused by erosion while it was used as the floor of the building. This theory of a sunken floor is supported by the presence of postholes that cut into it, the four shallowest of which formed a curve that may denote the presence of a screen or internal partition (Figure 7.2). The larger postholes were presumably structural, with gable posts at the east and west ends.

G3174

Gable posts were present at the south-west and north-east ends of G3174 (Figure 7.1), measuring 0.25m and 0.45m deep respectively. The former appears to have been replaced by a post immediately to its east, whose posthole extended 0.55m below the base of the pit; the depth of the fourth posthole, on the south-east side, suggests that it also had a structural function. A mostly homogenous deposit of dark grey-brown sandy loam filled the pit, with enough finds in it to suggest that it may have derived from a nearby midden.

G3180

A single posthole was found in association with this building (Figure 7.1), measuring 0.25m deep and located just within the western side of the pit. A single deposit of dark red-brown silty clay filled the pit.

G3241

The irregular shape of its pit makes the identification of G3241 as an SFB questionable (Figure 7.1). Two shallow postholes were recorded on the western edge of the pit, but it cannot conclusively be stated that the three features were contemporary. If G3241 was indeed an SFB, then it would be reasonable to assume that it had a floor of timber planks suspended over the pit, which in turn would signify that the burnt debris G3242 on the base of the pit was deposited after the building had gone out of use.

Other than the burnt basal deposit, it is possible that the remaining two fills within the pit derived from different sources. The stony lower fill contained no finds other than animal bone, whereas a moderate number of potsherds and residual flints were recovered from the upper fill – this perhaps reflects a difference between use-related accumulation and post-abandonment backfill.

G3508

Although only one gable post survived (Figure 7.1), lying just outside the south-west edge and measuring 0.58m deep, three further ones (0.15–0.28m deep) were present round the inner edge. The one nearest the gable post may have been a replacement for it. Two small postholes were recorded near this possible replacement post, but both were shallow and are perhaps more likely to be the result of over-enthusiastic excavation. The homogenous deposit of mid-grey-brown sandy loam that filled the pit contained a fairly large amount of Anglo-Saxon pottery and animal bone, despite the shallow depth of the deposit.

G3608

This was a two-post SFB (Figure 7.1), with the postholes measuring 0.25–0.30m deep. Very little of the pit had survived plough truncation, but, as with G3508, the deposits that did remain contained a fairly large amount of Anglo-Saxon pottery and animal bone. Micromorphological analysis (Digital Appendix A12) has demonstrated that they also contained significant levels of burned dung and domestic/industrial waste. The mid-grey-brown silty loam that covered the very base of the pit also filled its postholes, strongly suggesting that the pit only began to fill up after the building had been dismantled.

G3610

Whereas the two postholes on the south-west and north-east edges were substantial (0.40m and 0.60m deep respectively) and would have held the two gable posts (Figure 7.1), the other four postholes were much shallower and may have held posts with a less structural function. Homogenous mid-grey-brown sandy loam filled the pit, which contained a moderate amount of Anglo-Saxon pottery and animal bone.

G5009

This building on the north-west edge of the known early Anglo-Saxon settlement was aligned east–west, unlike its contemporaries; no evidence for associated postholes survived (Figure 7.1). The fill of its pit also contained substantially fewer artefacts than those of the SFBs at the centre of the early Anglo-Saxon settlement, although the volume of animal bone recovered was similar. The fill of the pit was subjected to micromorphological analysis, as described above.

G5175

The postholes at either end of this building were *c.* 0.35m deep, and both were located a short distance in from the edge of the pit (Figure 7.3). Even though its pit was one of the deepest of the early Anglo-Saxon SFBs, it produced the smallest finds assemblage, suggesting that this building lay outside the early Anglo-Saxon settlement core.

7.1.2.10 G6014

This building was discovered during trial-trench evaluation of an area of the site that was not subsequently subject to open-area excavation, meaning that less than a quarter of it was excavated (Figure 7.3). The posthole on its north-east side was 0.47m deep and probably held a gable post, while the other was 0.24m deep. Even though little of the pit was excavated, it produced a sufficiently large assemblage of pottery and animal bone to suggest that the early Anglo-Saxon settlement core extended this far to the west.

Period 4: middle Anglo-Saxon

G169 (Phase 4a, L12)

This feature's possible status as an SFB was only recognised during post-excavation analysis, meaning that just a quarter of it was excavated (Figure 7.4). Its fill was also dug out as a single deposit of dark brown sandy silt, although recording of it on site demonstrated several lenses of material in horizontal bands, with a number of burnt stones along the base. Despite the small percentage of the feature that was excavated, a fairly large assemblage of pottery was recovered, along with a large amount of animal bone.

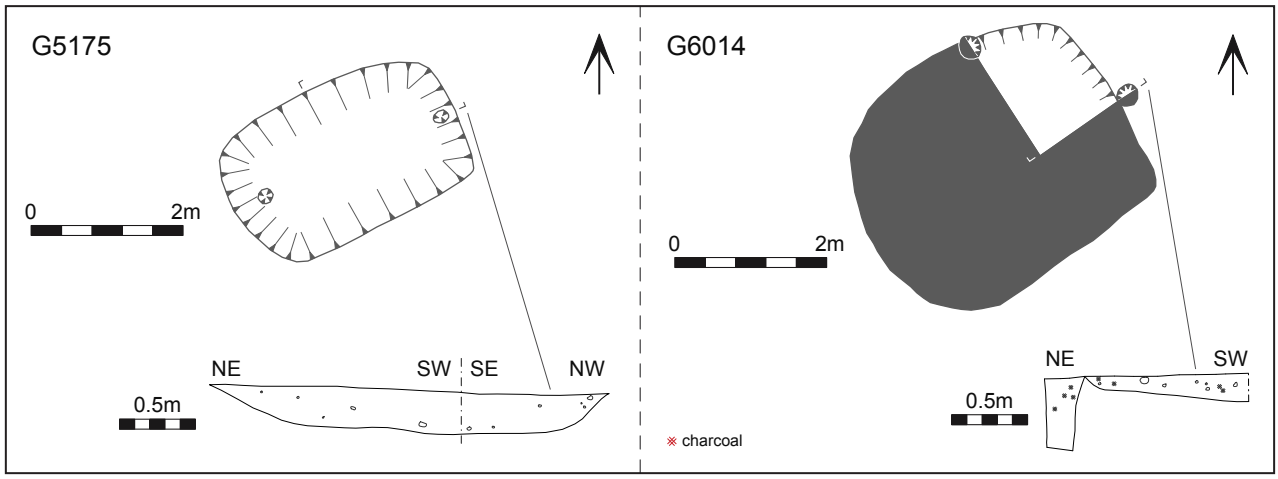


Figure 7.3: Plans and section drawings of Period 3 SFBs

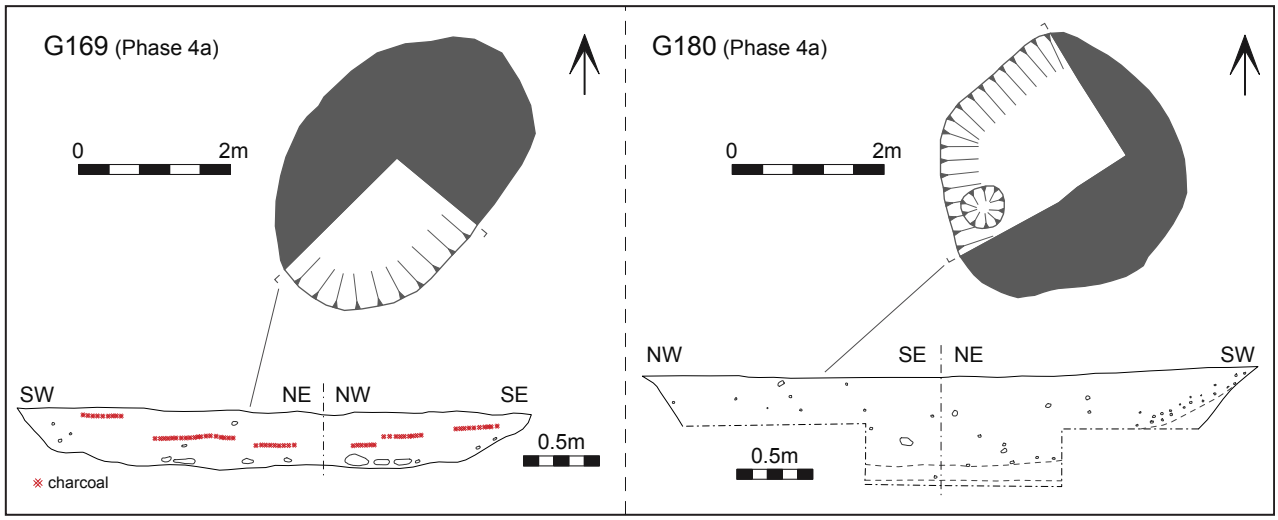


Figure 7.4: Plans and section drawings of Phase 4a SFBs

G180 (Phase 4a, L12)

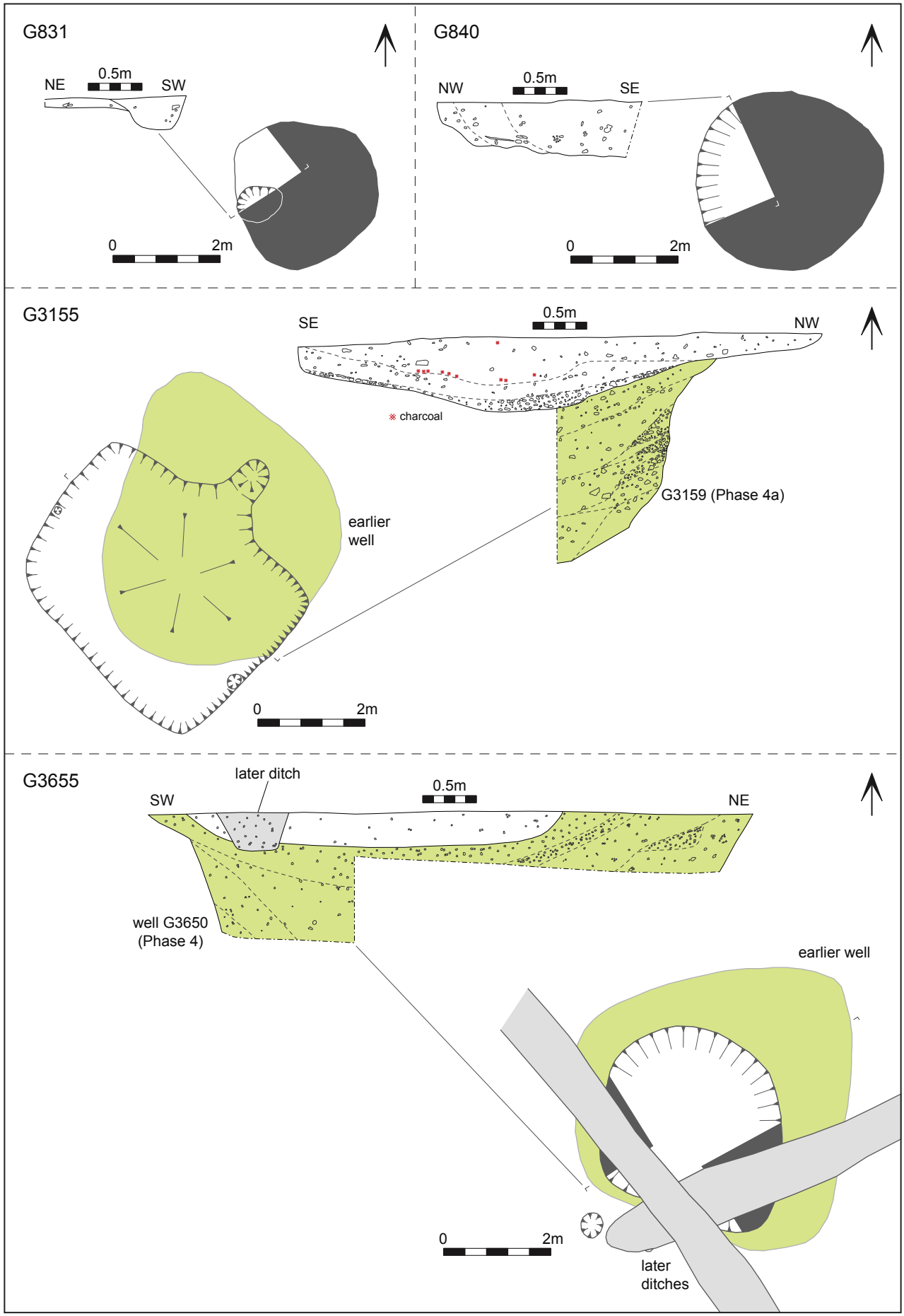
Like G169, this feature was only identified as a possible SFB during post-excavation analysis, largely due to the presence of a posthole just inside its western edge that extended 0.25m below the cut of the pit (Figure 7.4). A range of light-coloured silts and clays filled the pit, which produced only a small assemblage of finds. The base of the pit was not reached: if G180 was indeed an SFB then it was the deepest recorded at Stratton. It may not have been much deeper than G3155, but this is largely because the base of the latter slumped into the backfill of an underlying well; it is possible that G180 was in fact also a well.

G831 and G840 (Phase 4b, L22)

These features were only identified as SFBs during post-excavation analysis, meaning that just a quarter of each was excavated (Figure 7.5). G831, which was very shallow, had a posthole just inside its western edge that was 0.30m deep, whereas no postholes were identified in association with G840, which was one of the deepest SFBs at Stratton. A moderate amount of animal bone and pottery was recovered from the latter, but very few finds came from G831. Both pits were filled with light yellow-brown clay-loam, which was slightly darker nearer the surface of G840, the fills of which appear to have been tipped in from the north.

G3155 (Phase 4b, L16)

This was the largest SFB excavated at Stratton, with a more regular shape to its pit than most (Figure 7.5). The building had two gable posts at the north-west and south-east ends: the posthole that held the former was 0.62m deep, and the one that held the latter 0.48m. Most of the SFB lay over the top of an infilled middle Anglo-


G831
NE
0.5m
SW
0
2m
G840
NW
0.5m
SE
0
2m
G3155
SE
0.5m
NW
charcoal
G3159 (Phase 4a)
earlier
well
0
2m
G3655
later ditch
SW
0.5m
NE
well G3650
(Phase 4)
earlier well
0
2m
later
ditches

Saxon well, and the base of the pit had sagged into the soft, unconsolidated fill of the well to a depth of *c.* 0.4m. A thin layer of sand and gravel had been spread across the base of the pit, presumably to act as a floor: several other SFBs betrayed a hint of this as well, but only in G3155 was the evidence conclusive. Interpretation of the concave slot that extended from the pit's north-east side, however, is far from conclusive: while it appeared to have a shallow posthole at its far end, any post that it held would have protruded only a short distance into the soft backfill of the earlier well, making it unlikely that the post would have been structural. It was perhaps associated with some form of porch, but this is only speculation.

There is some suggestion from micromorphological analysis of the pit's fill (Digital Appendix A12) that the very dark sandy silt deposit immediately on top of the gravel surface accumulated while the building was still standing, or at least while there was something left of it. This theory is perhaps supported by a difference in character between this deposit and the material that overlay it and filled the postholes, which was a slightly lighter version. Analysis of the lower deposit showed that it largely comprised the residual remains of burnt dung and domestic or industrial waste, which tallies with the large quantities of animal bone, pottery and other artefacts such as ferrous smithing slag that were recovered from it.

G3655 (Phase 4b, L16)

The pit of SFB G3655 was dug entirely into the fill of an earlier well (Figure 7.5), although unlike G3155 its base did not sag into the soft underlying deposits, nor was a sand-and-gravel floor inserted. This is tentatively taken as evidence of a suspended floor. Two postholes were identified close to this SFB, but it is uncertain whether either was in fact associated with it. The fill of the pit was homogenous dark grey-brown sandy silt, which contained a moderate assemblage of animal bone and pottery.

Period 5: late Anglo-Saxon / Saxo-Norman

While the size of the early and middle Anglo-Saxon SFBs at Stratton was not exceptional, seven of the 12 dating to the late Anglo-Saxon or even post-Conquest periods do stand out for their diminutive stature – or at least that of their sunken element. These seven (all in Phase 5) had dimensions no greater than 2m long and 1.6m wide: the smallest, G3170, measured just 1.3 × 1.2m (Table 7.2). While there must be some doubt about whether these actually were SFBs, the presence of postholes in all but one of the seven does strongly suggest that they represent some type of structure with a sunken element. In some cases such as G222 it is plausible to imagine the shallow pit as no more than an erosional working hollow (this is equally the case with some larger examples such as G3508), but the regularity in plan of G3170 and in profile of G3139 and G3512, for example, strongly suggest that these pits were dug deliberately. Their function is obscure; they may have served as small workshops, or perhaps as agricultural stores in the same vein as the four-post structures commonly found on prehistoric sites.

Figure 7.5 (opposite page): Plans and section drawings of Phase 4b SFBs

Table 7.2: Summary dimensions of small sunken structures

Period	Phase	SFB	Area of pit (m)	Depth of pit (mm)	No. of postholes
Late Anglo-Saxon / Saxo-Norman	5	G222	1.7 1.3	70	3
		G3139	1.4 1.4	240	2
		G3170	1.3 1.2	110	2
		G3510	2.0 1.4	200	4
		G3512	1.4 1.3	250	5
		G3514	1.3 1.3	200	4
		G3835	1.8 1.6	210	0
	5b	G5270	2.1 1.8	170	0*
Medieval	6	G3202	2.8 1.3	330	1

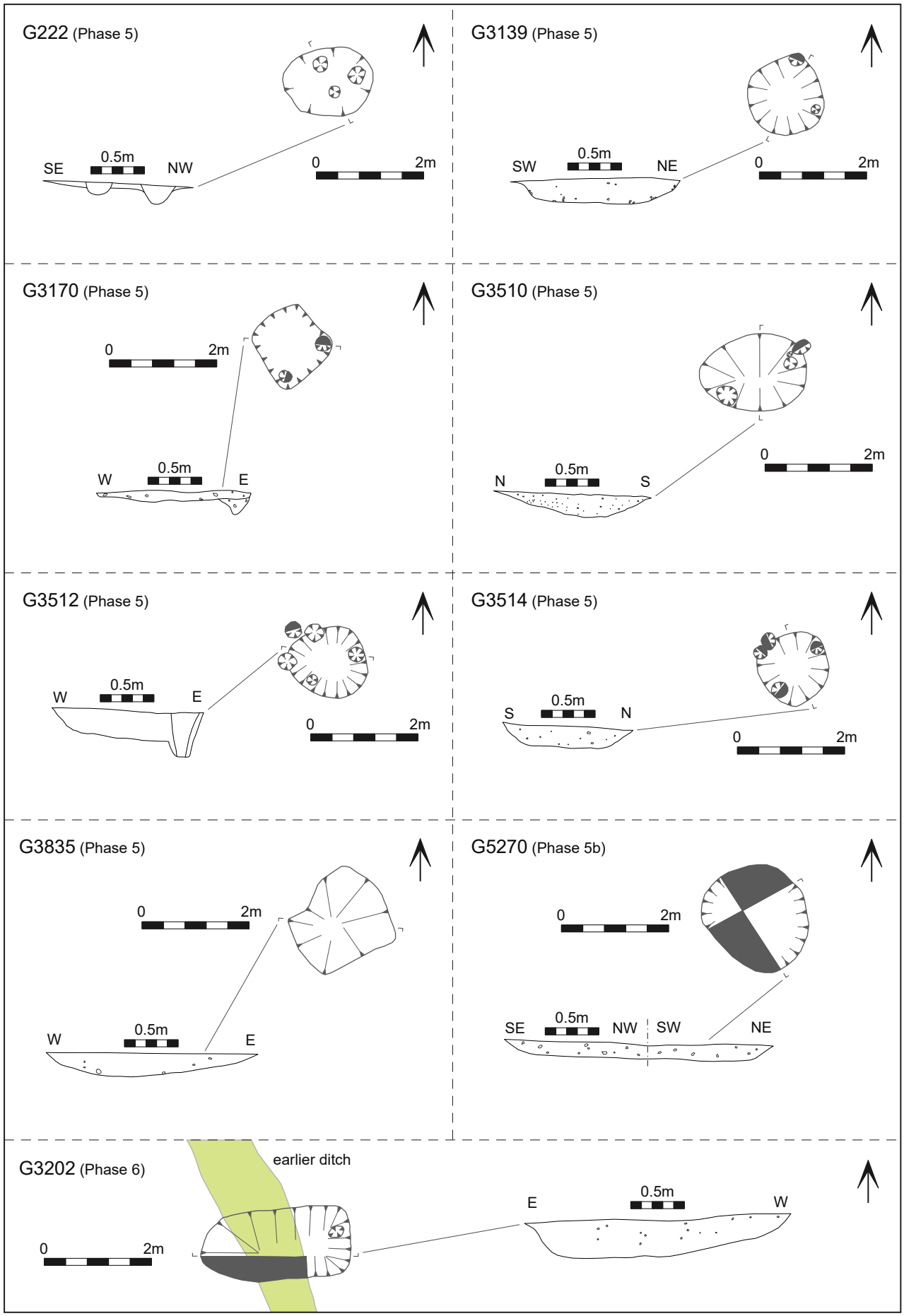
* internal postholes may have existed within unexcavated segments

G222 (Phase 5, L36)

This small, very shallow pit is believed to have been an SFB-type structure (Figure 7.6), albeit too small to have functioned in the same way as conventional SFBs. It contained three postholes dug into its base: these were 0.10–0.25m deep, and the easternmost contained the remnants of post-packing material. No finds were recovered from the brown sandy silt that filled the pit and postholes.

G3139 and G3170 (Phase 5, L37)

These two sub-square pits each had two postholes in adjacent corners (Figure 7.6), which, along with their profiles, is the basis for believing that they were very small sunken structures. The postholes in G3139 were 0.20–0.25m deep, whereas those in G3170 were only half that depth. Both pits were filled with mid-brown-grey silty clay, which in G3139 produced a small amount of pottery and animal bone. The fill of pit G3139 was different to that of its postholes, suggesting that it accumulated while the posts were still in place.


G222 (Phase 5)
SE
0.5m
NW
0
2m
G3139 (Phase 5)
SW
0.5m
NE
0
2m
G3170 (Phase 5)
0
2m
W
0.5m
E
G3510 (Phase 5)
0
2m
N
0.5m
S
G3512 (Phase 5)
W
0.5m
E
0
2m
G3514 (Phase 5)
S
0.5m
N
0
2m
G3835 (Phase 5)
0
2m
W
0.5m
E
G5270 (Phase 5b)
0
2m
SE
0.5m
NW
SW
NE
G3202 (Phase 6)
earlier ditch
0
2m
E
0.5m
W

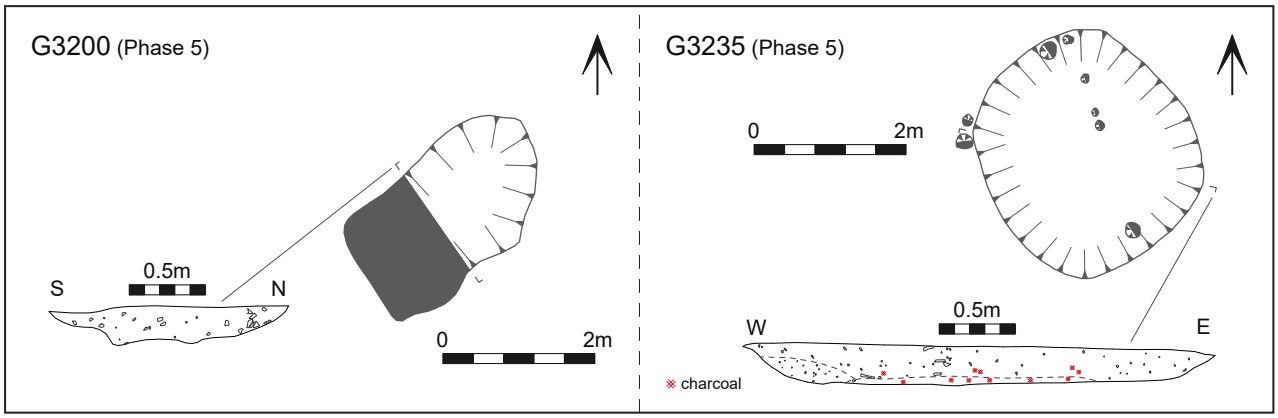


Figure 7.7: Plans and section drawings of Period 5 SFBs

G3200 (Phase 5, L28)

This feature is tentatively identified as a sunken structure, although its irregular shape and profile do raise doubts about this interpretation (Figure 7.7). It was found immediately adjacent to timber building G3194, however, and may have functioned as an ancillary structure. Just a handful of finds were recovered from the mid-grey-brown silty sand that filled the pit, although the presence of numerous flecks and occasional lumps of charcoal suggests that burning took place nearby.

G3235 (Phase 5, L34)

The dimensions of this SFB and the size of its faunal, ceramic and other artefact assemblages are more in keeping with those of the middle Anglo-Saxon SFBs at Stratton, but the presence of significant amounts of medieval pottery in its fill indicates a later date. This is also supported by radiocarbon dates obtained from a partial dog skeleton and a burnt wheat grain recovered from the SFB (Table 4.1). The largest postholes at its north-north-west and south-south-east ends (Figures 7.7 and 7.8), both 0.40–0.50m deep, would have held gable posts, while the roughly north–south line of four much shallower postholes in the northern half of the pit presumably represent an internal division. The two postholes beyond the western edge of the pit were also shallow, and their purpose is unclear. Micromorphological analysis of the pit's mid-red-brown sandy silt fill (Digital Appendix A12) revealed the presence of burnt dung and domestic/industrial waste, which were present within deposits that may have formed at least in part while the buildings still retained its roof.

Figure 7.6 (opposite page): Plans and section drawings of small sunken structures (Periods 5 and 6)

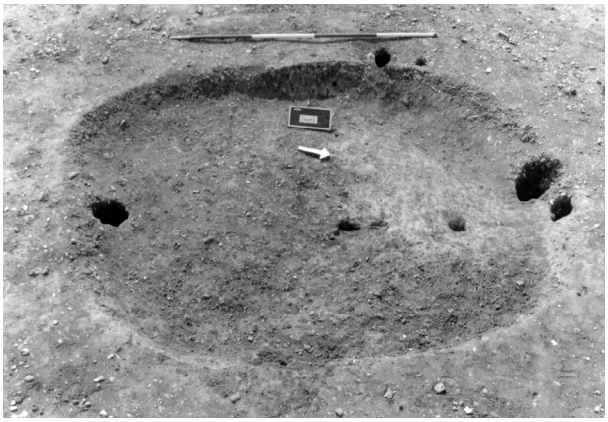


Figure 7.8: SFB G3235, looking south-west

G3510, G3512 and G3514 (Phase 5, L31)

These small SFB-type structures occurred in a line, with less than 10m covering all three. Each had four or five postholes associated with it (Figure 7.6), all of which were 0.11–0.28m deep. The pits differed in profile, but their broad similarity in plan and close proximity strongly suggest that they represent an associated group of structures – probably performing similar functions, although what these may have been is far from clear. All three were filled with mid-grey-brown silty loam, which contained a few pieces of pottery and animal bone as well as a presumably residual, albeit large assemblage of flints.

G3835 (Phase 5, L37)

Pit G3835 lay roughly between possible mini-SFBs G3139 and G3170. It was a similar size and shape in plan (Figure 7.6), and is therefore tentatively posited as the same type of structure, albeit with no associated postholes in this case. A small amount of pottery and animal bone was recovered from its light grey-brown silty fill.

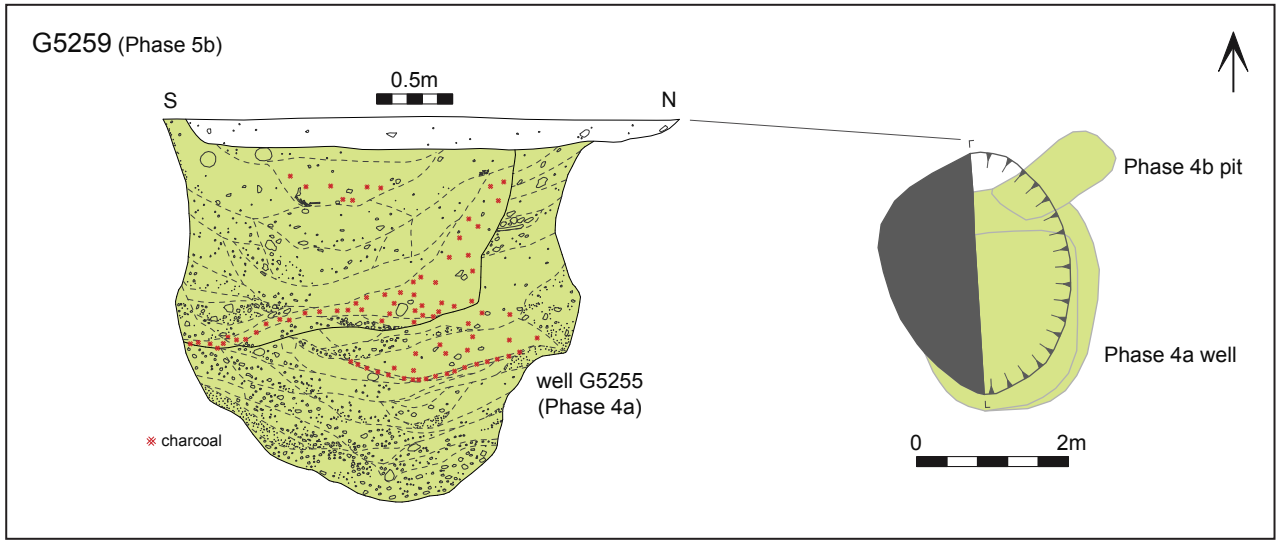


Figure 7.9: Plan and section drawing of Period 5 SFB G5259

G5259 (Phase 5b, L39)

This pit was located almost entirely over an infilled middle Anglo-Saxon well (Figure 7.9), and its identification as an SFB was only made after it had been excavated. No associated postholes survived. The few finds recovered from its dark grey-brown silty fill may have been residual from the middle Anglo-Saxon well and are not reflective of settlement activity in the immediate vicinity, although the building may have been associated with farmstead L38.

G5270 (Phase 5b, L41)

Like SFB G5259, this building had no postholes associated with it (Figure 7.6). It may well have been a workshop or other non-domestic building that was located some distance from the nearest occupation, even though its mid-grey-brown silty fill produced a slightly larger assemblage of finds than that of G5259.

Period 6: Medieval

G3202 (Phase 6, L51)

The pit of this SFB was sub-rectangular and aligned east–west, with a posthole inside its eastern end that extended 0.15m below the base of the pit (Figure 7.6). The building may well have been associated with the late Anglo-Saxon / Saxo-Norman buildings of L28 (Phase 5) – sunken structure G3200 lay immediately west of it – but the volume of medieval pottery recovered from its mid-grey-brown silty fill suggests that it either outlived them or existed at a later date.

Earthfast timber buildings

Introduction

In addition to the SFBs described above, though apparently never in direct association with them, numerous above-ground Anglo-Saxon and later buildings were identified. They were built mostly using lines of earthfast posts set into individual postholes, although post-in-trench construction and beam slots were used for several, with a combination of these techniques evident in a few.

The buildings varied considerably in size: the smallest were barely larger than the SFBs and may have acted as field barns or outbuildings, whereas the largest were *c.* 90m^2 in plan, nearly matching the size of buildings identified elsewhere in England as potentially equating to the 'halls' of Anglo-Saxon literature (Hamerow 2012: 46). Neither middle Anglo-Saxon building G105 (Phase 4b) nor late Anglo-Saxon building G538/540 (Phase 5), however, closely resembles those halls in plan; late Anglo-Saxon building G5108 (Phase 5b) bears a stronger resemblance in respect of having opposing entrances and a slightly convex wall on one side, though it differed by being shorter and wider. The artefact assemblage associated with this building suggests a genuinely higher status than for contemporary houses at Stratton, but it is unclear whether G105 and G538/540 were also of higher status: nothing obvious about their construction methods differs fundamentally from what can be seen in the smaller buildings at Stratton. It is far from clear that building G538/540 was even used solely for domestic purposes: the complexity of its eastern half suggests that this was a living and working area, but the single room that formed its western half may have served as an agricultural store or byre.

Interpretation of the buildings' functions in general is hindered by the restricted level of funding that was initially available for the fieldwork programme, which meant that several of the buildings were not excavated at all, and others attracted only minimal exploration. Few artefacts were therefore recovered from the buildings, whose floor layers had already been completely removed by ploughing anyway, and in most cases there is little evidence beyond their surviving ground plans to suggest how the buildings were used. Our ability to determine some of the finer details about the buildings' construction is similarly compromised: we can often only guess at how thick the timber uprights were, and whether they might have supported a second storey; whether the uneven arrangement of postholes in walls indicates alterations or repairs, or simply a rickety appearance; and whether internal postholes represent partitions, craft activity or the base of a staircase.

The only one of these buildings that can be dated closely is G615, by its assumed relationship with the adjacent cemetery (Figure 3.13) that had its origins in the middle of the 7th century. The generally low level of excavation to which the buildings were exposed means that most are dated only circumstantially, by their shared alignment with nearby boundaries and/or their proximity to nearby pits that may (or may not) have been associated with them. This hinders any attempt to look for chronological changes in construction styles – though it should be noted that few major differences are evident from their structural remains between some of the middle Anglo-Saxon buildings and others that are likely to have been constructed 500 years or more later, a situation that has also been observed elsewhere (Gardiner 2013: 239). Hamerow (2012: 24) observes that there was a diversification of building forms in the late Anglo-Saxon period, with a transition by the 8th and 9th centuries to using foundation trenches rather than individual postholes in more than 75% of buildings; the continued dominance beyond the middle Anglo-Saxon period at Stratton of buildings with posts set into individual postholes therefore suggests a conservative approach to construction techniques.

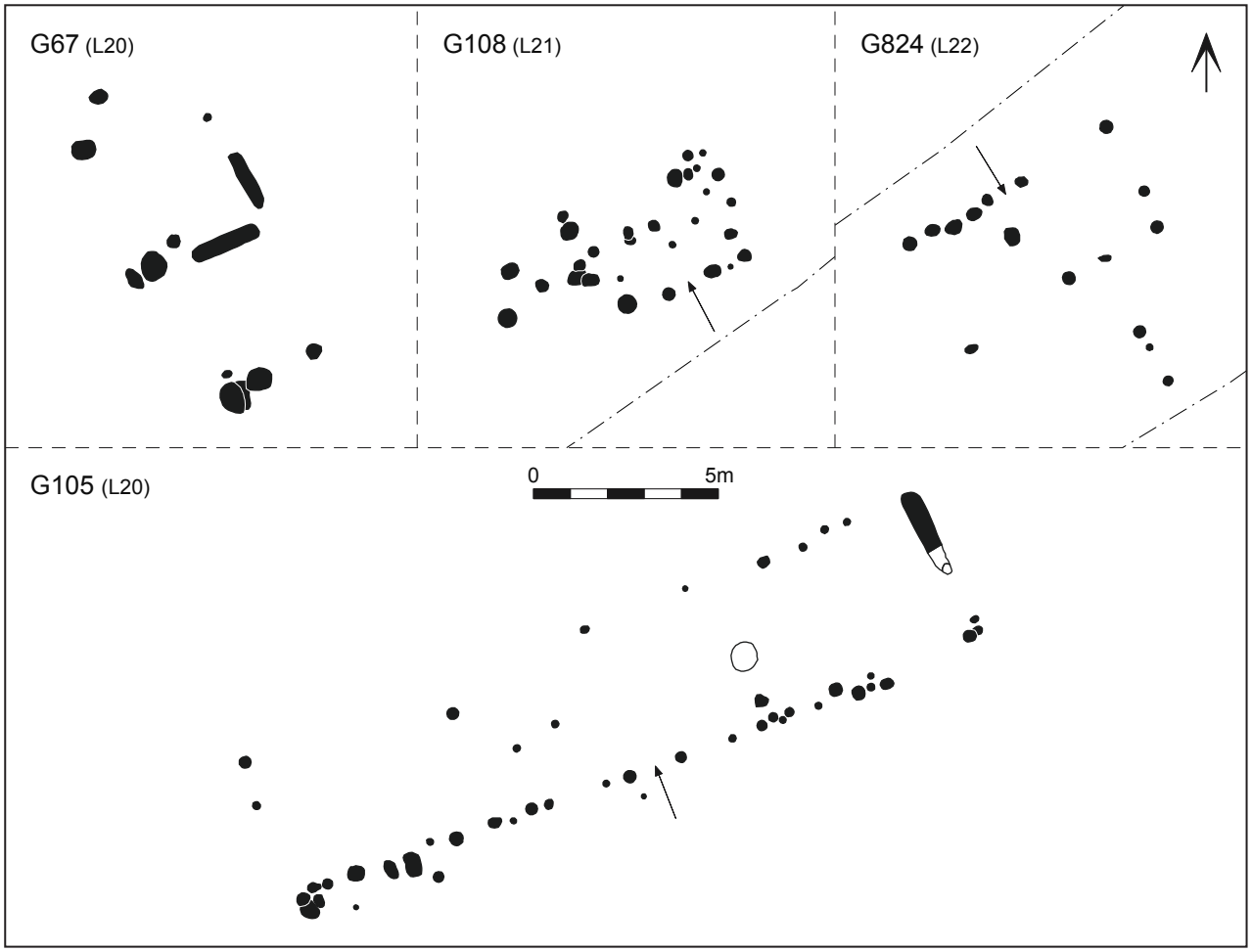


Figure 7.10: Plans of Phase 4b earthfast timber buildings

Period 4: middle Anglo-Saxon

G67 and G105 (Phase 4b, L20)

G105 was one of the largest buildings at Stratton, measuring 20m long and 4.5m wide (Figure 7.10). The density of posts surviving along its southern side, particularly in comparison with the northern side, suggests that this was the front of the building and therefore designed to be the most impressive. There was a roughly central doorway measuring 1.2m wide on this southern side, and possibly one or two others as well, but the spacing of the posts was too irregular to identify further doorways with any confidence. There is unlikely to have been an opposing central doorway – the central posthole on the northern side was perhaps used as a surveyor's aid when setting out the building, an approach that has been suggested on a small number of other sites (Hamerow 2012:30). The fact that the building's width corresponds approximately with the 4.6m perch used for setting out the new enclosure system in Phase 4b may be a further indication that a surveyor was involved with the building's construction: the house appears to have been set out on the grid that was used, lying in turn approximately one perch from the enclosure boundary to the south.

Some evidence of repair to building G105 was apparent where posts had been replaced, but it is unclear whether the uneven distribution of posts along the southern side was due to further repairs or strengthening, or whether some had held scaffolding. Only a few postholes were recorded inside the building and there was no evidence of partitioning, although this is likely to have occurred. The significance of the steep-sided pit in the eastern half of the building, which was 0.25m deep, is unclear, but one possible interpretation is that living space was restricted to the western half of the building, with the eastern half used for storage. It is also unclear why a post-in-trench construction technique was used for the building's eastern wall while earthfast posts were used elsewhere, although at only 80mm deep it is possible that a similar slot once existed elsewhere along the walls but did not survive.

G67 is likely to have been an outbuilding to G105, lying perpendicular to it at a distance of 10m. The building was probably 8m long and 4m wide and appears to have had two rooms of roughly equal size, but its remains were too irregular to determine much more about it. No doorways could conclusively be identified and the reason behind the difference in construction techniques is unclear, albeit similar to that observed in G105.

G108 (Phase 4b, L21)

Enough postholes were clustered in a sufficiently regular arrangement within G108 to indicate the presence of a building (Figure 7.10), but its precise extent and layout are elusive. On the assumption that the westernmost group of postholes related to external structures, then a roughly square building measuring 4.0m by 3.5m begins to emerge in plan – a shallow apse can even be postulated occupying most of the building's eastern wall. The doorway was presumably central to the southern side, though this assertion relies more on the lack of a plausible alternative than on positive evidence. Most of the internal postholes are likely not to have been contemporary with the building, although the existence of a partition or screen on a roughly west-south-west to east-north-east alignment cannot be ruled out, while some of the postholes may have held scaffolding. It is unclear whether this was a dwelling, or just an outbuilding attached to a larger house that lay in the unexcavated area to the south.

Figure 7.11: Mortuary structure and cemetery L9, looking east

G615 (Phase 4a, L9)

While this building appears unremarkable in isolation – a single-roomed structure of earthfast posts that was roughly 8m long and 5m wide – its juxtaposition to a cemetery raises the possibility that it was an associated mortuary structure. Indeed, there even appears to have been a path through the cemetery leading directly to the building (Figures 3.13 and 7.11). Few clues can be gleaned from the remains of the building itself, however, not least because post-medieval quarrying

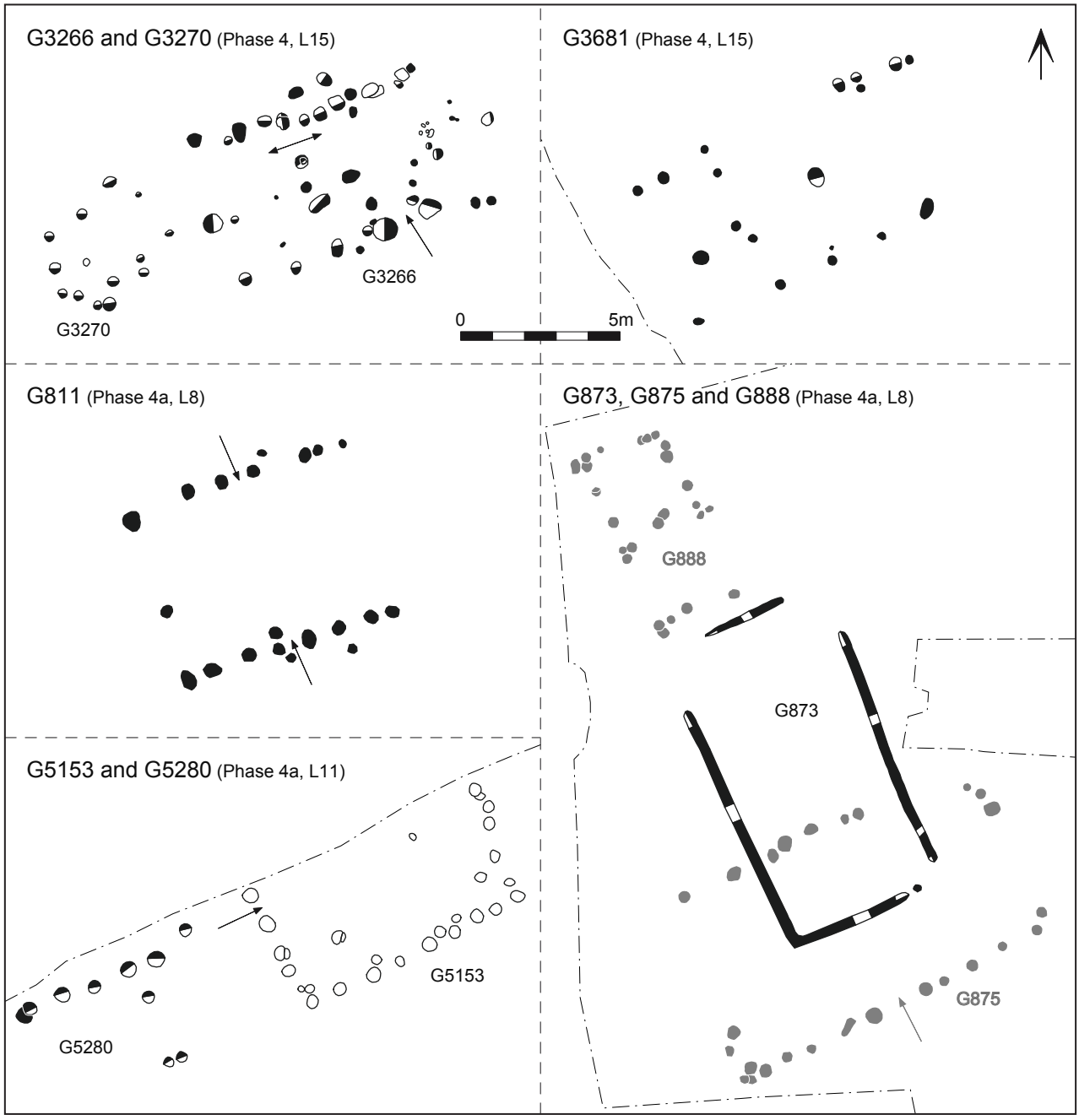


Figure 7.12: Plans of Phase 4/4a earthfast timber buildings

had cut through most of the building's western end. No doorway was obvious, although this could have been in the area affected by quarrying. The only internal features evident were three postholes, one of which had had its post replaced (as had at least three in the outer wall), but it is unknown precisely to what these features related.

G811 (Phase 4a, L8)

Measuring 7.5m long and 6.0m wide (Figure 7.12), this single-roomed building appears to have had load-bearing walls on only its northern and southern sides. A roughly central posthole was present at its west end, but no trace survived of its eastern wall, assuming that the building was indeed enclosed on all four sides. No obvious candidates for doorways are evident from the arrangement of postholes, though it may have had opposing entrances located centrally in its southern and northern walls. The two postholes adjacent to the possible southern entrance may have been associated with some sort of porch structure, although they could equally have been associated with scaffolding, like the other two postholes that were out of line with the walls.

G824 (Phase 4b, L22)

This was a rectangular building measuring 6.5m long and 3.5m wide, constructed using earthfast posts (Figure 7.10). It appears to have had a doorway in the middle of its northern wall, although the irregular spacing of the building's postholes makes this slightly uncertain. The single internal posthole may have been related to this doorway. The three postholes in a line to the south of the building probably formed part of a fence that continued into the unexcavated area, suggesting that the building was tied into an adjacent enclosure.

G873, G875 and G888 (Phase 4a, L8)

Building G875 was 11.5m long and 6.5m wide, possibly narrowing towards its eastern end, and appears to have consisted of a single room (Figure 7.12). Its southern wall was the most clearly defined, with a 1.3m wide central doorway; this is likely to have been the front of the building and was therefore designed to be the most impressive, with the remainder of the building constituting a less impressive edifice. Paired posts appear to have been used at each corner, while the presence of three external postholes at the south-west corner suggests that repairs or strengthening work were undertaken there.

Building G888 was perpendicular to G875 and much smaller, measuring 6.5m long and 3m wide. It is likely to have been an outbuilding – probably to G875, as both were constructed using earthfast posts, and a number of other postholes between the two (Figure 3.6) may have belonged to related structures, although G888 could equally have related to the later building G873. The two central postholes may represent a partition into two roughly square rooms; the greater proliferation of postholes defining the northern half of the building's walls does suggest that the two halves perhaps had different functions, with less structural support required for the southern half. It is also apparent, however, that repairs were made to the northern half of the building, so it is unclear how many of the postholes were contemporaneous. There are several candidates for where the entrance(s) into this building may have been located, but none that is conclusive.

Building G873 was 10.5m long and 5.5–6.0m wide and seems likely to have been a direct replacement for G875, albeit oriented on a perpendicular alignment and employing a different construction technique. The site records are equivocal, but the building appears to have been constructed using a post-in-trench method. Ploughing seems to have removed parts of this trench – the apparently isolated posthole near the building's south-east corner may in fact once have been located within a trench – and the gaps at three of the corners are unlikely to be indicative of entrances.

G3266 and G3270 (Phase 4, L15)

The mass of postholes associated with building G3266 makes it difficult to discern its layout, but assuming that the two postholes located centrally at the east and west ends were integral to the building's structure, its overall dimensions were roughly 10m long and 5m wide (Figure 7.12). The building appears to have been partitioned into two rooms, with the eastern one approximately twice the size of the western room. Two large postholes that formed part of the southern wall are likely to have held doorposts, providing a 0.8m wide entrance from outside the building into the eastern room; the point of access into the western room is less easily discernible, but there may have been an internal doorway leading from the eastern room immediately adjacent to the building's northern wall.

Although the evidence is far from conclusive, there is a reasonable chance that building G3266 had a second storey. There were two pairs of postholes that may have held the posts for two staircases or ladders: one internal pair in the south-west corner of the eastern room, parallel with the partition wall; and an external pair parallel with the northern wall. It is unclear whether the putative second storey extended along the whole length of the building, but the slightly more substantial nature of the postholes defining the eastern room, together with the location of the staircases or ladders, perhaps indicates that only this end of the building had an upper floor.

The wealth of postholes that obscures the building's overall layout is due to two other factors: some of the postholes along the line of the north and south walls seem to have been replacements for earlier posts, pointing towards a degree of structural repair; and some relate to the activities that took place within the building. Precisely what these activities may have been is unclear, but the south-east corner of the building appears to have been partitioned, while the smaller postholes (or perhaps stake-holes) may have related to craft activities such as weaving, rather than being structural.

Building G3270 was a less substantial structure that is likely to have served as an outhouse to G3266, measuring just 4m long and *c.* 3m wide. It appears to have been constructed in a broadly similar manner to G3266, with a central posthole at either short end, but it was impossible to tell whether all of these postholes were contemporary with the building. There were no conclusive indications of where its entrance may have been.

Figure 7.13: Building G5153, looking south-west

G3681 (Phase 4, L15)

This building's external dimensions were at least 8.5m × 5.0m (Figure 7.12). It may have extended further west into the unexcavated area, although this is considered unlikely; the building's eastern end is also a little uncertain, although the two postholes at the eastern end of the north wall probably related to an external structure such as a veranda rather than representing a continuation of the wall. This suggests that the building consisted of two rooms, the eastern one approximately twice the size of the western one, as was the case with G3266. The entrance to this larger room was through the southern wall, but it is unclear whether the door was central to the room or to the building – though if the former, then this might suggest that the western room was seen as an annexe rather than a division of the main building, as symmetry seems to have been an important consideration in early–middle Anglo-Saxon buildings (Hamerow 2012: 138). It is unclear how the western room was entered: with no clear difference in size between the postholes there are several potential doorways, both from the outside and from the other room.

The regular spacing of the postholes in the southern wall suggests that this was seen as the front of the building: the walls at the sides and back of the building were less visually important and were therefore less substantial, helping to explain why they were constructed largely in a manner that left no archaeological trace. There is little evidence of the building's function, but the presence of a posthole in the centre of the eastern room – and also one roughly in the centre of the western room – could indicate a cultic function: elsewhere, similar square structures and annexes with a central posthole have been interpreted as representing domestic shrines (Hamerow 2011: 137).

G5153 and G5280 (Phase 4a, L11)

Only part of building G5153 lay within the excavated area (Figure 7.12 and 7.13), though enough of it was revealed to extrapolate the building's overall dimensions with a reasonable degree of confidence. Its eastern side appears to have included a shallow apse, protruding just 0.5m from the line of the wall; this opposed a probable doorway into the building on the western side, represented by the two postholes closest to the limit of excavation. If the apse and doorway were


G3194, G3196, G3208, G3244 and G3822 (Phase 5, L28)
G3244
G3822
0
5m
G3196
G3194
G3208
G538 and G540 (L33)
G538
G540

in the centre of their respective walls, this gives the building overall dimensions of 8m long (8.5m including the apse) and 7m wide. Repairs were also evident to the eastern and western walls; the three postholes of the southern wall that were out of line with the others may also represent repairs, though they may have held additional posts to strengthen the wall, or perhaps scaffolding that was used during construction of the building.

Too little of G5280 was revealed within the excavated area to say much about it. It might represent an annexe to the main building, or a separate outbuilding; yet it could equally have been as insubstantial a structure as a fence.

Period 5: late Anglo-Saxon / Saxo-Norman

G538 and G540 (Phase 5, L33)

This is likely to have been the largest of the timber buildings within the excavated area at Stratton, measuring about 20.5m long and 4.5m wide (Figure 7.14), although there is a certain element of doubt about this. There is a possibility that the western half G540, with fewer postholes defining its perimeter and no evidence of internal partitions, was in fact an enclosed, unroofed yard with a small annexe to the north. However, the presence of two pairs of opposing cruck posts spaced at even intervals along the length of this area gave this half a greater structural regularity than that of G538 to the east. This makes it more likely that G540 represents a large room with a floor area of 10.5m by 4.5m, whereas the eastern half of the building was partitioned into two or more rooms. The structure to the north may have been a lean-to, perhaps only accessible from the outside.

While the complexity of the building's eastern half G538 is readily apparent, its interpretation is largely speculative. The focal point appears to have been the shallow, roughly square pit near its centre, although its function is unclear – it may have been a hearth, but its fill showed no obvious signs of burning. Opposite this pit lay a doorway in the northern wall, while immediately behind it was a structural slot which perhaps held a screen or a bench. This atrial area led in turn into what appears to have been two separate rooms: a small one to the west, from which it may have been possible to access G540; and a larger, irregularly shaped room to the east that was separated from the building's central area by two parallel lines of posts. The significance of these two parallel lines is unclear: it seems unlikely that one wall was a replacement for the other, as the posts of an internal wall should have survived better than external posts, but it is hard to see how they would have functioned if they were contemporaneous. The reason behind the irregularity in shape of the eastern room is also difficult to see, but it was paralleled in contemporary building G617 and also Phase 6 building G1678 (see Figure 7.18).

G570 (Phase 5, L33)

Assuming that the postholes in G570 did in fact define the outline of an irregularly shaped building, then the structure in question was 6m long and 3–4m wide (Figure 7.15). The structural slot is likely to have held a screen, separating off a small area at the building's eastern end. One of the postholes at the northern end of this screen contained what appeared to be the remains of a post that had been burnt *in situ*: this could indicate that the building burned down, although more widespread evidence of fire damage might have been expected. Several repairs to the building were evident, in particular at the western end where the replacement northern post was considerably more substantial than any of the others.

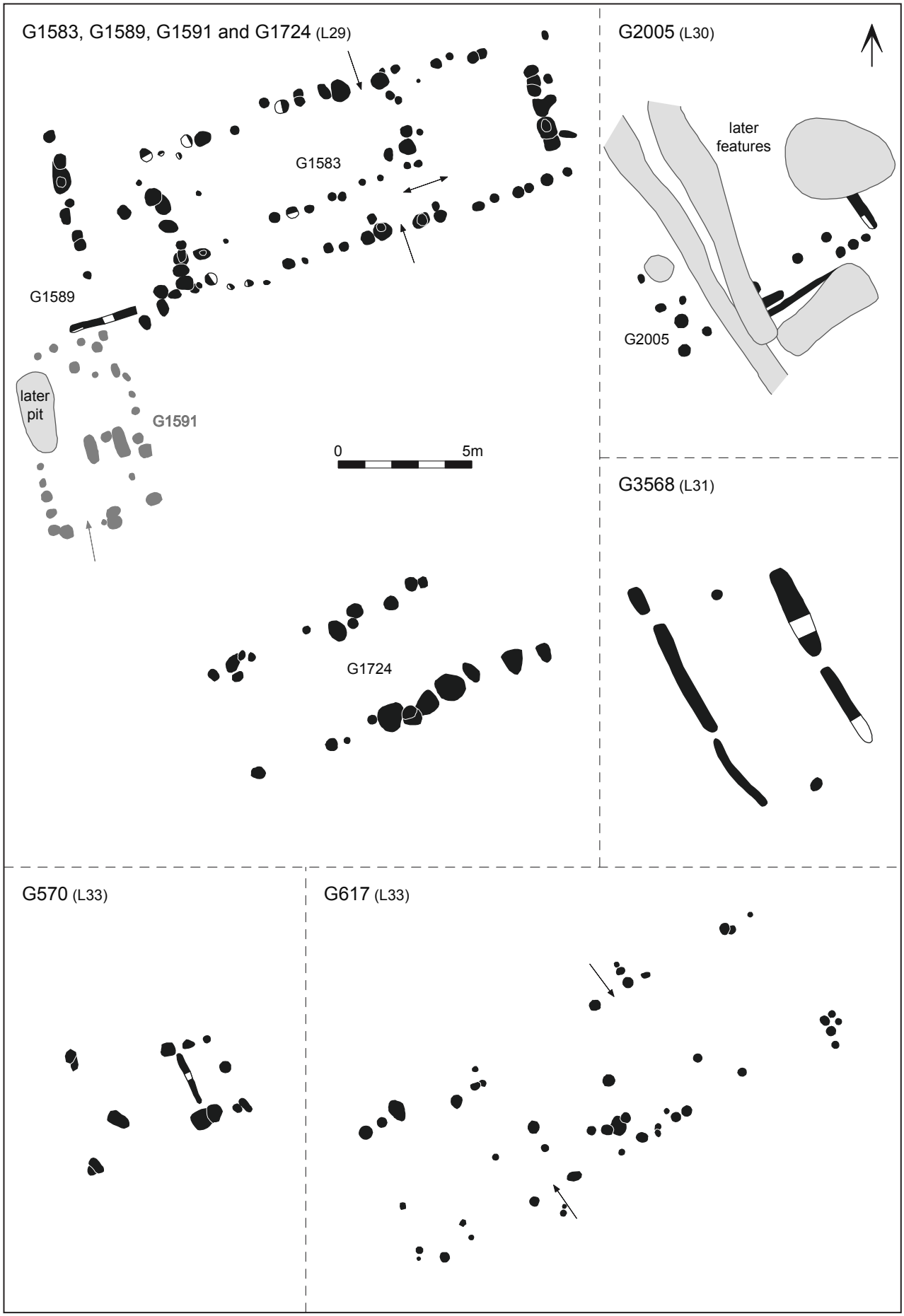
G617 (Phase 5, L33)

Building G617 was 17.0m long and 5.5m wide (Figure 7.15), located just over 10m east of building G538/540 (Figure 7.14). The two buildings are likely to have been associated, either through common ownership or perhaps with one as a replacement for the other: this can be seen from the similarity in plan between G617 and G538.

Just as G617 was the larger building, so its irregularly shaped eastern room was longer than the corresponding one in G538. Postholes clustered around the outside of this room may have related to the use of scaffolding, yet the pair to the north and the distinctive cluster of four around the southern corner are perhaps indicative of buttresses or other forms of strengthening support. There was probably a doorway in the north-west corner of this room that led to the outside; access may well also have been possible into the central room, as in building G538, but there was no clear evidence for it here.

The central room or area in building G617 splayed out towards the north. There was little indication of internal features, but a cluster of postholes in its south-east corner could conceivably represent the location of a ladder to an upper storey. The western room also

Figure 7.14 (opposite page): Plans of Phase 5 earthfast timber buildings


G1583, G1589, G1591 and G1724 (L29)
G1583
G1589
later pit
G1591
G1724
0
5m
G2005 (L30)
later features
G2005
G3568 (L31)
G570 (L33)
G617 (L33)

contained at least two internal postholes, but these were less substantial and are likely to have held non-structural posts or stakes. It is possible that there was a doorway to the outside in the south-east corner of the room, but the spacing of the postholes along the building's southern wall was too irregular to be certain of this.

G1583, G1589, G1591 and G1724 (Phase 5, L29)

G1583 was one of the largest and also one of the more complex buildings at Stratton, consisting of at least two rooms and a corridor (Figure 7.15). It is possible that G1589 was also originally an integral part of the house, before access to it from the corridor was blocked off and the overall building shortened from 18.5m long to *c.* 15m, but it is more likely to have been a lean-to structure. The building was approximately 6m wide, increasing slightly in the middle where the walls bowed out.

Access into building G1583 from outside seems to have been through opposing doorways in the two longest walls, though there is no evidence of a passage linking them. The western room could be entered either from outside or from the corridor, whereas the eastern room was probably only accessible from the corridor.

The lack of a single, regular line of postholes defining each of the walls of G1583 is probably due to the insertion of replacement posts in order to repair the building, although some of the postholes that were out of line may have held scaffolding. Earthfast posts were used throughout the building except at the southern end of the probable lean-to G1589, where a ground beam seems to have been preferred.

Building G1591 is likely to have been an outbuilding to G1583, positioned on a perpendicular alignment. It was 7.5m long and up to 4.5m wide, though its width tapered to perhaps less than 3.5m at its northern end. The building's entrance was probably at its south-west corner, possibly accompanied by a shallow porch.

Although a later pit destroyed the remains of building G1591's north-west corner, the difficulties involved with interpreting the building's internal configuration relate primarily to its eastern half. There were two short, parallel slots near the centre of the building – did these hold a ladder to enable access to an upper floor? The postholes in the southern half of the building were generally more substantial than those in the northern half, which might point towards a second storey that was confined to just the southern half – perhaps a hay loft. There were also four postholes inside the building's north-east corner that may have related to some sort of internal structure, though exactly what is unclear.

A second outbuilding, G1724, lay further south on a parallel alignment with the main building G1583. It was at least 12m long and 5m wide; it may have continued further to the east, but visibility in this area had been obscured by the presence of trial trenches. The building is most likely to have been a barn. It may have had a doorway at the western end of its southern side, but its postholes were too irregularly spaced and sized to be certain.

G2005 (Phase 5, L30)

Building G2005 was a structure of uncertain dimensions and form (Figure 7.15), constructed using a mixture of earthfast posts and either ground beams or posts within a trench (too little was excavated of the latter features to determine which). The building was more than 5m long and at least 2m wide, but truncation by later features and the absence of any evidence for the building's northern wall preclude any certainty with regard to its layout. Assuming a degree of symmetry in its design, however, the line of three postholes to the east perhaps corresponded with the short structural slot to the west, giving the building an overall length of 6.5m. The group of postholes to the west is more likely to have belonged to some sort of freestanding external structure than to have been part of the main building – the cluster of five could have supported a raised structure such as a granary, measuring *c.* 2m by 1.5m.

G3194 and G3196 (Phase 5, L28)

Two lines of postholes in G3194 covered an area 4.5m long and 2.5m wide (Figure 7.14), and represent the remains of a building. Beyond this, however, interpretation of G3194 becomes somewhat problematic.

The shallow gully to the south resembles a trench for a ground beam, giving G3194 the semblance of a miniature version of the 'narrow aisled' halls that have been identified elsewhere from the 10th century, whose load-bearing posts were placed inside the building in order to protect them from the elements (Hamerow 2011: 143, figure 9.9). A roughly perpendicular gully was also present to the east – yet no such feature was present to the north or west, even though variations in the depth of the eastern gully suggest that plough truncation had been less severe to the north. The eastern gully's presence here may even have been entirely coincidental to the building: it could feasibly have belonged to the assortment of medieval ditches in L45 (Phase 6a). The gully to the south was perhaps

Figure 7.15 (opposite page): Plans of Phase 5 earthfast timber buildings

for drainage, designed to catch water running off the roof – yet no such feature was identified in association with any of the other buildings at Stratton, nor is this a common feature of Anglo-Saxon sites elsewhere. A drainage gully here would also have impeded access into the building: if the postholes defined the outline of the building, then the most likely location for a doorway was at the eastern end of the southern wall.

Though of a different construction to its neighbour G3194, building G3196 also presents an array of uncertainties with regard to its size and form. Its south-east corner was clearly defined: ground beams appear to have been used here, as the L-shaped gully in question had a broad, flat base and steep sides. The two pits at the eastern end of the beam slot, which were 0.75–1.1m wide and up to 0.3m deep, may have held door posts. If so, then assuming this doorway to have been located centrally in the building's southern wall, it suggests that the large, isolated posthole to their north-east defined that corner of the building. This would give the building approximate overall dimensions of 11m by 4m, most of which left no archaeological trace. Whether the pit to the north-west of the doorway held another substantial post is uncertain, as is the function of the much smaller internal postholes at the west end of the building. The two postholes outside the doorway may have held the timber uprights for a porch, although their alignment in relation to that of the building casts doubt on this.

The suspected size of building G3196 makes it likely to have been a fairly substantial house, with G3194 as an outbuilding. These two buildings lay adjacent to the curvilinear ditch system that was set out in Phase 5a (cf. Figures 4.1 and 4.3), which was very different to the other enclosure systems that were established both before and after this. Whatever the two buildings' precise configuration and methods of construction, do their differences from the other buildings at Stratton combine with the singularity of the adjacent ditch system to provide evidence of a transient change in cultural influences?

G3208 (Phase 5, L28)

The postholes in G3208 possibly defined a roughly square building measuring 5.0m by 4.5m (Figure 7.14), although it is possible that this was a lesser structure such as an animal pen or enclosure. There was little evidence for the southern and eastern sides of this putative building – yet this was also true for the northern and eastern sides of building G3196, suggesting that an absence of structural remains in this part of the settlement cannot necessarily be taken to indicate an absence of structures.

G3244 (Phase 5, L28)

The two most north-westerly postholes in G3244 can be identified with reasonable confidence as a porch, outside the main or sole entrance into the building (Figure 7.14). The greater problem lies in identifying the extent of this house, as the proliferation of postholes in this area serves to obscure the building's outline.

If the doorway and porch were located centrally along the building's northern wall, then this suggests a roughly square building that measured 5.0m by 4.5m. If the large posthole south of the doorway was central

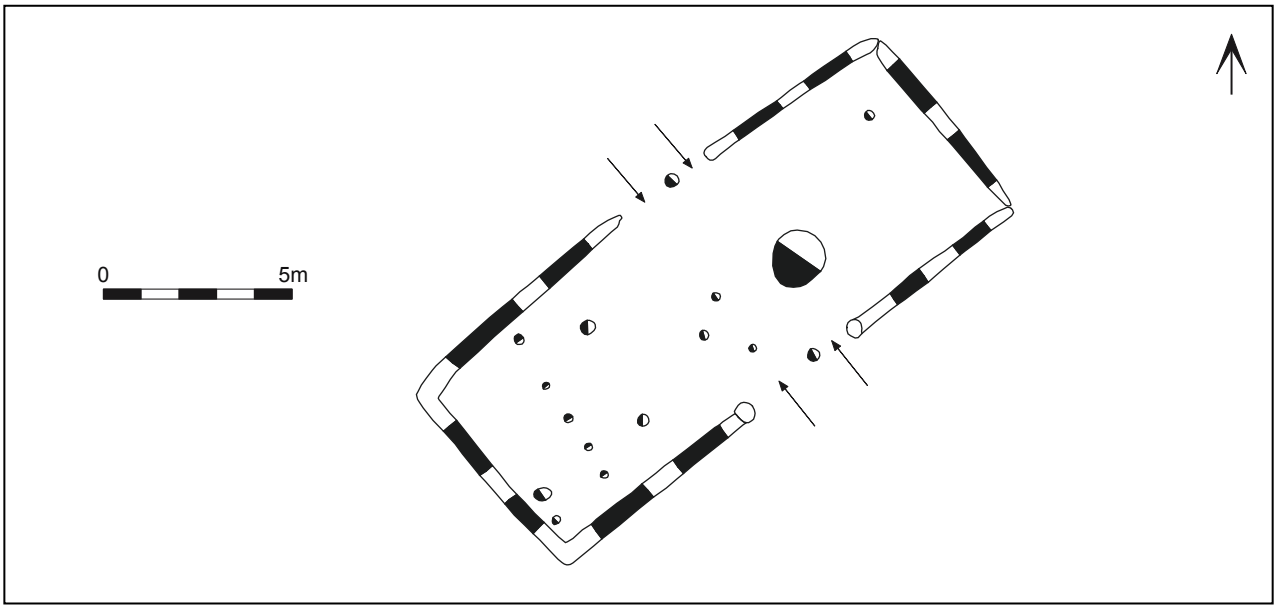


Figure 7.16: Plan of Phase 5b earthfast timber building G5108

Figure 7.17: Building G5108, looking south-west

to the building, however, then this would suggest that the two southernmost postholes were included in the building's southern wall, making the building's dimensions 6m by 5m. There were further postholes to the east and west, however: these were probably related to fences or other structures that were not contemporary with this building, yet it would also be possible to trace the outline of a building measuring 13m by 3m, with the porch slightly east of centre on the northern wall, and perhaps an annexe to the south. A further expanse of postholes lay to the north of G3244 – no further buildings were evident, but these are likely to represent structures such as fences that were associated with building G3244.

G3568 (Phase 5, L31)

In common with general construction trends by the 10th century (Hamerow 2011: 131), building G3568 seems to have had load-bearing side walls with a less substantial arrangement (represented in this case by a single posthole) at either end (Figure 7.15). Its overall dimension were probably 8.0m by 5.5m, assuming that the short slot to the north-west did not relate to an integral part of the building. It was suspected during excavation that the structural slots held posts rather than ground beams, but their steep sides and flat bases would have suited either construction technique.

7.2.3.10 G3822 (Phase 5, L28)

Within the postholes of G3822 there are hints of a building measuring roughly 5.5m square (Figure 7.14), but its outline is unclear, and it is far from certain which way it faced or where its entrance was. It may have been an outbuilding, with a less regular approach to its construction than a house would probably have had – the square or rectangular postholes along its southern side suggest that it was built using recycled timber uprights that had perhaps been tie beams in a nearby earlier building such as G3266 (Phase 4).

7.2.3.11 G5108 (Phase 5b, L38)

G5108 was the only building at Stratton that can clearly be identified as a longhouse, with a wide, slightly off-centre cross passage and overall dimensions of 15.5m by 6.5m (Figures 7.16 and 7.17). The entrance on the southern side of the building was flanked by two substantial postholes, measuring 0.45m in diameter and 0.31–0.40m deep; their absence on the northern side, however, suggests that the more substantial southern doorposts were primarily for display at the front of the building rather than occasioned by structural necessity. Each entrance to the cross passage also had an off-centre posthole near its middle: their purpose is uncertain, but in view of the width of the entrances (the

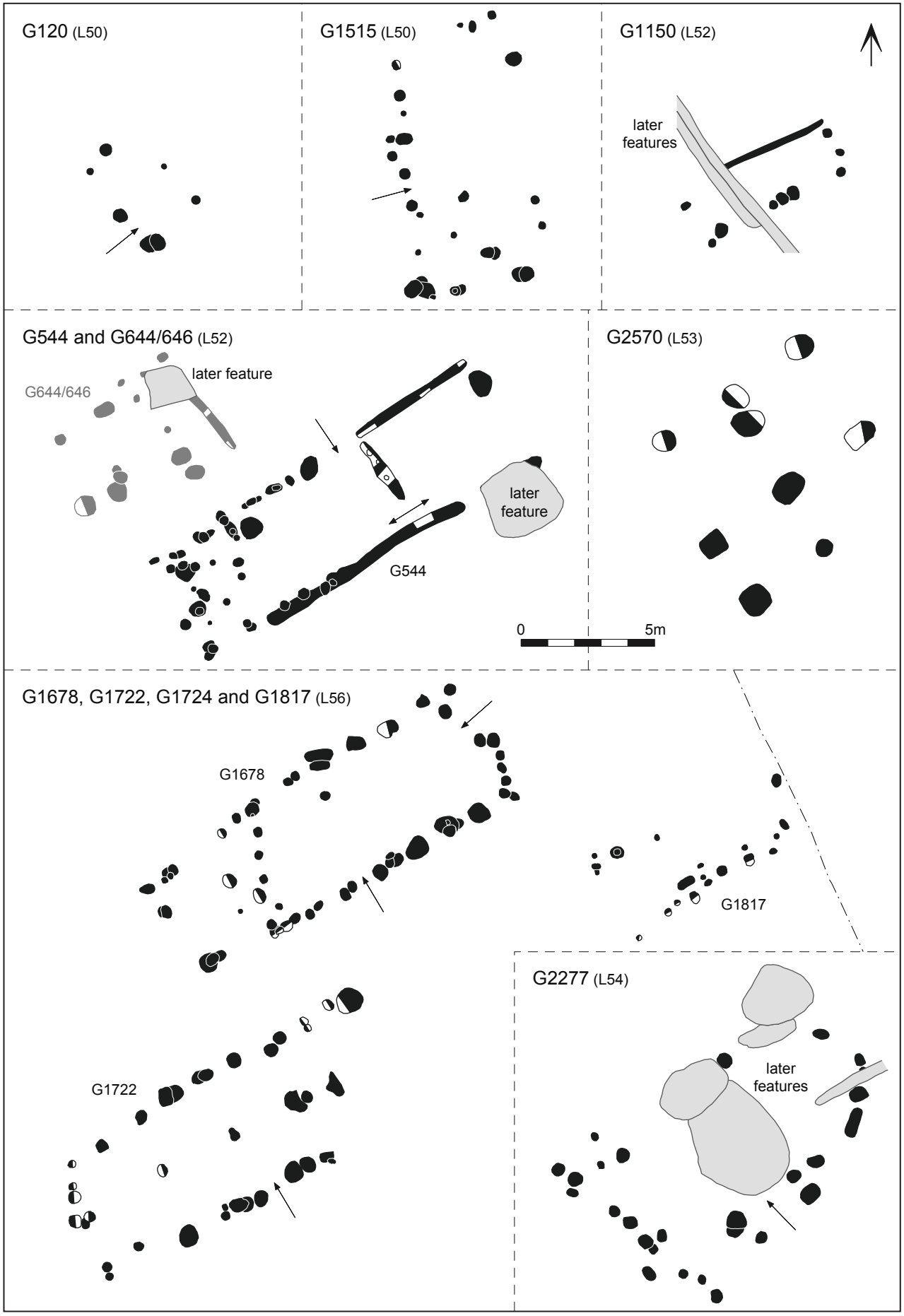

G120 (L50)
G1515 (L50)
G1150 (L52)
later features
G544 and G644/646 (L52)
G644/646
later feature
later feature
G544
G2570 (L53)
0
5m
G1678, G1722, G1724 and G1817 (L56)
G1678
G1817
G1722
G2277 (L54)
later features

Figure 7.18 (opposite page): Plans of Phase 6 earthfast timber buildings

broader southern one was 3.2m wide) they perhaps also held doorposts. This configuration suggests that the two entrances were controlled by double doors to the west, and a single door to the east – was this to allow separate access into the two halves of the building?

The building's external walls were constructed using ground beams, which may have been shaped at the eastern end of the building to allow for a closer fit. Internal features were constructed using earthfast posts, however, the main one of which was the line of posts near the building's western end. These may simply have formed a screen, separating off this end of the building from the rest of the room, but they may also have supported the eastern side of a hayloft or granary, access to which was perhaps provided by a ladder in the south-west corner of the building. The function of the other internal posts is uncertain, though the two that were in line with the row of five in the south-west room perhaps formed a partition.

A large pit was revealed in the eastern half of the building, measuring *c.* 1.5m in diameter and 1.65m deep (Figure 4.10:a). Although its contemporaneity with the building is not beyond doubt, there were few features from different periods in this part of the excavated area, making its position seem more than coincidental. The pit had vertical sides and a roughly flat base, suggesting that it was used for storage.

Period 6: medieval

G120 (Phase 6, L50)

This small, single-roomed building lay at the northern margin of farmstead L50, and was probably an agricultural outbuilding such as a field barn. It was 4.5m long and 3.0m wide and had been constructed using earthfast posts (Figure 7.18), the replacement of one of which does suggest that the building attained some degree of longevity. There may have been a doorway in the building's south-west corner.

G544 and G644/646 (Phase 6, L52)

Building G544 was the farmhouse associated with the expansive farmstead L52, making it likely that this was one of the more impressive houses at Stratton. It was either 12m or 15m long (its precise length is unclear due to uncertainty about its western end) and 4.5–5m wide, broadening slightly to the east of its partition wall (Figure 7.18). The building's long walls were largely constructed using ground beams; the final incarnation of the partition wall also used this method, but seems to have been built originally using earthfast posts. Access between the building's two rooms was possible, and a door to the outside was located roughly half way along

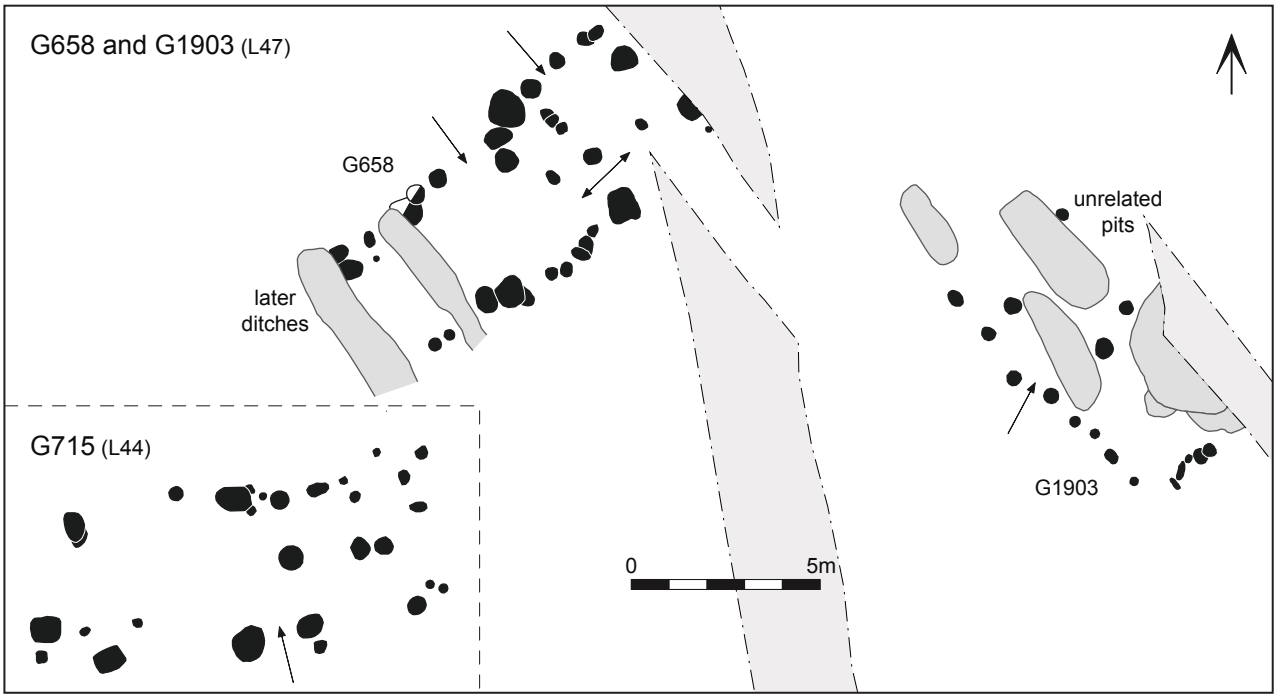


Figure 7.19: Plans of Phase 6a earthfast timber buildings

the northern wall; there may also have been an external door on the southern side of the eastern room, but this was obscured by later disturbance.

The building's longevity is attested by the wealth of repairs and alterations carried out, particularly at its western end, although it is unclear exactly what was done and quite why so much work was required. It is possible that some of the postholes related to craft activities: the finds assemblages from this area support the theory that such activities took place within the building. Perhaps the two rooms had different functions, with the eastern room used as living space and the western room for crafts such as milling and smithing – were some of the repairs even occasioned by fire damage resulting from the latter activity?

Outbuilding G644/646 lay immediately north-west of farmhouse G544. Its construction was much less regular than that of the farmhouse, with only its northern and eastern walls clearly defined. A possible partial explanation for this is that the building was in fact an extension to the farmhouse, with an entrance at the southern end of its eastern wall; this still leaves uncertainty about its western wall, but it is unlikely to have lain further west than the corresponding end of the farmhouse, giving the building an overall dimension of roughly 6m square. The function of the internal postholes is unclear: they may have held partition walls, or the pairs of larger postholes perhaps held ladders to enable access to an upper storey.

G658 and G1903 (Phase 6a, L47)

Building G658 was 4.5m wide and at least 10m long (Figure 7.19), but its full extent was not quite visible due to the presence of later features and its slight continuation into an unexcavated area. A partition wall divided the building into two rooms, probably with a connecting doorway at the southern end of the partition, while there was external access into each of the rooms through the building's northern wall. The feature at the eastern end of the building that was only partially revealed within the excavated area was recorded as a hearth, but it was not excavated, making this interpretation unconfirmed. Several instances of repair were apparent where posts had been replaced, while the presence of large, sub-square post-pits suggests that beams from disused buildings elsewhere were used to supply at least some of this building's posts.

Building G1903 was a smaller structure, measuring 8m long and 4m wide, and is likely to have been an outbuilding for G658. The layout of this building was also masked by the presence of later features. Two internal postholes were identified, the central one perhaps partitioning the building into two rooms; there was perhaps an external entrance into the northern room immediately north of the partition.

G715 (Phase 6a, L44)

Building G715 was 9.5m long (or possibly longer if the two westernmost postholes were an integral part of it) and 5m wide (Figure 7.19). Its layout was masked to a certain degree by the presence of numerous unrelated postholes in its vicinity, while it is also possible that further postholes that did relate to the building went unrecognised because they had been dug into the fill of earlier features. It is unclear whether the building was partitioned into two rooms: the roughly central post may have been part of a partition wall, yet it could have combined with the two to its east to provide extra support for the roof. The building's main entrance is likely to have lain centrally along the southern wall. Packing material was noted in some of the postholes, while the squared shape of some of those at the western end perhaps indicates that beams from earlier houses were reused here as posts.

G1150 (Phase 6, L52)

There were numerous post-built structures associated with farmstead L52 apart from farmhouse G544 and its adjacent outbuilding, but most are believed to have been fences or pens. However, G1150 is tentatively suggested to have been an outbuilding, measuring 6m long and at least 2m wide (Figure 7.18). It was constructed primarily using earthfast posts, but its northern side was constructed using a foundation trench.

G1515 (Phase 6, L50)

G1515 is believed to represent the remains of a building measuring 9m long and 5m wide (Figure 7.18), although there is a certain amount of conjecture in this due to the difficulty in distinguishing its components from the other postholes that surrounded the building. The entrance to the building is likely to have been roughly central on its western side. Several repairs to the southern end of the building were apparent; the layout of this part of the structure is uncertain, but it was presumably either a separate room from the northern half or perhaps even a lean-to structure or extension that was added to the main building.

G1678, G1722 and G1817 (Phase 6, L56)

Building G1678 was 14m long and 5m wide (Figure 7.18), with all four of its walls showing evidence of repair in the form of replacement posts. The building consisted primarily of a single room, whose western end had an irregular shape, similar to that observed in the Phase 5 buildings G538 and G617 (Figures 7.14 and 7.15). Access into this room was probably through

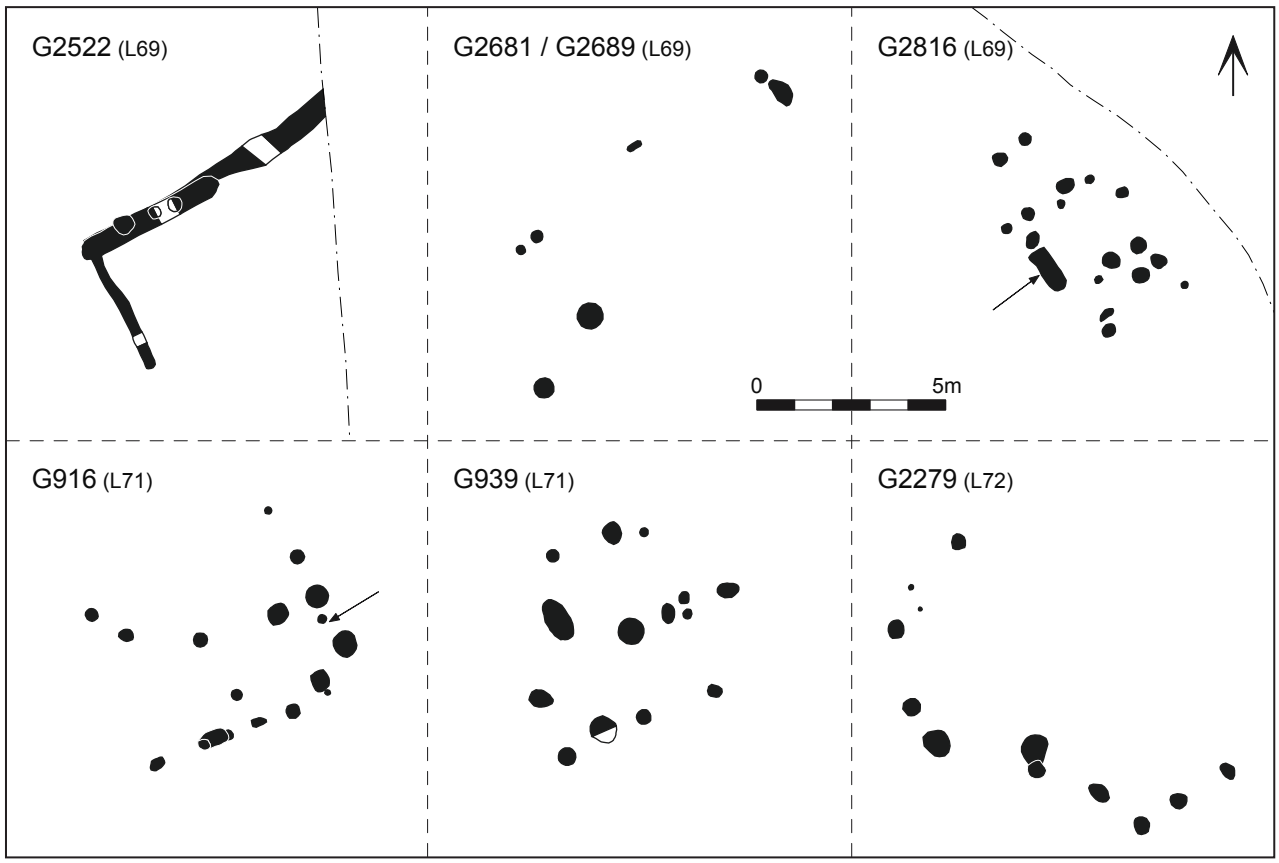


Figure 7.20: Plans of Phase 7 earthfast timber buildings

a door located centrally along the building's southern side; the internal posts in the north-east corner of the room potentially defined a recessed porch, but they may simply have given extra support to this corner of the building. There was no obvious doorway leading from this large room into the small western one; this suggests that the latter had to be accessed externally, although the precise location of the doorway is unclear.

While building G1678 is likely to have been a domestic dwelling, its equally sized neighbour G1722 was more characteristic of a barn. There were no internal partitions: the line of postholes running centrally along the building is likely to have held roof supports. While there was a doorway located centrally along the building's southern side, the eastern end of the barn may also have been left open, but evidence in this area had been obscured by the presence of trial trenches. Repairs were evident to the building's outer walls, though not as numerous as seen on G1678.

G1817 probably represents a smaller outbuilding to G1678, although it may simply have been a lesser structure such as an animal pen. It was 8.0m long and 3.5m wide, with a seemingly irregular shape in plan: if it was indeed a building then a substantial proportion of it had been constructed using methods that left no remains.

G2277 (Phase 6, L54)

This speculative grouping of structural features appears to define a building measuring 10.5m long and *c.* 6m wide, with an apse at its north-east end (Figure 7.18). The building may in fact have been slightly narrower, with a porch on its south-east side. No internal features were apparent, but these may have been destroyed by the later pits that were dug in this area. A variety of buildings had apsidal ends, including religious buildings: there is a possibility that this arrangement of postholes represents an early chapel, although any attempt to identify it as the Chapel of St Mary referred to in documentary sources would be additionally speculative.

G2570 (Phase 6, L53)

Although this part of farmstead L53 contained a proliferation of postholes, this particular collection of post-pits does seem to have formed a morphologically compatible group representing an L-shaped building with a maximum length and breadth of 8m (Figure

7.18). The single internal posthole may have allowed the building to be divided into two rooms, but there are no other clues as to its internal configuration.

The size of the post-pits, with some more than 1m wide, clearly indicates that the posts had been placed into the holes rather than driven into the ground. This may have been necessary in part due to the reuse of large timbers from buildings elsewhere: the presence of squared pits suggest that architectural features such as tie-beams were recycled to provide the timber uprights for G2570.

Period 7: late medieval

Of the structures that were assigned to Phase 7, six are tentatively identified as the remains of buildings (Figure 7.20), though the remains of all six were fragmentary and inconclusive. At most, they are likely to have been outhouses: masonry foundations seem to have been favoured for the main buildings of this date.

Three of these structures formed part of farmstead L69: G2522, G2681/2689 and G2816. The first was only partially revealed within the excavated area, but its post-in-trench construction technique suggests that it did form part of a building rather than just a fence. G2681/2689 lay on the very southern edge of the farmstead and housed oven G2685, though it is unclear whether it represents a roofed structure or merely a fence around the oven. G2816 was a small structure (the main element was just 4m long and 3m wide, with a possible extension to the north-west), but does definitely seem to have been a building – it even had a properly defined threshold, with rubble set into the linear slot in the western wall. Quite what its function was, however, is unknown.

Two of the other structures were located less than 10m from each other within smallholding L71, both measuring roughly 5m by 6m, although the multitude of both contemporary and earlier features in this area masked their exact layout. Two postholes at the south-east corner of G916 were more substantial than the others and are likely to have held doorposts, and the central pit in G939 contained debris that may have come from a hearth, but the surviving features offered little further scope for interpretation. Although it is possible that G939 served a domestic function, both are likely to have been outbuildings – probably agricultural in function – although they could perhaps have been associated with the nearby quarrying operations.

The sixth structure was G2279 (L72), a collection of postholes that possibly just formed an animal pen, but did have the appearance of a single-roomed building with an apse on its western side. It is unknown whether its eastern side lay open or was defined by a less substantial wall that left no archaeological trace. G2279 appears to have been located within an open field, away from any domestic activity, but this may have been present in the unexcavated area not far to the east.

Chapter 8.
Overview of the artefacts

Pottery

Jackie Wells

Introduction

The excavated assemblage comes from 11,554 vessels, represented by 16,410 sherds, weighing 184.9kg. Pottery ranges in date from the early prehistoric to the post-medieval / modern periods, with the bulk of the assemblage being of late Anglo-Saxon and medieval date (Table 8.1; excludes unstratified material). Accordingly, condition and preservation of the material is highly variable.

Early and middle Anglo-Saxon (Periods 3 and 4)

Pottery of early or middle Anglo-Saxon date totals 1849 sherds (25.7kg), representing 1279 vessels. Some 60% of the assemblage derives from Anglo-Saxon features within Periods 3 and 4; the remainder occurs residually, or within unstratified deposits.

The range of ware types and vessel forms generally compares well with contemporary assemblages collected from sites across the county, such as Bedford (Baker and Hassall 1979a), Harrold (Shepherd *et al.* 2012), Stotfold (Albion Archaeology 2011), the Biddenham Loop (Wells 2016); and from sites further afield such as

Table 8.1: Pottery quantification by Phase

		Pottery Date									
Period	Phase	Early prehistoric	Iron Age	Roman	Early – middle Saxon	Late Anglo-Saxon	Medieval	Late medieval	Post-medieval	Modern	Total sherds
1	1	40	1	-	-	-	-	-	-	-	**41**
2	2	-	353	2	3	3	2	-	-	-	**363**
3	3	2	7	14	512	3	6	1	1	-	**546**
4	4	-	1	2	42	59	12	1	-	-	**117**
	4a	-	15	8	173	72	24	-	1	-	**293**
	4b	-	10	15	392	200	39	20	-	-	**676**
5	5	-	4	7	115	940	311	12	-	-	**1,389**
	5a	-	3	7	123	532	57	-	-	-	**722**
	5b	-	8	8	63	64	24	2	-	-	**169**
6	6	-	28	47	81	1635	2,613	148	1	2	**4,555**
	6a	-	-	7	21	208	78	14	2	-	**330**
7	7	-	13	41	94	721	1,376	895	39	16	**3,195**
	7b	-	-	6	17	299	575	354	31	8	**1,290**
8	8	-	2	9	2	45	150	363	157	15	**743**
	Total	**42**	**445**	**173**	**1,638**	**4,781**	**5,267**	**1,810**	**232**	**41**	**14,429**
	% Total	**0.3**	**3.1**	**1.2**	**11.3**	**33.1**	**36.6**	**12.5**	**1.6**	**0.3**	**100**

Shaded areas denote wares contemporary with Phase

Table 8.2: Early and middle Anglo-Saxon pottery fabrics (from all periods)

Fabric	Common name	No. sherds	% Sherd	Wt (g)	MSW (g)
Local					
A16	Mixed quartz	538	29.1	6326	12
A18	Fine quartz	391	21.1	2830	7
A19	Quartz and organic	91	4.9	974	11
A01	Organic	20	1.1	165	8
Local / Regional					
A05	Shelly limestone and quartz	58	3.1	454	8
Regional					
A23	Sandstone	140	7.6	1679	12
A24	Oolitic	53	2.9	492	9
A08	Ipswich ware	18	0.9	491	27
Unknown					
A11	Southern Maxey-type ware	539	29.2	12,267	23
A	Non-specific Anglo-Saxon	1	0.1	13	13
Total		**1849**	**100**	**25,691**	-

MSW: mean sherd weight

Pennyland, Milton Keynes (Blinkhorn 1993) and sites in the vicinity of Raunds, Northamptonshire (Pearson 2008; Blinkhorn 2010).

The presence of a sizable assemblage (539 sherds, *c.* 12kg) of middle Anglo-Saxon Maxey-type ware is significant. The material demonstrates continuity throughout the Anglo-Saxon period, and at the time of writing represents the largest collection of this ware within the county.

Fabrics

Ten fabric types are represented (Table 8.2; Digital Appendix A3). Ware quantification by Phase is detailed in Table 8.3. Classification is based upon the dominant inclusion type, although there is an inevitable degree of overlap between some wares. The bulk of the pottery is likely to have been manufactured by the settlement's inhabitants; petrographic examination of selected fabric samples (Quinn 2010a) suggests exploitation of raw materials from both the immediate locality and regional sources.

Quartz-rich fabrics A16, A18 and A19 account for 55% of the assemblage comprises, potential sources for which are the Greensand ridge and extensive alluvial and terrace deposits of the nearby River Ivel. The Cornbrash near Bedford may be a local source for shelly limestone fabric A05, with the presence of oolites in some sherds indicating an additional source further north into Northamptonshire. Wares containing sandstone (A23) and oolites (A24) are likely to be regional imports, the former perhaps deriving from Northamptonshire and the latter from north-east Northamptonshire or south Lincolnshire. Granitic pottery, originating from Charnwood Forest in Leicestershire and occurring in small quantities on sites across the county such as Tempsford (Blinkhorn 2005: 53), Harrold (Wells 2012: 56) and the Biddenham Loop (Wells 2016), is entirely absent from the assemblage, although the reason for this is unclear.

Characteristic middle Anglo-Saxon fabrics mainly comprise Southern Maxey-type ware (A11), found on many sites across Bedfordshire, Cambridgeshire and Northamptonshire; and a small quantity of slow-wheel-made Ipswich ware (A08), the latter a regional import from the eponymous Suffolk town.

Forms

Vessels are generally well made and robust; surface preservation is fair, and sherd edges are relatively unabraded. Despite a good mean sherd weight of 14g, the majority of the stratified assemblage comprises small groups of plain sherds, mainly deriving from different vessels, with limited potential for useful inter-

Table 8.3: Anglo-Saxon pottery quantification by Phase

	Phase 3		Phase 4		Phase 4a		Phase 4b		Phase 5		Phase 5a		Phase 5b				
	No. Sh	Wt (g)	No. Sh	Wt (g)	No. Sh	Wt (g)	No. Sh	Wt (g)	No. Sh	Wt (g)	No. Sh	Wt (g)	No. Sh	Wt (g)	Total Sherds	Total Wt	MSW (g)
A01	5	56	-	-	7	55	1	8	-	-	1	7	-	-	14	126	9
A05	3	11	2	6	1	7	2	18	4	15	45	390	-	-	57	447	8
A16	263	3437	23	267	52	582	40	396	14	122	22	152	10	243	421	5199	12
A18	127	994	11	61	45	602	23	177	12	91	7	65	9	62	234	2052	9
A19	14	126	1	14	22	271	6	89	4	104	7	47	2	7	56	658	12
A23	80	1179	6	34	8	128	3	17	2	33	8	69	2	2	109	1462	13
A24	19	173	-	-	4	71	2	17	3	26	5	42	2	11	35	340	10
A08	1	10	-	-	9	199	2	84	2	59	1	6	-	-	15	358	24
A11	-	-	5	59	25	683	312	8282	68	999	27	522	38	461	475	11,006	23
A	-	-	-	-	-	-	1	13	-	-	-	-	-	-	1	13	13
Total	**512**	**5986**	**48**	**441**	**173**	**2598**	**392**	**9101**	**109**	**1449**	**123**	**1300**	**63**	**786**	**1417**	**21,661**	**-**
MSW		12g		9g		15g		23g		13g		11g		12g	15g		

MSW: mean sherd weight

site comparison. Few vessels could be reconstructed to a full profile, although a number could be rebuilt sufficiently to provide a general idea of their form.

The handmade vessels are mainly undecorated, and in most cases are entirely reduced, characteristic of firing in a bonfire or clamp-type kiln. Most vessels are probably coil-built, and have been well finished, displaying variable wall thickness. Where classifiable, diagnostic forms comprise globular, biconical / sub-biconical and shouldered jars. Bowls occur in globular and sub-biconical forms. Rims for both vessel classes are either everted or upright. Although rims are well represented, they are often too fragmentary to determine the vessel form from which they derive.

The Maxey-type vessels are coil-built and thick-walled. Forms present are bowls and jars with slightly everted or incurving, irregular rims, and pierced upright lugs, bar-lugs or swallow's-nest lugs. Ipswich ware is represented entirely by body sherds.

Calculation of rim diameter is problematic given the lack of symmetry common to handmade vessels. Diameters for jars are highly variable and appear to range between 60mm and 200mm, peaking at 180–190mm, and with one outlier in excess of 200mm. Bowl diameters range between 100mm and 210mm. In common with many Anglo-Saxon assemblages, bases are rare; the majority are simple flat-rounded, flat-angled and rounded examples. The latter may be under-represented in the assemblage, given their similarity to body sherds.

Surface treatment and decoration

The surfaces of most examples are untreated apart from simple wiping / smoothing. Burnishing, probably undertaken for both functional and aesthetic reasons, occurs on 159 vessels and varies from a light burnish to a high gloss. Burnishing on the interior of several vessels suggests attempts to enhance functionality (cf. Blinkhorn 2008: 173). Decorated wares total approximately 2% of the assemblage (by vessel count) and comprise incised, impressed and stamped motifs. One vessel has a possible slipped (*schlickung*) surface. The incised sherds have simple horizontal, vertical and/or diagonal lines or grooves: more elaborate designs such as chevrons or pendant grooves are absent.

Two different pottery stamps, perhaps suggesting a 5th- or 6th-century date, occur on six vessels in fabrics A16, A18 and A19: simple cruciform circles (Briscoe category A4); and rosette and segmented circles (A5). Both stamps are very common, and are well represented in decorated Anglo-Saxon assemblages (cf. Hamerow 1993: 45). Stamped decoration occurs in combination with incised linear decoration, although the extant sherds are too small for a decorative scheme to be fully identified.

Use

Simple jars and bowls, in a relatively limited variety of identifiable forms, appear to have fulfilled various functions. Some 12% of the pottery (by vessel count) is

externally sooted, while thick internal sooty residues, possibly resulting from the unintentional burning of vessel contents during cooking, are visible on 2%. White (limescale?) residues occur on the interiors of 1% of the assemblage. Decorated and more elaborate vessels, many occurring in finer fabrics, lack any sooting, perhaps suggesting their exclusive use as tableware. None of the vessels shows evidence for repair.

Chronology

The ceramic assemblage has been ascribed a broad date spanning *c.* AD 450–850. The bulk of the pottery comprises domestic plain wares, which are not closely datable. Radiocarbon dates for residues adhering to three sherds in dominant fabrics A16 and A18 provide a date range of *c.* AD 430–630 (Tables 3.1 and 3.4), although the abundance of these wares in middle Anglo-Saxon Period 4 deposits (Table 8.3) suggests longevity and continued use into the later period. The small number of decorated and/or stamped vessels are characteristically early Anglo-Saxon in date, the inclination to decorate pottery largely ceasing by the early 7th century (Myres 1977). Organic or 'chaff-tempered' wares, known to be most abundant during the 7th century, are poorly represented, totalling only 1% of the assemblage.

A definitive middle Anglo-Saxon component within the assemblage is provided by the Maxey-type wares, traditionally dated to *c.* AD 650–850 (Hurst 1976). A single radiocarbon date obtained from a residue attached to a Maxey sherd from SFB G3155 yielded a date range of cal. AD 780–975 (Table 3.6). Ipswich ware, represented at Stratton in small quantities, is thought to span the period AD 725/740 to AD 850 at sites outside East Anglia (Blinkhorn 2012).

Late Anglo-Saxon / Saxo-Norman (Period 5)

The late Anglo-Saxon assemblage comprises 5230 sherds (40kg) from 4310 vessels. Only 30% of the pottery derives from Period 5 features: the presence of a large proportion of the assemblage in later deposits can be attributed to disturbance resulting from medieval and post-medieval activity. Period 5 features also contained a quantity of residual early and middle Anglo-Saxon material deriving from underlying Period 4 deposits. Despite a good mean sherd weight of 14g, the late Anglo-Saxon pottery mostly comprises disturbed groups of non-joining sherds, mainly representing secondary deposition.

Fabrics

Ninety-eight percent of the late Anglo-Saxon assemblage comprises shell-tempered St Neots-type ware (B01). A gradual transition from St Neots-type wares into early medieval shelly wares (B07 at Stratton) has been postulated (Hurst 1976: 323), evidenced by increased mineral additives in the fabric through time, and the diminution of the distinctive soapy feel of early examples. Given the lack of an undisturbed stratified sequence at Stratton, it has not been possible to demonstrate this. A number of distinctive fabric variations within the ware – some with chronological implications – have, however, been observed, and are classified as B01 sub-types (Table 8.4).

Table 8.4: Late Anglo-Saxon pottery fabrics (all phases)

Fabric	Common name	No. sherds	% Sherd	Wt (g)	MSW (g)
B01	St Neots-type ware	3637	69.6	25,379	7
B01A	St Neots-type (orange)	280	5.4	1864	7
B01B	St Neots-type (fine)	188	3.6	2282	12
B01C	St Neots-type (mixed)	305	5.9	2242	7
B01D	St Neots-type (red inclusions)	5	0.1	80	16
B04	St Neots-type (coarse)	707	13.6	6216	9
B04A	St Neots-type (handmade)	9	0.1	147	16
C08	Thetford-type ware	40	0.7	1476	37
C12	Stamford ware	51	0.9	325	6
B	Non-specific late Anglo-Saxon	8	0.1	85	11
Total		**5230**	**100**	**40,096**	**-**

MSW: mean sherd weight

St Neots-type wares are widely distributed throughout the south-east Midlands and East Anglia. Mellor (1994: 60) has suggested that the industry's aggressive marketing policy ensured that this became the dominant ceramic type over an extensive area. Locally, the pottery compares well with assemblages collected from nearby rural sites at Tempsford (Maull and Chapman 2005) and Stotfold (Albion Archaeology 2011), and from urban excavations in Bedford (Baker and Hassall 1979a; Albion Archaeology 2008). Regionally, the Stratton examples are closely paralleled by assemblages from Botolph Bridge, Cambridgeshire (Spoerry 2015: 91); Caldecotte, Hertfordshire (Whittingham 2009: 153), Great Linford, Buckinghamshire (Mynard 1992: 249), and Raunds, Northamptonshire (Pearson 2008: 158; Blinkhorn 2008: 182). Although no manufacturing sites are known, there are strong correlations between concentrations of St Neots-type ware and outcrops of Jurassic geology, suggesting that kilns were sited to exploit deposits of the fossil shell which form an important component of the fabric (McCarthy 1979).

Small quantities of Stamford ware, a regional import from Lincolnshire, and Thetford-type ware complete the late Anglo-Saxon assemblage. For the latter, kilns are known from the East Anglian towns of Thetford, Ipswich and Norwich, and a number of rural sites such as Grimston, Norfolk.

Forms

Vessels are predominantly wheel-thrown, although a number of larger forms may be coil-built. A utilitarian range of vessels is dominated by jars (390 examples) with simple everted or hooked rims, ranging in diameter between 100mm and 260mm (two outliers at 280mm and 300mm), and a small number of post-Conquest 'top-hat' forms. Bowls (198 vessels) have characteristic inturned, hammerhead and simple upright rims, and range in diameter between 180mm and 300mm. Five spouted bowls and four jugs occur, the latter representing a post-Conquest introduction (Pearson 1996: 84). Vessel-wall thickness across all forms ranges between 3mm and 14mm. The assemblage includes two unidentifiable forms.

Diagnostic wheel-thrown Thetford-type forms comprise 13 storage jars with large rims and applied thumbed strips, and two spouted pitchers. Glazed Stamford-ware vessels are represented by two spouted pitchers and single examples of a jar and jug.

Surface treatment and decoration

St Neots-type vessels are frequently self-slipped or wet-hand finished, yielding a soapy texture. Decoration is sparse, and comprises thumbed impressions, either in the form of applied strips or directly impressed into jar rims and the carination of bowls. The thumbed strips may derive from larger storage vessels.

Use

Sooting occurs to some degree on 11% of the St Neots-type pottery (by vessel count), while 2% have internal white (limescale?) residues. None of the vessels shows evidence for repair. External sooting occurs on one Thetford-ware jar, and Stamford wares are entirely unsooted, indicating their sole use as tableware.

Chronology

St Neots-type ware ranges in date from the mid-9th to 12th century, peaking during the 10th–11th centuries. By the 12th century, the latest sub-division of the type (fabric B01A) had merged into the early medieval shell-tempered wares (type B07), making distinction between the two types problematic. Organic residues surviving on three type-B01 sherds yielded radiocarbon dates of AD 880–1020, AD 970–1040, and AD 1010–1170 (all at 95% confidence), confirming the longevity of the ware. Stamford and Thetford-type wares are not precisely datable; the former spans the 10th and 11th centuries, while the latter is assigned a date range of AD 875–1100.

Medieval (Period 6)

Medieval ceramics dominate the Stratton assemblage, totalling 6025 sherds (70.7kg) from 4029 vessels. Medieval features assigned to Period 6 account for 45% of the assemblage, with the remainder occurring as either residual or intrusive material, or within unstratified deposits.

Medieval pottery comprises a range of local wares and regional imports spanning the 12th to 15th centuries. No evidence was found for pottery production on site. The assemblage suffers from the lack of a definitive stratigraphic sequence, and has been subject to episodes of redeposition and disturbance. Consequently, no attempt has been made to redefine ceramic chronology. The assemblage has a low vessel to sherd ratio of 1:1; sherds have a mean weight of 12g, and display variable levels of preservation.

Fabrics (Table 8.5)

Local wares

Some 77% of the pottery is considered to be of local manufacture, perhaps within a radius of *c.* 30–40km from the site. The assemblage is dominated by unglazed, sand-tempered coarse wares, principally those containing abundant calcareous inclusions (C61), and Hertfordshire-type grey wares (C60). The former was first identified at Stratton and, at the time of the

Table 8.5: Medieval pottery fabrics (all periods)

Fabric	Common name	Date Range	No. sherds	% Sherd	Wt (g)	MSW (g)
B07	Shelly ware (developed St Neots-type)	C12–13	760	12.6	9468	12
B09	Lyveden / Stanion 'A' ware	Late C12–13	52	0.7	806	16
B09	Lyveden / Stanion 'B' ware	C13–14	43	0.5	403	9
C01	Sandy ware	C11–13	514	8.3	4429	9
C02	Red quartz-tempered	C11–13	111	4.1	2662	24
C03	Fine sandy reduced ware	C12–13	289	4.6	2174	8
C03A	Fine sandy reduced ware with flint	C12–13	2	0.1	21	11
C05	Sandy reduced ware (red margins)	C12–14	212	3.3	1813	9
C09	Brill / Boarstall ware — fine	Mid-C13–14	124	2.0	1770	14
C10	Potterspury ware	Mid-C13–15	25	0.4	267	11
C11	Brill / Boarstall ware — coarse	Mid-C13–14	8	0.1	94	12
C12A	Developed Stamford ware	C13	2	0.1	15	8
C17	Hedingham-type ware	C12–14	63	1.0	818	13
C18	Grimston ware	C13–15	2	0.1	33	17
C58	Hertfordshire glazed ware	C13–15	4	0.1	21	5
C59A	Coarse sandy ware (pasty)	C12–13	374	6.2	3282	9
C59B	Sandy ware (harsh)	C12–13	192	3.2	2897	15
C60	Hertfordshire-type grey ware	Mid-C12–14	808	13.0	9292	12
C61	Sandy ware with calcareous inclusions	C12–14	1236	20.1	17,602	14
C65	Gritty oxidised ware	C13–14	7	0.1	133	19
C67	Mixed inclusions	C12–13?	129	2.1	1351	10
C69	Coarse slip-decorated	C13–mid-14	1	0.1	12	12
C70	Gritty ware	C13–14	28	0.5	429	15
C71	Buff-grey cored oxidised ware	C13–14	390	6.2	4188	11
C73	Scarborough ware	C13?	1	0.1	6	6
C75	Micaceous reduced ware	C12–13?	367	6.0	3686	10
C	Non-specific medieval sand-tempered	C12–14	281	4.4	2986	11
Total			**6025**	**100**	**70,658**	-

MSW: mean sherd weight

main excavation (1991), represented a new addition to the Bedfordshire Ceramic Type Series. Petrographic examination of five type-C61 fabric samples (Vince 1995; Quinn 2010a) suggests derivation of the pottery from both the immediate locality and from regional sources. While a number of vessels in this type have been identified as Ely products or Ely-type wares (Spoerry 2008: 73), the prevalence of this type at Stratton suggests additional and more local production sites. Sherds are characterised by calcitic inclusions deriving from Cretaceous Chalk, known to occur to the south-east of the site and overlain in places by clay deposits (Vince 1995). These could conceivably represent a potential source of raw materials for the ware, and would account for the dominance of this type on site.

Hertfordshire-type grey ware has affinities with kiln products from the St Albans environs (Turner-Rugg 1987), whose distribution lay mainly in London (Blackmore and Pearce 2010). The presence of the ware in south and east Bedfordshire at Stratton, and also at

Chalgrave (Brine 1988), Tempsford (Blinkhorn 2005) and Grove Priory, near Leighton Buzzard (Slowikowski 2013), may suggest that other, as yet unrecognised production sites are likely to have existed. Grey wares with calcareous temper, which occur in small quantity at Stratton and have been recorded as a C60 variant, may have derived from kilns at Hitchin (Turner-Rugg 1993).

Fabrics C67, C70, C71 and C75 were also first identified at Stratton, and have subsequently occurred on a number of sites in the south and east of the county. Samples of these wares were submitted for petrographic analysis (Vince 1995; Quinn 2010a). Types C67 and C70 contain Greensand quartz inclusions and chert, which may have been added as temper to micaceous clay such as the Lower Cretaceous Gault (Vince 1995). These potential raw materials occur in the vicinity of Stratton. Type C71, characterised by quartz-sand temper and iron inclusions (Quinn 2010a), is similar both visually and petrographically to the late medieval reduced wares produced at Everton, approximately 7km north of Stratton. Although of different dates, both types are likely to have been made using the same local sources of raw materials.

Type C75 is of more ambiguous origin. An abundance of fine chert in the samples may suggest a source in an area of Lower Cretaceous chalk bedrock with flints, corresponding with the area east of Stratton, and also to the south-west (Quinn 2010a). Affinities have also been noted, however, with products of the Hedingham pottery industry of north Essex (Quinn 2010b), perhaps suggesting both local and regional sources for the type.

Regional wares

Local early medieval sandy coarse wares are supplemented by a number of unglazed shell-tempered wares (B07), totalling 12% of the assemblage. They derive from production centres on the Buckinghamshire / Bedfordshire / Northamptonshire borders – Olney-Hyde (Mynard 1984), Yardley Hastings (Brown 1993/94), and Harrold (Hall 1972).

Developed Stamford ware (C12A), a glazed fine ware from Lincolnshire, appeared in the early to mid-13th century, although it is represented by only two sherds. From the 13th century, vessels (usually jugs) derived from further afield, although principally from adjacent counties. Products of the Brill/Boarstall industry (Buckinghamshire) are dominant, with smaller quantities from Northamptonshire – Potterspury (C10) and Lyveden/Stanion (B09). The latter includes shelly limestone 'A' wares and glazed oolitic 'B' wares. Sources further afield are represented by a small number of wares from Essex (C17), Norfolk (C18) and North Yorkshire (C73).

The balance between different ware groups shows subtle, if unsurprising, chronological development between phases (Table 8.6). Sandy and shelly coarse wares display a consistent presence throughout both. Regional imports are represented in Phase 6a by negligible amounts of shelly ware, Brill/Boarstall and Lyveden ware. High medieval imports are better represented in Phase 6, although still only in small quantities. The mean sherd weight is comparable for both medieval phases.

Table 8.6: Medieval pottery quantification from Period 6

	Phase 6a		Phase 6	
Fabric	No. sherds	Wt (g)	No. sherds	Wt (g)
B07	8	43	300	4605
B09	1	14	53	743
C01	8	22	222	1398
C02	1	5	68	2355
C03	6	27	117	683
C03A	-	-	1	12
C05	2	10	66	455
C59A	5	32	91	802
C59B	4	27	80	1223
C60	6	89	363	4606
C61	17	592	660	10,575
C67	2	10	68	649
C71	6	85	119	1330
C75	3	16	179	2140
C	4	92	136	1362
C12A	-	-	1	14
C09	1	11	26	281
C11	2	37	4	32
C10	-	-	10	127
C17	-	-	19	177
C18	-	-	1	2
C65	-	-	1	100
C70	-	-	11	108
Total	**76**	**1112**	**2596**	**33,779**
MSW		**15g**		**13g**

MSW: mean sherd weight

Forms (Table 8.7)

The forms present are predominantly jars, jugs and bowls, which is typical of sites of this period (cf. Tempsford, Blinkhorn 2005; Bedford, Albion Archaeology 2008; Grove Priory, near Leighton Buzzard, Slowikowski 2013). Both handmade and wheel-thrown examples occur. Jars total 58% of the diagnostic assemblage and occur in varying sizes, indicating a range of functions, from tableware to storage vessel to cooking pot. Sooting marks on both shell- and sand-tempered sherds confirm that a proportion of these types represent kitchen wares. Jar rims are either simple everted, square or hooked examples, and range in diameter between 100mm and 260mm, with an outlier at 280mm. Most jars are undecorated, although some are combed, and thumbing occurs on rims and applied strips. Hertfordshire-type grey-ware jars have large diameters and are high-shouldered. Both wheel-thrown and handmade examples occur, some being obviously constructed in two or three separate parts. A number are decorated with faint incised horizontal grooves or wavy lines. Sizeable jars, likely to have been used for the storage of items such as fats, are also present. Larger quantities of wet and dry bulk goods would have been stored in barrels.

Bowls total 9% of the diagnostic assemblage. The ratio of bowls to jars (approximately 1:6) is consistent with the general composition of earlier medieval assemblages, in which wooden bowls formed a proportion of the domestic assemblage and ceramic jars / cooking vessels were the dominant form. Bowls are undecorated, with either upright, rounded or rectangular rims, ranging in diameter between 220mm and 520mm.

Jugs represent 31% of the assemblage. Although they occur in a range of fabrics (including unglazed wares), they are dominated by glazed high medieval examples from Brill/Boarstall, including baluster and tripartite forms in fine fabric C09. Handles are either rods with stabbed decoration, or straps with diagonal knife slashes along the back. Glazes vary in colour from yellow to pale green, often with dark green flecks, resulting from the addition of copper filings to the lead glaze. Jug forms for coarse type C11 are generally of large-body and rounded-shape, rather than of baluster type. All Brill/Boarstall vessels are of good quality, competently thrown and well finished, although some bases may have been attached separately. Two methods of handle attachment were observed: either insertion through the vessel wall and smoothed out on the interior; or the vessel wall was pushed into the handle and the resulting hollow plugged with a ball of clay. Potterspury jugs have a thin olive-green glaze on the upper body and strap handles with knife-slashed decoration. Hertfordshire-type grey wares have distinctive flaring rims and handles decorated with knife stabbing or slashing. Bases are occasionally thumbed. Jug rims range in diameter between 70mm and 140mm. It is possible that they are over-represented in the assemblage, due to their ease of recognition.

On average, vessel-wall thickness ranges between 5mm and 10mm, although particularly fine examples – usually small jars and jugs – with 2mm-thick walls

Table 8.7: Medieval forms by vessel count — all phases

	Vessel form			
Fabric	**Bowl**	**Jar**	**Jug**	**Other**
B07	16	42	17	
B09	2	15	4	
C01	3	48	7	Dripping pan (1)
C02	1	10	2	
C03	2	15	2	
C05	11	13	3	
C09	1	-	54	Salt (2)
C10	-	-	6	
C11	-	-	6	
C17	1	2	26	
C18	-	-	2	
C58	-	-	1	
C59A	-	-	2	
C59B	-	16	2	
C60	3	57	6	
C61	12	102	10	Spouted pitcher (1)
C65	-	-	3	
C67	2	6	1	
C69	-	-	1	
C70	-	-	13	
C71	5	22	13	Bottle (1) Pipkin (2)
C73	-	-	1	
C75	-	4	-	Drinking jug (1)
C	-	13	8	Dripping pan (1) Spouted pitcher (1)
Total	**59**	**365**	**190**	**10**
%	**9.4**	**57.9**	**31.0**	**1.7**

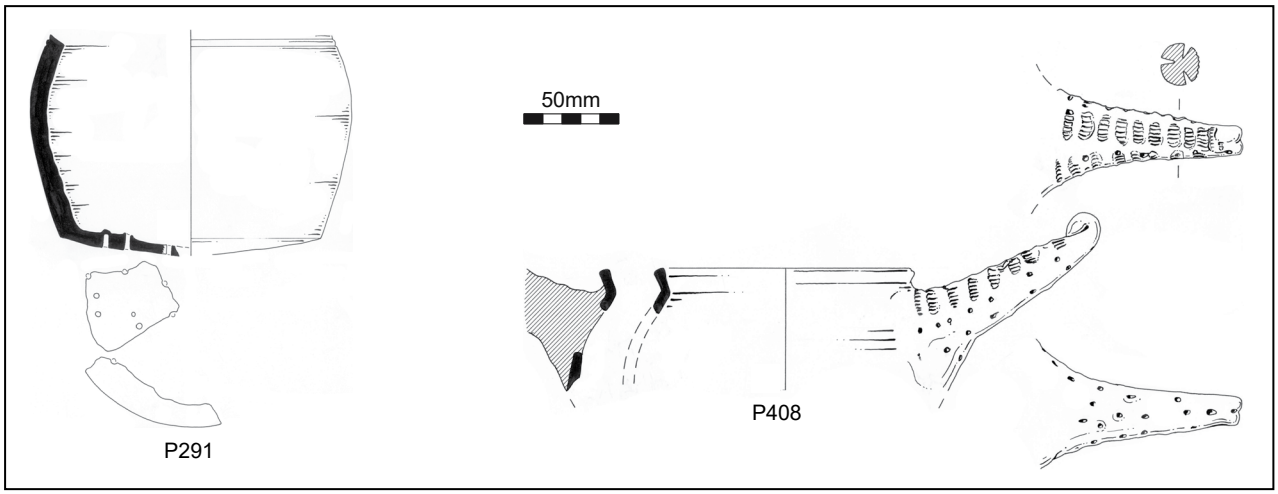


Figure 8.1: Medieval watering pot P291 and pipkin P408. Scale 1:4

occur. There do not, however, appear to be more broken examples of finer-walled vessels, as might be expected.

Specialist ceramic cooking pots and tableware are poorly represented, totalling approximately 1% of the diagnostic assemblage. Vessels associated with cooking are two dripping pans, indicating spit roasting, and two pipkins (Figure 8.1: P408), which were used for cooking dishes such as sauces (Slowikowski 2013). Tableware comprises two salts (suggestive of status?), a drinking jug, and a bottle. Two spouted pitchers also occur.

Use (Table 8.8)

The presence of sooting, residues and wear marks was recorded, although the analytical value of this exercise is questionable given a lack of complete vessels about which to make useful observations. That functional attributes are more prolific on sandy wares is largely a reflection of the ratio of shell-tempered to sandy examples (1:6). Sooting is evident in some form on 74% of the pottery (by vessel count), indicating heating. A sooting pattern observed on rims suggests the use of lids, which, given their absence from the ceramic assemblage, must have been either wooden, or perhaps stone. Decorated and more elaborate vessels, many occurring in finer fabrics, are unsooted, perhaps suggesting their exclusive use as tableware.

Thick, internal sooty residues, possibly resulting from the unintentional burning of vessel contents during cooking, are visible on 7% of the assemblage. Flaky off-white (limescale?) residues, the result of boiling or the long-term storage of liquids, occur on the interiors of 13%. Pitted interiors, largely evident on softer shelly vessels, and perhaps indicating long-term use, were recorded on 4% of the assemblage. One body sherd from a Brill/Boarstall jug has a post-firing drilled hole, possibly representing an attempted repair. None of the other vessels shows evidence for modification.

Table 8.8: Functional attributes by ware group

Attribute	Sandy wares	Shelly wares	Total	% Total
Sooting (general)	442	22	464	74.8
Sooty residue (interior)	41	4	45	7.2
White residue (interior)	77	7	84	13.6
Interior wear/pitting	4	21	25	4.1
Wear (base)	2	-	2	0.3
Total	**566**	**54**	**620**	**100**

A study of the distribution of vessels with functional attributes proved fairly inconclusive, as no particular concentrations occur to suggest specific tasks or activities. Most rubbish would have been collected in temporary heaps or middens and disposed of during the process of manuring the fields. Additionally, broken pottery may have been a useful hardcore material for reinforcing frequently trampled and wet land.

Late medieval / early post-medieval (Period 7)

The assemblage from this period totals 2107 sherds (27.5kg) from 1328 vessels. Features that were contemporary with this period accounted for 59% of the material, with the remainder occurring as either residual or intrusive finds, or within unstratified deposits.

Table 8.9: Late medieval pottery fabrics (all periods)

Fabric	Common name	No. sherds	% Sherd	Wt (g)	MSW (g)
C66	Late medieval/transitional Brill / Boarstall type	15	0.7	73	5
E01	Late medieval reduced ware	834	39.6	10,344	12
E01A	Late medieval reduced ware (Everton type)	47	2.2	761	16
E01C	Vesicular late medieval reduced ware	187	8.9	1628	9
E01D	Late medieval reduced ware (red margins)	484	23.0	5636	12
E02	Late medieval oxidised ware (gritty)	244	11.6	4021	16
E03	Late medieval oxidised ware (smooth)	296	14.0	5048	17
Total		**2107**	**100**	**27,511**	-

MSW: mean sherd weight

Fabrics (Table 8.9)

Seventy-four percent of the assemblage comprises unglazed late medieval reduced wares (type E01 and variants). Late medieval reduced wares were identified as a distinctive South and East Midlands type by Moorhouse (1974), and dominated the local pottery industry from the mid-14th to 16th centuries (Slowikowski 2011). Several production sites are known throughout Bedfordshire (Everton, Flitwick, Riseley, and Heath and Reach), Buckinghamshire (Great Brickhill), and Northamptonshire (Higham Ferrers). Petrographic analysis has suggested Everton, Great Brickhill and Flitwick as sources for the material from Stratton (Quinn 2010a), with the proximity of the Everton kiln (*c.* 7km north of the site) pointing to this as the most likely of the three. Analysis of samples from all local kiln sites producing late medieval reduced wares (Vince 2005a; 2005b; 2005c; 2008; 2011) has shown that the wares are closely related petrographically, due to the exploitation of similar raw materials (Lower Cretaceous sand, glacial deposits with flint and chalk, and Gault clay). Despite the existence of certain petrographic characteristics peculiar to some of the kiln sites, distinguishing between the products of the six sources at consumption sites can be problematic.

Oxidised wares E02 and E03 account for 25% of the assemblage and represent a tradition which existed alongside the reduced wares, persisting into the 16th century. Oxidised to a bright orange colour, and frequently glazed, the wares are likely to derive from a number of sources. There are similarities between gritty type E02 and pottery of the same date recovered from kilns at Glapthorn, Northamptonshire (Johnston *et al.* 1997). A source for smooth type E03 may be Potterspury, also in Northamptonshire but at the opposite end of the county (Paul Blinkhorn pers. comm.), although no petrographic analysis was undertaken to confirm this.

Late medieval / transitional products from kilns at Brill or Boarstall, Buckinghamshire (type C66) account for less than 1% of the assemblage. They are highly fragmented (mean sherd weight 5g) in comparison with the more robust reduced and oxidised wares, which, with the exception of type E01C sherds, all have a mean sherd weight in excess of 12g.

Forms and Use (Table 8.10)

A limited range of wheel-thrown forms occurs, comprising mainly bowls/pancheons, jars, and jugs. It is interesting that bowls and jars, each totalling 34% of the diagnostic assemblage, are equally represented. Jars traditionally ceased to be the prevalent form on later medieval consumption sites, when metal cooking vessels were often used in place of ceramic

Table 8.10: Late medieval forms by vessel count (all periods)

	Vessel form			
Fabric	**Bowl**	**Jar**	**Jug**	**Other**
C66	-	-	6	
E01	21	20	23	Cistern (5) Dripping pan (1)
E01A	-	16	1	
E01C	5	15	6	Watering pot (1)
E01D	29	15	8	
E02	15	10	8	
E03	12	6	17	Cauldron (1) Cistern (1)
Total	**82**	**82**	**69**	**8**
%	**34.0**	**34.0**	**28.7**	**3.3**

examples. Non-ceramic household items are, however, poorly represented within the Period 7 assemblage, comprising a copper alloy cauldron/skillet and a small number of copper alloy bowls, and glass vessels (Table A5.49). The recyclable nature of metal cooking pots and tableware can perhaps, in part, account for the dearth of such items on the site.

Jars rims are either everted or occasionally right-angled and range between 180mm and 200mm, suggesting a uniformity of size. Bases are generally flat or slightly sagging. Fewer late medieval jars are sooted, in comparison with the earlier examples, perhaps suggesting a primary function for storage as opposed to cooking. Body decoration is rare, being restricted to incised single or multiple horizontal grooves and horizontal combing.

Bowls are generally shallow and straight-sided, with knife-trimmed bases. Rims are simple everted, externally thickened, or flat-topped and rectangular or square. Diameters range between 260mm and 380mm, with most in excess of 300mm. Variation in size suggests that they fulfilled a variety of functions, from food preparation and general household use to dairying.

Jugs represent approximately 28% of the assemblage, and generally have angular rims (diameter 90–120mm) and short necks. They have wide strap handles, which occasionally spring directly from the rim. The handles are either plain, or decorated with stabbed, slashed or thumbed motifs. One type E01 example is impressed with deep circular stamps. Type E02 jugs are undecorated apart from an external glaze, dark green when oxidised and purple on reduction. Thick-walled jugs are the sole diagnostic type C66 form. They have a generous dark, olive or green/brown glaze, mainly occurring on the upper two thirds of the vessel.

Although occurring in greater quantity than in the Period 6 assemblage, specialist ceramic forms are still poorly represented, totalling approximately 3% of the diagnostic pottery. They comprise six cisterns, a sprinkler watering pot (Figure 8.1: P291), a cauldron (Figure 6.14: P130), and a dripping pan. The latter is handmade, with knife trimming round the base angle.

Ceramic building material

Jackie Wells

Introduction

The excavated assemblage totals 817kg of medieval and post-medieval brick, floor and roof tile; 41kg of Roman building material; and 4.7kg representing undiagnostic fragments of indeterminate date. Unphased material totals 14% of the assemblage (by weight) and comprises

Table 8.11: CBM quantification for Phased deposits

Period	Phase	Roman		Med and Post-med		Indeterminate			
		No.	Wt.	No.	Wt.	No.	Wt.	Total No.	Total Wt. (g)
2	2	-	-	-	-	1	17	1	17
3	3	57	11,527	13	1296	18	1370	88	14,193
4	4	5	1620	-	-	3	65	8	1685
	4a	8	1414	12	1262	6	295	26	2971
	4b	23	3435	3	154	9	319	35	3908
5	5	16	5154	40	4120	6	114	62	9388
	5a	40	4958	3	75	4	193	47	5226
	5b	5	1215	6	488	3	25	14	1728
6	6	26	4229	693	66,701	16	654	735	71,584
	6a	2	252	67	5896	-	-	69	6148
7	7	20	2407	4583	401,076	9	339	4612	403,822
	7b	19	3769	701	54,054	8	394	728	58,217
8	8	3	467	1822	163,136	43	570	1868	164,173
Total	**Total**	**224**	**40,447**	**7,943**	**698,258**	**126**	**4355**	**8293**	**743,060**
% Total	**% Total**	**2.7**	**5.4**	**95.8**	**94.0**	**1.5**	**0.6**	-	-

Table 8.12: Roman CBM quantification by fabric type and form

Fabric	Tegula		Imbrex		Flue		Brick	
	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt. (g)
F1 (45%*)	49	9490	20	3468	11	1494	27	6898
F3 (3%)	4	1282	2	183	-	-	-	-
F4A (41%)	70	8583	4	718	2	229	23	4708
F5 (11%)	24	2588	1	382	-	-	3	963
Total	**147**	**21,943**	**27**	**4751**	**13**	**1723**	**53**	**12,569**

* denotes % of Roman wares (by fragment count)

material of both Roman and post-Roman origin. The stratified assemblage is quantified by phase in Table 8.11, which shows that the bulk of the material was associated with late medieval / early post-medieval features assigned to Period 7.

Assemblage by date

Roman

Roman building material constitutes 3% of the total assemblage, and occurs in four fabrics (Table 8.12). Sand-tempered types F1, F3 and F4A are largely indistinguishable from fabrics used for the manufacture of post-Roman tiles and bricks. Form has, therefore, been the determining factor in the recognition and classification of sand-tempered Roman types. Shelly tiles (type F5) are exclusively Roman in form.

Although often abraded, the Roman building material is robust, with a mean fragment weight of 180g – almost double that of the medieval examples. Forms are standard, with 73% of the assemblage comprising roof tiles, predominantly tegulae (147 fragments), ranging in thickness between 16mm and 30mm. No complete examples survive. Seven tegulae have shallow rectangular flanges, and three have knife-cut rebates. The majority are knife-trimmed, either on the flanges or on the underside towards the edges, and have finger-smoothed or wiped surfaces. Three tiles have semi-circular combed decoration, and one has a signature, comprising impressed concentric rings. The 27 imbrex fragments range in thickness between 13mm and 22mm.

Some 13 pieces of flue tile (5%) were identified, ranging in thickness between 16mm and 19mm. One example has a knife-trimmed edge. Eleven have combed linear or wavy keying patterns, and one has a combed herringbone motif. A single piece of roller-stamped flue tile also occurred.

Fifty-three fragments of brick and/or floor tile constitute 22% of the assemblage and range in thickness between 31mm and 48mm. Brick, in common with tegulae, could be usefully reused. Two pieces bear signatures in the form of finger-impressed concentric rings.

Residual Roman building material was randomly distributed and redeposited across the site in the disuse fills of pits, wells, SFBs and ditches. The largest concentration comprises 58 fragments (11.6kg) recovered from early Anglo-Saxon settlement L5 (Period 3), and includes 3.2kg associated with SFB G3180 and 4kg reused as lining material for hearth G233. Most other deposits are represented by only one or two fragments. The pattern of brick and tile distribution is broadly comparable with that of the small quantity of Roman pottery.

Medieval and post-medieval

Medieval and post-medieval building material comprises approximately 95% of the assemblage (8800 fragments: 816.9kg). The post-Roman brick and tile is more fragmented than the material of Roman date, reflected in a lower mean fragment weight of 93g.

Nine predominantly sand-tempered fabric types were identified, with the bulk of the material occurring in oxidised sandy fabric F1 (Table 8.13). The majority of the building material is likely to have been produced locally: quartz inclusions found in the sandy fabrics are thought to derive from the Greensand Ridge. Although no production centres are known, sand-tempered tiles may have been manufactured within the vicinity of the ridge, which lies approximately 10km to the

north of Stratton. Approximately 6% of the assemblage occurs in Gault Clay, deposits of which run through the county from Leighton Buzzard in the south-west to Wrestlingworth in the north-east (Digital Appendix A3).

Tiles

Roof tiles

Flat

Plain flat roof tiles (8286 fragments: 646.2kg) total 95% of the diagnostic assemblage, and occur in six fabric types (Table 8.13). All flat roof tiles have roughened undersides, indicating their manufacture in a sanded mould, and the upper surfaces of many examples bear marks consistent with the scraping of the clay to produce a uniform thickness. Only four examples were sufficiently intact for measurements of length to be obtained: two measure 280mm, and single examples measure 265mm and 245mm. The survival rate of fragments retaining measurable widths is greater. These range between 140mm and 175mm, with a mean width of *c.* 155mm, and one particularly narrow example of 126mm. Thickness ranges between 10mm and 20mm, with a mean thickness of *c.* 16mm. Measurements of width and thickness are reasonably consistent, irrespective of fabric type, and are broadly comparable with those confirmed by statute in AD 1477 (17 Edw IV, c iv), introduced to enforce uniformity in tile size (Cherry 1991: 195). Lack of standardisation is likely to reflect the localised nature of production, with manufacture by different craftsmen and production in separate batches or firings.

Attachment of flat roof tiles at Stratton was by wooden pegs or iron nails. No nib tiles occurred. The use of peg tiles is known to have been well established in south-east England by the beginning of the 14th century (Drury 1981: 131). Perforations, occurring in pairs on the upper part of the tile, were crudely made prior to firing, and are either round or square, sometimes slightly tapering. The majority are circular, ranging in diameter from 10mm to 14mm. Square holes are often set diagonally and measure *c.* 15 × 15mm. The means of attachment to the roof supports may provide a very generalised indication of date – wooden pegs were most common during the earlier medieval period, due to their easy preparation and availability, and may have been replaced during the later medieval period by more durable iron nails, which required less maintenance. The likelihood of their contemporaneous use cannot, however, be discounted. Iron nails occurred in only small quantities, and none was positively identified as a roofing nail, suggesting the reuse of such nails following the collapse or dismantling of a roof.

No tally marks or other deliberate impressions relating to manufacture were identified. Accidental impressions are rare, comprising mainly the ubiquitous paw prints of dogs and cats. A number of tiles have indented borders resulting from attempts by the tiler to ensure that the clay filled the mould. Fingerprints occur on

Table 8.13 Medieval and post-medieval CBM quantification by fabric and form

Fabric	Flat Roof		Ridge		Brick		Floor	
	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt. (g)
F1 (89%*)	7450	585,854	84	18,313	295	104,533	11	2150
F2 (6.5%)	525	33,750	2	83	38	24,895	5	1680
F3 (0.9%)	71	5106	3	261	10	2361	-	-
F4A (0.1%)	9	613	1	434	2	164	-	-
F4B (0.9%)	78	7075	-	-	3	340	3	467
F6 (2%)	153	13,814	1	257	14	4111	-	-
F7 (0.1%)	-	-	-	-	-	-	6	990
F8 (0.1%)	-	-	-	-	-	-	2	293
F9 (0.4%)	-	-	-	-	-	-	34	9451
Total	**8286**	**646,212**	**91**	**19,348**	**362**	**136,404**	**61**	**15,031**

* denotes % of post-Roman wares (by fragment count)

the surfaces and edges of 91 fragments, probably made when tiles were removed, in a plastic state, from the moulds. Four tiles have been modified to create sub-rounded discs/counters/lids, *c.* 40–50mm in diameter.

A total of 29 tiles are sooted and/or burnt, suggesting proximity to a chimney or smoke-hole. A small number have mortar on their broken edges, indicating either the use of broken tiles, or the repair of tiles which had broken *in situ*. Some examples with mortared undersides may suggest attempts at weatherproofing. The relatively few repaired examples suggest, however, that in the event of breakage, tiles were more likely to have been completely replaced. This may indicate a readily available supply of new material, and a possible measure of the prosperity of the site. Constant damage to roof coverings would have necessitated the stockpiling of replacement materials (Moorhouse 1988: 37). A proportion of the broken fragments may have been built into walls without ever having functioned as roofing material.

Ridge

Eighty-seven fragments (18.4kg) were identified as ridge tiles. They occur in four fabrics, predominantly type F1. Thicknesses for all fabric types are broadly comparable and range between 15mm and 26mm, with a mean thickness of 21mm. No ridge tiles are complete, making it impossible to determine original decorative form, and none is glazed. Ridge tiles would have been more prone to breakage than flat roof tiles, due to their vulnerable position on the ridge line, and would have required more frequent, costly replacement. The small quantity and lack of intact examples may suggest the dismantling and deliberate removal of whole ridge tiles for reuse elsewhere. Fragments have localised areas of mortar on their undersides, and on the original ends of some examples, indicating where they were placed end to end.

Two pieces (738g) were recovered of rounded, slightly tapering roof tile which differ from ridge tiles in both thickness and curvature. Both examples have nail holes at their narrowest end. Coarse sanding on the concave surfaces of the fragments suggests that they do not represent gutter tiles. They may derive from curved tiles of early medieval date, although an absence of flanged examples with which they would have been used in conjunction suggests that this is not the case. Ranging in thickness between 13mm and 15mm, they may simply represent atypical ridge tiles.

A single curved, perforated tile fragment in sandy fabric type F1 has been identified as a hip tile. The fragment is sub-triangular in plan; of the two surviving edges, one is deliberately knife-trimmed to form an acute angle with a sanded, moulded edge. In practice, the tile would have rested on the hip line of a roof.

Two small pantile fragments (142g) with characteristic S-shaped profiles, likely to be of 17th- or 18th-century date, were also collected.

Floor tiles

A total of 61 fragments of floor tile (15kg) were identified, comprising 30 glazed rectilinear tiles and 31 unglazed paviours. None remained *in situ*. Their presence indicates the use of tiled floors; however, the small quantity recovered suggests that they were lifted and reused elsewhere when buildings fell into disuse. None of the floor tiles displays evidence of burning or sooting, suggesting that they were probably not used as hearth tiles.

Glazed examples occur in a range of four colours. Twenty tiles have a basic lead glaze applied over a white slip, producing a uniform yellow or variable brown and yellow striped surface (14 and 6 examples respectively). The addition to the lead glaze of copper or iron has produced tiles with dark green or black surfaces (respectively seven and three examples). Most tiles have slightly bevelled, knife-trimmed edges, while the few examples with straight edges are moulded and sanded. No evidence of keying was recorded on sanded tile bases. Three examples have template nail holes in their surfaces, indicative of a specific method of manufacture (Eames 1980: 18).

Floor tiles occur in oxidised sandy fabrics (types F1, F2, F4B and F7–9), the majority surviving in good condition and displaying little evidence of wear. Glazed tiles range in depth between 35mm and 40mm, and unglazed paviours between 22mm and 40mm. The dimensions of the latter are consistent with brick paviours recovered from excavations in Bedford (Baker and Hassall 1979b, 255).

Brick

Brick fragments (362: 136.4kg) occur in six fabrics, with sand-tempered fabric type F1 predominating. The extent of firing is variable; most bricks are not overfired, although a few examples with vitrified surfaces were noted. All examples are stock-moulded and bear attributes characteristic of this process, including coarse moulding sand on most faces; occasional surface features such as straw impressions; greater thicknesses of clay around the edge; and some 'oozing' around the undersides. In many cases, the trimming of excess clay from the mould has resulted in longitudinal scoring along the upper surfaces. As with the flat roof tile, some fragments bear finger impressions on their surfaces

and along their edges, made either when bricks were moved in a plastic state, or when they were held during the process of smoothing of the exterior.

Recordable dimensions were mainly restricted to thickness and width. Thicknesses for all fabric types are variable, although broadly comparable, the widest range occurring in type F1 bricks, which fall between 30mm and 62mm in thickness. The greatest uniformity was noted among type F6 examples (48–50mm). The mean brick thickness across all types is approximately 50mm. Widths range between 105mm and 110mm, which is broadly consistent with the dimensions of bricks dating from the late 13th century onwards. The earliest brick-built structure in the county, Someries Castle near Luton, dates from *c.* 1448 (Cox 1979: 11), although the Stratton buildings are of later date, as indicated by the pottery assemblage. Three complete examples broadly fit the dimensions of an AD 1571 Statute Brick: 9 × 4½ × 2¼ inches (229 × 114 × 57mm) (Brunskill 1990: 37). As with flat roof tiles, variable dimensions suggest manufacture by different craftsmen, using a variety of moulds.

A single example of a complete shaped brick in sandy fabric type F1 was recovered, weighing 1.47kg and measuring 200 × 112 × 54mm. The brick is moulded, with one curving long edge and one angled short edge. Both faces are mortared, and the upper surface has bevelled edges which bear traces of a red-orange plaster/mortar paint or wash. It is likely that this type of brick was designed for use in a fireplace or similar structure.

Other artefacts

Holly Duncan

The 'Other Artefact' assemblage covers a range of periods from at least the Mesolithic to the 18th century, with a Palaeolithic handaxe (OA357) going back even further in time. The Mesolithic to early Neolithic period is represented by a flint assemblage that includes both debitage and tools: the former comprises ten blade cores and 81 blades, including truncated, denticulated and cutting examples; while the latter consists of tools such as a tranchet axe (OA358), microliths (OA368–369) and a leaf-shaped arrowhead (OA352). It is likely that some of the 22 scrapers also date to this period. Late Neolithic to early Bronze Age debitage includes 42 flake cores and 244 hard-hammer-struck flakes, including three retouched flakes and a cutting flake, while tools from this period comprise transverse and barbed-and-tanged arrowheads (OA353–356), two thumbnail scrapers, a plano-convex knife (OA359), and a possible knife or sickle (OA361). The vast majority of the flint assemblage was redeposited, either occurring in fills of later features, or recovered from ploughsoil (see Table 8.14); only the chisel arrowhead, end scraper and nine pieces of debitage associated with Peterborough ware from pit G5066 were contemporary and may represent a 'Limited Activity Location' (Boismier 2003: 2).

Table 8.14: Quantity of phased flint by Period

Period		Quantity	%
1	Neolithic to Bronze Age	15	2.91%
2	Early Iron Age	43	8.33%
3	Early Anglo-Saxon (c. AD 400–600)	30	5.81%
4	Middle Anglo-Saxon (c. AD 600–850)	74	14.34%
4	Late Anglo-Saxon to Anglo–Saxon (c. AD 850–1150)	164	31.78%
6	Medieval (c. AD 1150–1350)	51	9.88%
7)	Late Medieval (c. AD 1350–1550)	90	17.44%
8	Post–medieval (c. AD 1550–1750)	2	0.39%
9	Modern (c. AD 1750–present)	47	9.11%
Total		**516**	**100.00%**

Considering that the excavations covered 12ha, the flint assemblage is fairly modest. No clear concentrations which might indicate permanent residential locations or activity loci were apparent, but two observations can be made. The southern half of the excavated area produced only 13 pieces of worked flint. This dearth of flint may merely reflect lower activity levels in subsequent periods, for example Periods 3–5, but as this area had extensive evidence for activity during Periods 6–8, the low numbers of flint could suggest that it was infrequently utilised in early prehistory. Within the northern half of the excavations, the area of land noted as being low-lying and watery in the medieval and post-medieval periods (L59, Phase 6; L65, Phase 7; L84, Phase 8) yielded a single flake, which might indicate that this portion of the site was persistently wet, and hence unsuited for even temporary residence.

Excluding the flint assemblage, there are few Other Artefacts that can be typologically dated to the earlier prehistoric period. A fragment of a burnt Old Red Sandstone saddle quern (Phase 5, L28) could be Neolithic to early–middle Iron Age in date, while a fragment of a shale bracelet (OA337) is likely to predate the 1st century BC. The bracelet was found in association with a substantially complete 'bucket-shaped' ceramic vessel of fabric type F01C, suggesting that it dates to the late Bronze Age or early Iron Age. The later Iron Age

is represented by a Trinovantian Thurrock-type coin, dating to *c*. 100–90 BC.

The transitional late Iron Age to early Roman period is represented by brooches and querns. The brooches include a possible iron Colchester brooch and a La Tene III simple wire brooch (OA322); the latter, though current in pre-Conquest contexts, commonly occurs in deposits of the mid- to late 1st century AD. Of similar date is the two-piece Colchester Derivative brooch (OA323). The remnants of six bun-shaped querns of Hertfordshire Puddingstone span the later Iron Age into the early 2nd century AD; all were residual in deposits of Periods 5–7 and 9.

Roman artefacts dating to the 2nd century and later are marginally better represented. An enamelled disc brooch (OA324) found within the ploughsoil (Period 9) dates to the 2nd century, while an iron socketed knife OA135 may belong to the earlier half of the Roman period. A whetstone of Kentish Ragstone (OA165), although found within an early Anglo-Saxon feature, is likely to be of Roman date: the use of this stone type in Roman Britain is well-known, but it was little used in subsequent periods (Moore 1978: 69, 72). Of the 18 Roman coins identified, 12 date to the 4th century, and over half of these belong to the second half of the 4th century. Spindle whorl / gaming piece OA383 was created from the modified base of a Roman beaker (ceramic fabric type R06c), though it is unclear whether this was modified in the Roman or in the medieval period, where it was eventually deposited. Three sherds from Romano-British glass vessels were found residually within deposits dating to the late Anglo-Saxon period. Further hints of Roman activity lie within the large, but frequently fragmentary lava quern assemblage. At least three of these fragments are thought to date to the Roman period, two from phased deposits (Periods 5 and 9) and one from an unphased deposit.

The excavations did not reveal any evidence of Roman settlement at Stratton, and the finds of Roman date are likely to have come from a nearby settlement beyond the excavated area. There was also a tendency during the Anglo-Saxon period to collect and sometimes modify Roman artefacts, and this may account for at least some of the Roman-period finds from Stratton. This trait is illustrated by the Kentish Ragstone found in SFB G3174 (Phase 3) and the socketed knife (OA135) recovered from SFB G3155 (Phase 4b), while the same is presumably true for the pierced coin of Constans found redeposited in Phase 5a.

Although radiocarbon-dating has shown that the Anglo-Saxon settlement at Stratton was established perhaps as early as the start of the 5th century AD (cf. SFB G3163, Period 3), the lack of annular loom weights and the presence of at least one intermediate loom weight suggest that the settlement was only small prior to the 6th century. There are a few Other Artefacts which may relate to earlier activity: cruciform brooch OA325 (Period 9), disc brooch OA326 (Period 5), single-sided composite triangular-backed comb OA341 (Period 3) and double-sided composite comb OA338 (Period 3) all have a suggested date of the late 5th to 6th century. The majority of the objects, however, cannot be more closely dated than the early–middle Anglo-Saxon period: these include up to nine spindle whorls of form A, with central perforations of 9mm or less (e.g. OA99 and OA103–105); five cigar-shaped, or double-ended, pin beaters (e.g. OA109–110); two pairs of tweezers (OA347–348); and an amber bead (OA335). Knives of Ottaway form A1 (Ottaway 1992) could also date to the early–middle Anglo-Saxon period, but this blade form continued in use into the Anglo-Saxon period.

The Other Artefacts assemblage from Period 3 deposits indicates that home-based textile processing and production were carried out during the early Anglo-Saxon period at Stratton, a trait shared with most Anglo-Saxon settlements. Limited evidence of ironworking was recovered, suggesting that only occasional repairs to tools were carried out. The presence of antler and bone artefacts could imply that these items were made within the settlement, but the absence of related off-cuts or waste means that this remains conjecture. Grain processing is hinted at by fragments of Millstone Grit rotary quern. The absence of tools, whether for crafts or agriculture, does not necessarily signify that other crafts or agricultural activities were not carried out: it could just be a reflection of the relative expense of such items, and hence the greater care bestowed upon them. It may also suggest that Stratton's early Anglo-Saxon inhabitants had relatively modest means.

The middle Anglo-Saxon period, represented by Period 4, witnessed an expansion in settlement area and structure types, and a greater number of Other Artefacts. Similarities with Period 3 can be seen, however, especially in the craft activities undertaken: evidence was recovered of ferrous smithing, textile processing and production, wood-working (L23), and off-cuts indicative of antler and bone working. Grain processing is represented by instances of lava quern. Crop cultivation is evidenced by palaeoenvironmental indicators, just as in Period 3, but no agricultural tools were found.

Although the fundamental image of a self-sufficient 'small-holding' economy remains constant from Period 3, larger 'hall-like' buildings and the presence of imported goods suggest that some occupants had started to acquire a degree of disposable wealth. The most prosaic of the imported goods comprised quern

stones of lava. Although the querns demonstrate a practical need for grain processing, the fact that the stone was imported from a great distance, despite the availability of suitable material closer to hand, has led to the suggestion that lava querns may be a reflection of higher status (Wastling 2009a: 246). The sherds of imported 8th–9th-century globular glass beakers (Phase 4a, L13, OA60–62), although few in number, do indicate that at least one resident had the financial ability to procure exotic and valuable items.

The imported querns and the glass also indicate access to a market or network of traded goods and the mechanism required to purchase such goods. The coin of Egberht Praen (AD 796–98), although recovered from Period 7 deposits, is most likely to have derived from activity in Period 4 (L15 or L17). Coins of this period are rarely found on rural sites, perhaps due to the fact that 'South Humbrian' English coinage consisted of fewer coins of higher individual value and as such were less commonly lost and abandoned (Archibald 2009: 405). Its presence does demonstrate that at least some residents engaged in monetary trade.

The presence of high-value items, even in limited numbers, implies differing financial ability and presumably status within the population of middle Anglo-Saxon Stratton. This is also suggested by the variable levels, or lack, of grave goods accompanying burials in cemetery L9 (Period 4a). The use of the cemetery spanned the second half of the 7th century (Table 3.3) and it appears to have been laid out in rows: the main row (G613) had eight burials, the second row (G2886) two, and the third 'row' (G614) just one. Three of the 11 burials contained grave goods (see Table 8.3), two situated in G613, and one in G2886.

Grave 1104 in row G613 contained a 25–35-year-old male (7416), accompanied by a spearhead (OA235) of SP2-a2d (Nielsen 2013: 163–81), an oval buckle (OA264) of Nielsen's BU8 form (2013: 146), two knives of Ottaway's type C1 and C2 (OA143), and a box mount (OA48) (Ottoway 1992). This assemblage suggests that grave 1104 belongs to Bayliss *et al.*'s AS-MF phase of furnished male burials, spanning the second quarter of the 7th century to *c.* AD 685 (Bayliss *et al.* 2013a: 334–6, 460, table 8.2); the inclusion of true weapons during this period was rare and socially restricted (Scull 2009: 422). Grave 1096, on the other side of a gap in the main row of burials, contained a female of 25–30 years of age (7412) accompanied by a T-shaped slide key and suspension ring (OA43), a looped tag (OA288), and an Ottaway type A1 knife (OA136). This burial was not lavishly furnished when viewed on its own, but it is notable in comparison to the four other mature female burials in L9, three of which were unaccompanied by grave goods. Only one other female was buried with a grave good: grave 1107, in the second row of burials (G2886), was accompanied by an Ottaway type C1 knife. The fact that these three 7th-century burials were treated in a different manner from contemporary burials does suggest differences in status, presumably either wealth or social standing within the community.

Settlement activity expanded to the east during Period 5 (late Anglo-Saxon / Saxo-Norman period), but there was a concomitant reduction of activity in the northern area. Fewer buildings may have been newly constructed during this period, but it is likely that some of the Period 4 structures remained in use. Although the finds-recovery rate from phased deposits stayed fairly constant when compared with Period 4 (165 items, compared with 161 from the earlier period), a greater range of objects was present, along with an increase in goods purchased from outside the settlement.

Many of the crafts identified in the early and middle Anglo-Saxon periods continued to be practised in Period 5. Hearth bottoms from L28 and L33 (Phase 5) and L39 (Phase 5b) attest to iron smithing: the quantity of ferrous smithing by-products increased more than two-fold overall when compared with Period 4, although it still remained at a craft level. Woodworking is indicated by iron spoon bit OA133 and possibly by chisel OA126, while textile working, in the form of flax processing, is suggested by a fibre-processing spike. This period also witnessed the change from the warp-weighted loom, indicated by bun-shaped loom weights, to that of the two-beam vertical loom, attested by single-ended 'chisel-butt' pin beaters (e.g. OA111–112). Bone-working at a subsistence level is hinted at not only by a modified sheep tibia (L34, Phase 5), but also by items such as bone skate OA187, buzz bone OA189 and dress pins OA248–249, all of which could have been fashioned on site. Agricultural objects still remained elusive, but a weed hook was found within G5119 in L24 (Phase 5a). Lava remained the stone of choice for querns, with three examples retaining enough traits to attest to grain processing in the 8th century or later.

What is noticeable is an increase in the numbers of goods likely to have been imported. The whetstone of Norwegian Ragstone from L24 is not only an early instance of this imported stone on a rural, inland site, but may also indicate the establishment of new trading links. The fineness of the decoration on handled antler comb OA345 (L41, Phase 5b) suggests that this was procured outside of the Stratton community. As no evidence for non-ferrous casting was encountered in Period 5, dress fittings such as the cast split copper alloy strap end OA299, a biconical-headed dress pin (L38, Phase 5b; also OA244 from Period 8), headless dress pins OA246 (intrusive in Period 3) and RA1452 (residual in Period 6), and hooked tag OA256 (residual from Period

9) are likely to have been purchased further afield. Despite the increase in numbers of imported goods, only one coin is likely to have dated to this period (RA1111, intrusive in Period 4); its condition precludes certain identification, but it might date to the 9th–10th century. Coin finds of this date are relatively rare on archaeological sites and hence this single example is notable.

The intricate two-component copper alloy plating that adorns iron strap distributor OA198 undoubtedly originates from an external source, as do four white-metal-plated prick spurs (OA212, residual in Period 6; OA213–214, Phase 5; and RA1268, Phase 5a), tin-plated iron bridle boss OA199 (intrusive in Period 4) and stirrup terminal OA211 (residual in Period 6). These items not only provide further evidence of trade or commerce, but also attest to the presence of riding horses at Stratton during Period 5 (see also Table 4.6). Horses were considered a luxury during this period, as compared to the more useful cow and oxen, and hence they serve as an indicator of wealth and status (Neville 2004: 2). Further hints of status could be suggested by two items from G5119 in L24 (Phase 5a): the incomplete remains of a leaf-shaped spearhead (RA1262), and a conical arrowhead (OA239). Both items may have had a military function, but it is also possible that they were used in hunting. In either case their presence implies someone of rank, as weapons were previously used to express status in burials, while hunting was considered an elite pastime (Loveluck 2007: 148). It is noteworthy that there was a cluster of horse-related items in the vicinity of L28 (Phase 5) and L38 (Phase 5b), both containing substantial buildings that point towards occupants of some status. The spearhead and arrowhead were found in close proximity to longhouse G5108 in L38 (Phase 5b).

A markedly different settlement layout was evident in the early medieval period, suggesting a transition in Period 6 from a loose network of small farmsteads to a more recognisable village. Although evidence of some of the crafts identified in earlier periods was present, for example small-scale iron smithing in L51, L52 and L58 (Phase 6), the quantity of craft-related items declined, and some crafts such as bone and antler working were barely represented. This decline, however, may well point to an increased reliance upon traded goods, which is perhaps best illustrated by the assemblage of dress fittings and fastenings. Although only 14 such items were found in Period 6 deposits, and about half of these were either residual or intrusive, the total assemblage – including items that were intrusive in earlier periods, residual in later ones or from topsoil deposits – doubles in size. A range of strap fittings, including buckles (e.g. OA272, OA275 and OA276) and strap ends (e.g. OA301, OA302 and OA306), and jewellery, such as brooch OA327 and finger ring OA328, testify to the ability of residents to purchase external goods which might be considered small luxuries. Further proof of trade activity is evidenced by balance arm OA182 and eight coins spanning the 13th century to *c*. AD 1350 (see Table 5.8). Period 6 may have also witnessed a change from processing grain at home to using a more centralised mill. In common with earlier periods, agricultural tools remain limited in number but do include a billhook (OA220).

One of the most significant objects recovered from the Stratton excavations, helmet OA243 (Figure 8.2), came

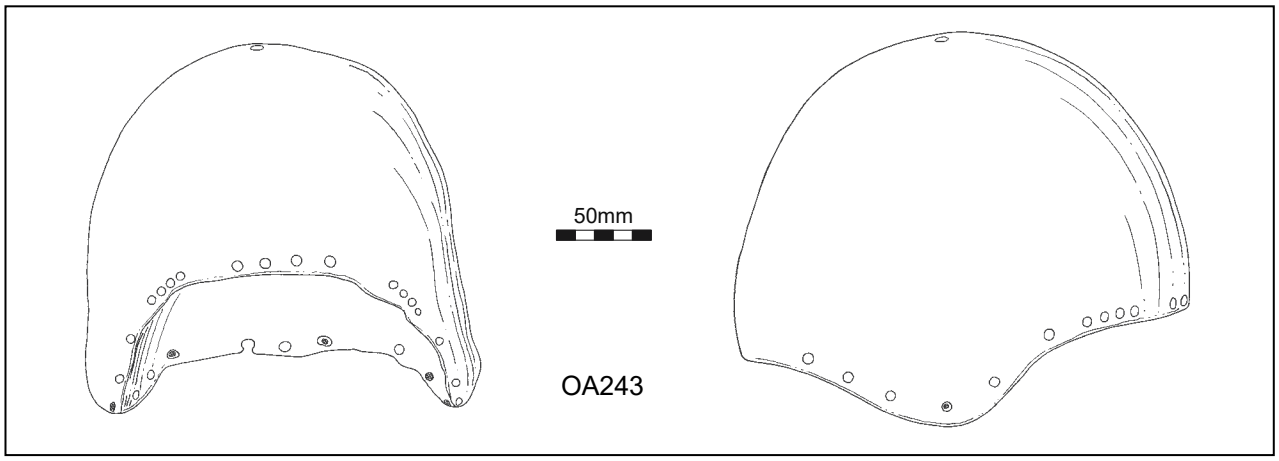
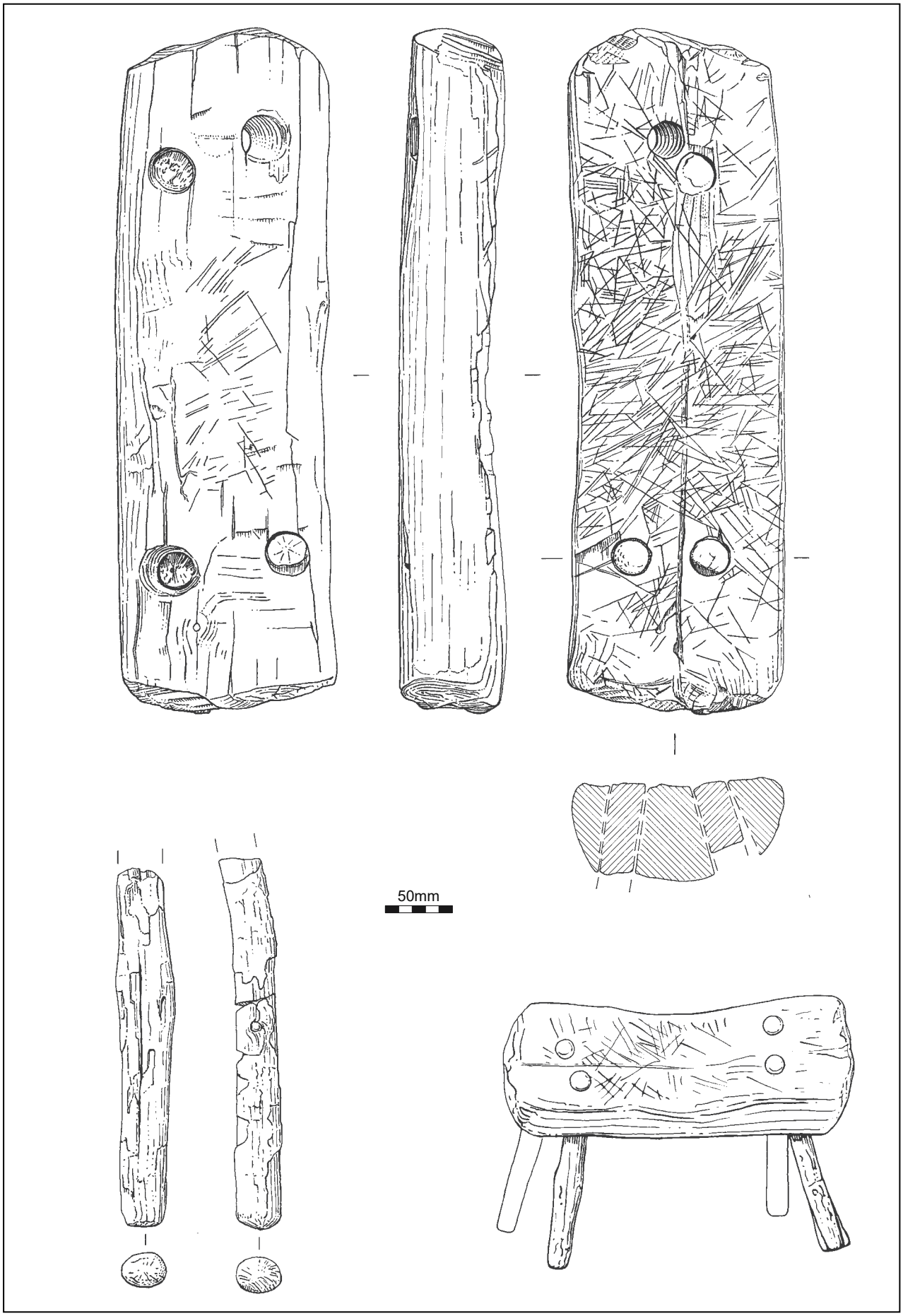


Figure 8.2: Medieval helmet. Scale 1:4

Figure 8.3 (opposite page): Late medieval / post-medieval wooden stool or workbench. Scale 1:4


50mm

from a vertical-sided pit that could not be allocated to a specific phase, although it was located within the area represented by L59 in Phase 6. The date of the helmet is a matter of debate: specialist opinion is divided between an early form of bascinet (*c.* AD 1300–40) and a simple sallet 'skull cap' of the second half of the 15th century (see Digital Appendix A5 for further discussion). It is exceedingly rare to recover a medieval helmet during archaeological excavation, and this factor has also contributed to the uncertainty surrounding the date of OA243. The composition of the helmet, a composite steel-iron-iron-steel sandwich thought to have been formed from a folded and welded billet of iron, is at present unique, but it has to be said that very few medieval helmets have been metallurgically sampled.

Whether the helmet is a bascinet or a sallet, its presence at Stratton and its singular manner of deposition are significant. The manufacture of the helmet would have required not only an armourer or smith of considerable expertise, but also a substantial financial outlay to commission it. This might indicate the presence of a person of wealth and social standing sometime during the earlier 14th to later 15th century at Stratton, which, considering the presence of a moated enclosure, is not surprising. The helmet's presence at Stratton, however, does not necessarily mean that the person who commissioned it was also the one who disposed of it: there are other means of acquiring a helmet, one being as loot from a battle. The manner of the helmet's deposition, placed upright in an isolated pit (the dimensions of which just accommodated the helmet), appear clandestine. Whether someone was attempting to hide the helmet, either to avoid service or to hide a looted possession, remains unresolved.

Unsurprisingly, there are many common traits between the early and later medieval assemblages from Stratton. The same reliance on externally traded goods first noted in Period 6 is more marked in Period 7. Dress-related items are more numerous, for example buckles OA278–280 and OA282–284, buckle plates (e.g. OA287), strap mounts (OA292 and OA295–296) and strap ends (e.g. OA304). In common with Period 6, crafts are poorly represented: occasional smithing appears to have been the main craft undertaken, with a small amount of lead-working probably related to building fittings (flashing, caulking, gutters etc.). Concentrations of Other Artefacts were noted in and around building complex L69 and to a lesser extent moated enclosure L66 (see Tables 6.7 and 6.11), the lower quantities in the latter probably due to the fact that half of this enclosure lay outside of the excavated area. This could suggest that the wealth present at Stratton was focused on these two land-use areas and that surrounding areas may have been holdings of the residents of L66 and L69. Agriculture continued to play a major role, with finds of agricultural hand tools concentrated in L69 and moated enclosure L66. The presence of horses is indicated by the occurrence of late medieval horseshoes, with examples found in both L66 and L69, and also in the roadside ditches of L80 and within enclosure system L63.

The lower fills of pits G5897 and G5901 in L84, which are believed to have formed near the very start of Period 8 (*c.* AD 1550–1750), nevertheless contained an assemblage of Other Artefacts predominantly dating to the 15th century and the first half of the 16th, including 51 leather shoes (OA309–OA320), a leather costrel (OA83), a leather harness (OA191), wooden bowls (OA80–82), a wooden comb (OA346), a wooden scutching knife (OA97), a lead alloy spoon (OA84) and a copper alloy thimble (OA121). A preponderance of work-related items was contained within the pits, including cobbler's waste, ferrous slag, the large wooden bowls associated with dairying, the scutching knife indicative of flax retting, a spoon bit (OA134) suggestive of woodworking, and a wooden stool or workbench (OA94: Figure 8.3) that shows evidence of its use as a cutting platform. Pit G5901 also had a timber revetment which included two pieces of wood that may have been blades or paddles from a water or scutching mill. This composition strongly suggests that L84 abutted a late medieval craft/industrial zone, presumably located to the east beyond the excavated area; pits G5897 and G5901 may also have been excavated and used during the late medieval period. The original function of these pits is uncertain, but the possibility that they served as flax-retting pits has tentatively been postulated based upon the scutching knife, a flax seed (Digital Appendix A9), the elongated shape of the pits, and their location in a low-lying, watery area.

The post-medieval period witnessed a decline in settlement activity. Extensive quarrying was apparent to the south, although the objects from enclosure ditch G1346 (L82) suggest that a residence may have been maintained in the area, possibly representing continued occupation of the main house in L69 (Period 7). This ditch assemblage includes elements of building fastenings, wrythen-moulded beakers, a coin of Elizabeth I, Nuremberg jettons, rowel spurs (OA215–216) and dress fasteners, all indicative of a date in the late 16th to 17th century. Although the Other Artefacts recovered from the quarry pits include a sizeable residual element, coin evidence indicates that the quarries remained open into the later 18th century.

Most of the land to the north of the quarries (L83) is presumed to have been pasture. Although no structures were uncovered, an assemblage of building-related finds associated with external surface G3385 hints at a building in the vicinity. The dearth of domestic or dress-related items within this assemblage suggests that this structure was not residential in nature.

Reference has already been made to some of the elongated pits in L84, situated to the east of L83. While pits G5897 and G5901 contained a wealth of mainly 15th- and earlier 16th-century finds, adjacent pits G5910 and G5914 produced a meagre assemblage that mostly comprises nails and sherds of glass wine bottles from the mid-17th century or later. Ditch G5529 within the same area contained wine bottle sherds from the mid- to late 18th century. While the wine-bottle sherds attest to the fact that some form of activity continued in this area, the sharp decline in the quantity and range of artefacts indicates that if a late medieval craft quarter did exist to the east of L84, it had either ceased to exist or discarded its refuse elsewhere by the later 17th to 18th century.

Chapter 9.
The vegetational history of Stratton

Wendy Smith

Introduction

The underlying *raison d'être* of the sampling programme at Stratton was that very little direct environmental evidence (plant macrofossils, charcoal/ waterlogged wood, animal bone, insect remains, worked wood, etc.) from rural Anglo-Saxon sites in Bedfordshire existed at the time. Indeed, now over a decade after the excavations at Stratton ended, only one substantial Anglo-Saxon site in Bedfordshire has been fully published at the time of writing: the 1979 excavations at the Liberal Club, Midland Road, Bedford reported waterlogged plant remains from middle and late Anglo-Saxon deposits (Robinson 1986; Hall 2004). Published evidence from the Anglo-Saxon period in the surrounding counties is also limited (Hall 2004): Buckinghamshire (four sites, all in Milton Keynes), Cambridgeshire (six sites), Hertfordshire (no sites) and Northamptonshire (four sites).

Existing Anglo-Saxon environmental results in the 1980s/90s were dominated by urban sites such as London or York. At the time of preparing this overview, 222 archaeobotanical reports on charred or waterlogged Anglo-Saxon plant macrofossils were recorded on the Environmental Archaeology Bibliography (Hall 2004), with as few as a dozen urban centres responsible for 52% of these reports: Beverley (four), Cambridge (two), Chester (six), Hereford (five), Ipswich (four), Lincoln (three), London (13) / City of London (nine), Oxford (nine), Norwich (eight), Southampton (four), Worcester (two) and York (53). In part, this reflects the modern prosperity and development of these cities or towns, which have resulted in many archaeological interventions, but these urban sites also allow study of status (tenements, high-status buildings, etc.), living conditions, and trade contacts, frequently providing lists of exotic imports. All of these have rewarded the effort and expense of environmental sampling, processing and analysis. An extreme example of this might be Coppergate in York (e.g. Walton Rogers 1997), with the Environmental Archaeology Bibliography (Hall 2004) listing a total of 65 reports relating to all classes of environmental remains (animal bone, insects, parasites, moss, plant macrofossils, cereal bran, leatherworking, textiles, woad bacteria, etc.).

Analysis of environmental samples from rural settlements is much rarer. By their very nature, rural sites are less likely to produce a wide range of exotic imports, especially if of relatively low status. Nevertheless, most people living in England during the Anglo-Saxon period occupied rural rather than urban settings. Analysis of environmental remains from such settings is therefore of regional, and possibly national, importance – establishing both the range of crops or collected foodstuffs that ordinary Anglo-Saxons cultivated and/or had access to, and also the character of the countryside.

Environmental sampling during the series of excavations at Stratton between 1991 and 2001 included systematic sampling of archaeological features for environmental remains. Samples for the recovery of charred plant remains from the 1997–2001 excavations were largely unproductive, or came from features that could not readily be dated; this was established either during sample processing at Albion Archaeology or during the formal assessment process. However, two waterlogged late medieval to post-medieval pits from the 2001 excavations were studied for waterlogged plant macrofossils, insects and worked wood.

As a result, this overview will focus on charred and waterlogged environmental samples from the 1991–96 excavations, plus the two waterlogged pits from the 2001 excavation. Although it is unfortunate that sampling from the later excavations was largely unproductive, these phases of excavation represent just 7% of all excavated contexts at Stratton. The environmental results are discussed in detail in Digital Appendices A8–A11 by the individual specialists who examined the material. This overview focuses on general issues for the periods concerned, as well as discussing trends noted in the data. In particular, environmental sampling at Stratton can address issues concerning access to, and utilisation of, woodland resources, the nature of the wider environment, and the cultivation of crops (especially cereal crops).

Environmental sampling at Stratton

Tables 9.1 and 9.2 summarise the full analysis programme for the Stratton excavations. Both charred

Table 9.1: Summary of fully analysed charred environmental samples from all periods of Stratton excavations

	Early Anglo-Saxon (Period 3)	Middle Anglo-Saxon (Period 4)	Late Anglo-Saxon / Saxo-Norman (Period 5)	Medieval (Period 6)	Late medieval / early post-medieval (Period 7)
Charcoal samples	11	41	36	20	15
Charred Plant Remain (CPR) samples*	15 (3)	33 (16)	9	9	4

* The number in parentheses reflects the overall number of samples studied for a period when CPR results for individual samples from the same feature were combined.

Table 9.2: Summary of fully analysed waterlogged environmental samples from all periods of Stratton excavations

Individual Feature (in some cases producing multiple samples)	Insects	WPR**	Pollen	Wood	Soil Analysis
Middle Anglo-Saxon (Phase 4b) well G5115/G5117	X	X	X	X (worked)	X
Middle Anglo-Saxon (Phase 4b) well G5265/G5267	X	X	X	X (worked)	X
Late Anglo-Saxon/ Saxo-Norman (Phase 5) pit G2173	X	X		X	
Medieval (Phase 6) moat G412/G399/G407	X	X		X (worked)	
Medieval (Phase 6) pit G5966	X	X			
Late med / early post-med (Phase 7) pit G5982	X	X		X (worked)	
Late med / early post-med (Phase 7b) revetment near trackway G2347				X	
Post-medieval pit (Phase 8) G5901	X	X		X (worked)	

**WPR = Waterlogged Plant Remains

and waterlogged deposits were encountered, although anaerobic preservation was relatively rare on site. Where waterlogged preservation was identified for individual features, environmental samples were collected for the recovery of plant macrofossils, insect remains and waterlogged wood. Two middle Anglo-Saxon wells also had pollen and soil samples analysed, in addition to waterlogged plant macrofossils (hereafter WPR) and insect remains. Finally, a few lengths of roundwood were recovered from a post-medieval revetment near trackway G2347; they were poorly preserved and, therefore, it was not possible to count growth rings. Sampling for waterlogged plants and insect remains from this deposit proved unsuccessful.

Excavations in the 1980s and 1990s in England frequently suffered from modest sampling programmes, often conducted without a clear research strategy to inform sampling decisions and usually sampling far less than the 40–60 litres of sediment now recommended for the recovery of charred plant remains (English Heritage 2011: 12; see also Stevens 2004: tables 19.1–19.4 for results from 5–20 litre samples from Anglo-Saxon Yarnton, Oxfordshire). Although sampling at Stratton was informed by English Heritage specialists, sample volumes at Stratton were frequently modest.

In total, 646 samples were collected for the recovery of charred plant remains (hereafter CPR) from the 1991–96 excavations at Stratton, with 74% (N = 478) of all samples individually amounting to less than 10 litres of sediment. Over half (N = 393 or 61%) had volumes of 5 litres or less. This could have seriously blighted archaeobotanical sampling results at Stratton; however, in many cases features were sampled several times. As a result, it was possible to combine a number of small samples to generate a larger volume of sediment for various features, thereby producing an assemblage of sufficient size to be reliably interpretable archaeobotanically (see van der Veen and Fieller 1982 for a discussion of the required size of CPR assemblages to reliably reflect a deposit).

The compromise in combining data in this way was a loss of specific data from one part of a feature (a particular excavated spit, portion of a pit, area within

a sunken-featured building (hereafter SFB), etc.) for the gain of CPR data of interpretable value. Thus, even though most of the individual samples are from early or middle Anglo-Saxon deposits, the solution of combining small-volume samples to generate larger CPR assemblages has meant that only three CPR assemblages were analysed from the early Anglo-Saxon and 16 from the middle Anglo-Saxon periods (see Table 9.1). Although not a major assemblage (e.g. 30 samples or more for any period on a site, as recommended in van der Veen *et al.* 2007, 203), given the current state of limited archaeobotanical data for Bedfordshire, these results do provide a crucial baseline dataset to inform future research and sampling strategies and for comparison with future archaeobotanical results from the region.

Samples for waterlogged plant macrofossils were also relatively small (usually 1kg in weight), but frequently generated substantial WPR assemblages of interpretable value. The small sample size does seem to have affected insect assemblages, however: the recovery of relatively meagre insect assemblages is likely to be related directly to the modest sample volumes taken for the recovery of insect remains. Current guidelines (English Heritage 2011, 21) recommend that at least 20 litres of sediment is collected from waterlogged deposits to support the integrated recovery of waterlogged insects (usually requiring *c.* 10 litres of sediment) and plant macrofossils (1–5 litres), with sufficient sediment reserved for further analyses (i.e. to increase sample volume if assemblages are of interest, but modest) or to support other environmental analyses (e.g. pollen and molluscs). In almost all cases the insect remains generated from 1kg samples produced modest or small faunas of limited interpretable value, in the order of 1/4 to 1/10th of the appropriate volume required for the productive analysis of insect remains (e.g. Kenward *et al.* 1985).

Richer insect assemblages, such as the two middle Anglo-Saxon (Phase 4b) well deposits, generated moderately sized faunas (N = 114 / N = 142 individuals respectively). Fortunately, although the sample size for waterlogged deposits was modest in many cases at Stratton, multiple analyses from the same waterlogged context were undertaken, and therefore usefully integrate to attempt 'plausible' landscape reconstructions (*sensu* Caseldine *et al.* 2008) of the surrounding environment between the early Anglo-Saxon and post-medieval periods.

Woodland Resources

The character of Anglo-Saxon woodland is widely debated, with some theorising that English woodlands regenerated after the cessation of Roman control around the end of the 4th century, since they were no longer actively managed. At present this discussion is primarily informed by pollen evidence (e.g. Dark and Dark 1997: 143–4), over other forms of proxy environmental data such as archaeological wood (charcoal / waterlogged wood), plant macrofossils, insects and dendrochronology (e.g. Tyers *et al.* 1994).

Early Anglo-Saxon (Period 3)

Evidence for woodland from the early Anglo-Saxon period at Stratton is extremely limited. Well G5253 produced 47 charred, unidentified buds. It is unlikely that these are all the same species; nonetheless, their presence does suggest that plant stalks, including those of shrubs or trees, were burned prior to their deposition in this feature. Preparing wood for weaving or wicker/hurdle/wattle-making activities would have necessitated stripping buds off young shoots and it is likely that such debris would be discarded into a hearth. It is also possible that roughly worked wood (for example wattles, well-lining hurdles and brushwood well-lining) may have had buds still attached. Certainly a charred hurdle sail (the upright poles within the hurdle, which support the woven rods) was present in the lining in middle Anglo-Saxon (Phase 4b) well G5117.

A single charred hazel (*Corylus avellana* L.) nutshell was noted in SFB G3609. Hazelnuts are obviously an edible foodstuff and it is likely to have entered this dwelling as a collected or purchased food, whose waste (in this case the nutshell) was simply discarded into a domestic hearth and charred. Nevertheless, it is highly probable that this was a locally available foodstuff, possibly collected from nearby hedgerows or scrub/woodland margins; or it could have come in with collected wood for fuel or woodworking, again becoming charred through accidental or intentional burning, most likely in a domestic hearth.

None of the herbaceous taxa recovered in the three early Anglo-Saxon CPR samples is particularly indicative of woodland environments (Digital Appendix A8). In part, this is due to the fact that CPR results are frequently biased toward those plants regularly exposed to risk of charring, such as cereal grain and cereal-processing by-products (e.g. van der Veen and Jones 2006), but one must also acknowledge the fairly radical changes in food consumption since the Neolithic, when charred woodland resources such as wild fruits and nuts often dominate archaeobotanical remains on site (e.g. Jones 2000; Moffett *et al.* 1989; Robinson 2000). By the Anglo-Saxon period, finds of wild fruit and nuts are usually a minor component of most assemblages, with most CPR remains related to cultivated or traded plants. Even the identification of medicinal plants is fraught with difficulty, as many herbs have multiple uses or also can occur as wayside plants or weeds of crops (e.g. Jones *et al.* 1991).

Hand-picked charcoal and charcoal recovered from archaeobotanical samples collected for CPR has yielded data on a wide range of woodland plants in use at early Anglo-Saxon Stratton: ash (*Fraxinus excelsior* L.), blackthorn (*Prunus spinosa* L.), dogwood (*Cornus* spp.), hazel (*Corylus avellana* L.), field maple (most likely *Acer campestre* L., the native *Acer* in Britain), oak (*Quercus* spp.), spindle (*Euonymus europaeus* L., the native *Euonymous* in Britain) and the hawthorn group (POMOIDEAE – anatomically indistinguishable taxa including hawthorn, apple, pear, rowan, whitebeam and service trees) have all been identified in early Anglo-Saxon charcoal assemblages. While most of the wood charcoal was recovered from SFBs, charcoal was also recovered from wells G5252 and G5254, suggesting that domestic rubbish was disposed of by dumping it into wells or other deep features on site, most likely after they had fallen out of use.

Middle Anglo-Saxon (Period 4)

Two Phase 4b wells (G5115/5117 and G5265/5267) were sampled for waterlogged plant macrofossils, insect remains and pollen. In addition, soil analysis was carried out on these deposits and waterlogged wood was also recovered. Notably, insect taxa which are indicative of woodland environments are entirely absent from well G5115/5117 (Digital Appendix A9) and arboreal pollen counts were relatively low (Digital Appendix A12 and see below). Two individuals of *Gracilia minuta*, a beetle which typically occurs in dry willow twigs, were recovered from well G5265/5267, but this beetle can occur in manmade environments such as old wicker items (Hall and Kenward 2003; Kenward and Hall 1995). *Anobium punctatum* (the woodworm) was also identified in these samples (accounting for up to 4% of all terrestrial taxa in G5267); these may have come from timber buildings close to the wells or, indeed, from either the hurdle lining or a wooden superstructure to the well itself. Elder (*Sambucus nigra* L.) leaves and seeds were present in both wells (Digital Appendix A9), suggesting that these shrubs grew in in close proximity, if not immediately adjacent. Certainly, elder pollen was identified in both wells (Digital Appendix A12).

Trace finds of charred hazel (*Corylus avellana*) nutshell were recovered from wells G1095, G5118 and G5248, as well as pit G5285. Like the early Anglo-Saxon finds, it is likely that these were either waste from collected hazelnuts; were accidentally or intentionally charred with hazel wood collected for use as fuel; or represent discarded debris stripped from hazel rods/shoots collected for wattle/hurdle and/or weaving materials. As discussed above, the arboreal pollen counts were relatively poor (accounting for no more than 4% of total land-based pollen; see Digital Appendix A12) with hazel, hawthorn (*Crataegus* spp.) and oak (*Quercus* spp.) pollen grains tending to be more frequently observed than alder (*Alnus* spp.), birch (*Betula* spp.), willow (*Salix* spp.) or elder (*Sambucus nigra* L.). Honeysuckle (*Lonicera* spp.) pollen was noted in small quantities. Well G5267 had the same range of arboreal taxa as well G5117, but also included small quantities of beech (*Fagus sylvatica* L.) pollen and trace counts of bryony (*Bryonia* spp. – a climbing vine) pollen. Soil analysis (Digital Appendix A12) established a relatively high input of ashes into both well deposits, which may suggest that such features were used for the disposal of domestic rubbish once they had fallen out of use.

Waterlogged wood (primarily hazel, oak, field maple, dogwood and hawthorn group) was recovered from hurdle linings in wells G5115/G5117 and G5265/G5267, and Gale (Digital Appendix A11) argues that these were most likely cut from local trees and shrubs, giving clear evidence in several cases for coppicing. Notably, it appears that rough brushwood was also used to line one well (G5265), while the range of taxa used for hurdles suggests local construction – hurdles in many cases were probably constructed *in situ* with available materials. The hurdle used in the recut (G5117) of well G5115 is somewhat different; it was entirely constructed of hazel, which suggests (Digital Appendix A10) that this may indicate pre-fabrication (i.e. hurdles constructed in an area of hazel coppice and sold for a range of uses, such as fencing, animal pens, well linings, etc.).

Charcoal collected from Period 4 deposits at Stratton (Digital Appendix A11) includes the same range of taxa as in the early Anglo-Saxon phases, but expands to include hornbeam (*Carpinus betulus* L.), ivy (*Hedera helix* L.), holly (*Ilex aquifolium* L.), blackthorn (*Prunus spinosa* L./*Prunus* spp.), willow/poplar (SALICACEAE), elder (*Sambucus nigra* L.), gorse/broom (*Ulex* spp. / *Cytisus* spp.), elm (*Ulmus* spp.) and wayfaring tree / guelder rose (*Viburnum* spp.). The CPR remains from the middle Anglo-Saxon deposits at Stratton primarily represent crop-processing waste (see discussion regarding this trend for the early Anglo-Saxon period above); however, trace finds of charred, unidentified buds, fruit/nuts and twigs were noted in several samples from this period. Indeterminate charred gorse/broom seeds were noted in Phase 4b well G5248 and pit G5258, and charred elder seeds were recovered in low numbers in seven middle Anglo-Saxon deposits. Finally, Phase 4b well G5251 produced 50 unidentified leaf fragments which could have come from a wide range of herbaceous plants, shrubs or trees. As a result, this find could be classed as inconclusive, but does suggest deciduous vegetation either in the immediate environment of the well or the general vicinity.

One remarkable find of 28 charred fragments of walnut (*Juglans regia* L.) burr wood was made from middle

Anglo-Saxon hearth G3632. Walnut is believed to have been introduced to Britain by the Romans (e.g. van der Veen *et al.* 2008) and finds of walnut in the Anglo-Saxon period are almost exclusively at urban sites such as York (Hagen 2006: 60; Tomlinson and Hall 1996). These fragments could have resulted from either pruning or management of a local walnut tree or off-cuts of imported wood purchased for wood-working. Either scenario is plausible, and, because the wood is clearly burr wood (the point where a branch joins a tree or where disease/injury causes unusual growth patterns and the normal structure of tree rings can become quite warped), it seems likely that this 'waste' material was then used for fuel in hearth G3632.

Walnut is a relatively long-lived tree, possibly living for as long as 200 years. However, the middle Anglo-Saxon period spans 250 to 450 years after Roman abandonment of Britain, and Stace (2010) believes that walnut can only 'self-sow' (grow naturally from fallen walnuts) in warmer parts of Britain today, again reducing the possibility that walnut occurred 'naturally' in Bedfordshire. This result does tantalisingly imply that either walnut trees were still actively grown and managed in Britain during the Anglo-Saxon period or that the walnut wood was (?or remained) valued for its decorative quality and was imported into Stratton.

Late Anglo-Saxon / Saxo-Norman (Period 5)

The range of species represented by charcoal from late Anglo-Saxon / Saxo-Norman deposits at Stratton is slightly reduced from that found in the middle Anglo-Saxon period, and now includes only ash, blackthorn, elm, gorse/broom, guelder rose / wayfarer's tree, hazel, field maple, oak, willow/poplar and hawthorn group (Digital Appendix A11). However, slightly fewer samples were analysed in Period 5 than Period 4 and the range of contexts sampled was also more limited (certainly there were no charcoal samples from hearths dating to this period). As a result, there are clear difficulties in the reliability of directly comparing the overall assemblages for each period. Nonetheless, oak (*Quercus* spp.) charcoal remains the dominant taxa recovered in sampling (33 of 41 Period 4 samples; 32 of 36 Period 5 samples), and there does appear to be a clear pattern of charcoal debris infilling structural cuts or actively being dumped into deeper features on site during this and earlier periods.

One waterlogged feature from Phase 5 at Stratton (pit G2173) was sampled for plant remains (including wood) and insects. No indicators for surrounding woodland were recovered from the insect fauna and only a few waterlogged hazel nutshell fragments, most likely representing waste debris from collected or traded foodstuffs, were noted (Digital Appendix A9). Waterlogged roundwood fragments from two hurdles (possibly lining the pit) were identified as either indeterminate blackthorn or cherry (*Purnus spinosa* L. / *Prunus* spp. – hurdles C and D) and hawthorn group (POMOIDEAE – hurdle C) (Digital Appendix A10). Where it was possible to count growth rings, they typically ranged from 9 to 15 years in age, suggesting that these rods were from coppiced or managed woodland.

Like earlier periods at Stratton, the late Anglo-Saxon / Saxo-Norman CPR assemblage is highly biased toward the recovery of cereal-processing debris (Digital Appendix A8). However, small quantities of charred unidentified buds or twigs were noted in a few samples from this period. A few charred elder seeds were recovered from wells G5003 and G5119, and a possible yew (*Taxus baccata* L.) seed was tentatively identified from well G5119.

Medieval (Period 6)

A medieval moat (G399/G412) was sampled for both waterlogged insect and plant remains, but few indicators for woodland, trees or shrubs were present (Digital Appendix A9). Only elder (*Sambucus nigra* L.) seeds were recovered and, although this potentially represents scrub or woodland edge, it is more likely that elder occurred along the banks of the moat.

Many willow (*Salix* spp.) buds, a few indeterminate willow/poplar (*Salix* spp. / *Populus* spp.) twigs and some unidentified deciduous leaves were recorded from pit G5966 (Digital Appendix A9). Like the finds of elder in the moat, the most likely explanation for the willow buds in pit G5966 is that a willow tree grew near this pit, which clearly contained a pool of stagnant water.

Fewer charcoal samples were analysed from medieval deposits at Stratton but a slightly wider range of taxa was noted than from the preceding late Anglo-Saxon / Saxo-Norman period, with holly (*Ilex aquifolium* L.) and walnut (*Juglans regia* L.) charcoal identified once again (Digital Appendix A11). Notably, it is in the medieval period at Stratton that we have the first evidence for the use of wood fuel for metalwork (pit G1822), although it seems possible that this metalworking debris may have been mixed in with domestic rubbish (e.g. hazel nutshells and sloe (*Prunus spinosa* L.) stones were also recovered). Oak and hazel charcoal continued to be the most frequently recovered taxa in the medieval charcoal assemblages at Stratton.

As in all previous periods at Stratton, medieval CPR is highly biased toward the charred remains of cereal crops. A few hazel nutshells were recorded in pit G187 and one unidentified stem/twig from pit G3043 was noted, none of which is particularly informative in terms of reconstructing past woodland resources.

Late medieval / early post-medieval (Period 7)

Three fragments of willow/poplar (SALICACEAE) roundwood were identified from a hurdle revetment near trackway G2347, but these were too poorly preserved to observe the number of growth rings. A single piece of worked ash (*Fraxinus excelsior* L.) wood was recovered from late medieval / early post-medieval deposits in moat G402, the medieval lower fills of which had produced elder (*Sambucus nigra* L.) seeds (G399/G412). Two samples from pit G5982 were largely unproductive, but did produce a small assemblage of waterlogged plant remains (Digital Appendix A8). A few elder seeds were noted, and as suggested for other deposits at Stratton, these are likely to have come from a shrub or tree growing in the immediate vicinity of the pit.

Charcoal from late medieval / early post-medieval deposits is slightly more limited than in earlier periods, both in terms of the number of samples collected and the range of taxa represented (Digital Appendix A11). Certainly oak dominates most assemblages but elm (*Ulmus* spp.) wood was dominant in a brick-built grain-drying oven G2202. This is an unusual find because the charcoal was primarily from 'substantial' elm root(s); other than fuel, there are few uses for elm root and it would be relatively slow-burning, which is appropriate for corn-drying (Digital Appendix A11). Several hand-picked charcoal samples from this period produced extremely well-preserved segments of roundwood which establish that hornbeam (*Carpinus betulus* L.), elm and willow/poplar (these taxa are often indeterminate) were clearly from coppiced and/ or pollarded trees, suggesting that wood and/or charcoal was supplied to Stratton from managed woodland.

A few charred fragments of hazelnut and walnut shells were recovered from gully G2191 (Digital Appendix A8), but such foodstuffs are easily transportable and discarded into domestic hearths. As a result, these finds do not necessarily reflect trees immediately growing on site, even in this late period when finds of walnut are more common in England (e.g. Tomlinson and Hall 1996). Other than these finds, the late medieval / early post-medieval CPR assemblage does not provide much evidence for woodland plants; like previous periods at Stratton, the Period 7 CPR assemblage is primarily comprised of cereal grain and cereal-processing debris.

Post-medieval (Period 8)

An elongated pit G5901 produced a substantial waterlogged plant and insect assemblage. There is possible evidence for herbaceous woodland taxa with the recovery of cow parsley (*Antrhiscus sylvestris* L.) and blackberry (*Rubus fruticosus* agg.); however, these frequently grow in waste places along lanes, hedgerows and around ponds. The recovery of elm bark beetle (*Scolytus scolytus*) and oak leaf weevil (*Rhynchaenus quercus*) both suggest that larger, dominant canopy trees were also present in the wider landscape. Given the flight potential of these beetles, it is possible that the trees they occupied could have been some distance away, although both oak and elm were noted in the medieval charcoal assemblage (see below). While most of the data are not related to woodland, several waterlogged buds/bud scales were noted (Digital Appendix A9), indicating that trees/shrubs were likely to have been growing in the vicinity. Unfortunately, due to relatively poor preservation, it was not possible to identify these buds/bud scales further. No further environmental data for the post-medieval phase at Stratton is available.

Summary

Sampling for proxy environmental data at Stratton has allowed some insight into the character of woodland in the area and the range of wood resources in use within the settlement. It is clear that most evidence is largely related to the use of wood as fuel, but there also is strong evidence for regular use of brushwood and coppiced wood for timber structures such as hurdles on site (especially in lining pits/ wells or for revetments) and some evidence for the burning of structural timbers *in situ* (e.g. one middle Anglo-Saxon well G5117 charred hurdle sail and the late Anglo-Saxon / Saxo-Norman Phase 5b postholes G240). Many classes of environmental data (pollen, plant macrofossils, wood and insects) all suggest that Stratton was located in a cleared landscape (see discussion on wider landscape below) and substantial areas of scrub or woodland were not present locally. Nonetheless, it is clear from the many examples of worked wood and charcoal studied that woods such as oak and hazel were regularly in use, and their use was supplemented by the occasional use of other native woods. Visualising the woodland resources available to the inhabitants of Stratton from the Anglo-Saxon to the post-medieval period is problematic, but today there are known areas of historic woodland to the north and west of Biggleswade on the Greensand Ridge (e.g. Home Wood, Sheerhatch Wood, Keeper's Warren, Warden Warren, Chicksands Wood and Exeter Wood all around Sandy, Bedfordshire or the Lodge Nature Reserve near Potton, Bedfordshire); of course, the Ivel valley is also likely to have supported communities of brush/ scrub in the past as well.

The recovery of many fragments of walnut (*Juglans regia* L.) burr wood charcoal from a later middle Anglo-Saxon (Phase 4b) hearth deposit is notable – certainly the use of a non-native wood taxon is of interest and it is clear that walnut as a foodstuff was known in the period, although more typical of urban sites, usually in high-status situations (e.g. Hagen 2006: 61). Therefore,

the possibility that walnut *might* have been cultivated in or near Stratton during the Anglo-Saxon period is unexpected but, unfortunately, on present evidence remains unproven. More results of this nature are necessary before anyone could confidently claim that walnut was cultivated in England during the middle Anglo-Saxon period, rather than merely being imported as a decorative wood.

The surrounding environment

Sampling for proxy environmental evidence (waterlogged wood, pollen, plant macrofossils and insect remains and/or charred wood and plant remains) was carried out at Stratton in order to characterise the general environment in and around the site, both in terms of the use of plants and their disposal (both actively and/or through the natural infilling of archaeological features on site), and also in terms of any evidence for the nature of the wider environment surrounding the settlement.

Early Anglo-Saxon (Period 3)

Only three early Anglo-Saxon contexts – two SFBs (G3609 and G3611) and one well (G5253) – were sampled for environmental remains from Stratton. Unfortunately, only one class of environmental remains (CPR) was recovered from these early Anglo-Saxon deposits, and the assemblage primarily relates to cereal processing. Forty-seven buds were recovered from well G5253 that may have related to its lining, if brush was used as in other wells (Digital Appendix A9), but these buds could not be identified even into broad classes (herbaceous taxa, shrubs or trees, etc.).

Most of the weeds/wild plants recovered are typical crop weeds (especially cereal crops) and are frequently recovered with charred cereal grain and chaff (see table A8.1). However, taxa such as hairy tare (*Vicia hirsuta* (L.) Gray) and henbane (*Hyoscyamus niger* L.), both from SFB G3611, are less likely to be weeds of crop. Both hairy tare and henbane are typical of rough ground and grassy places, but henbane is often associated with a high nitrogen input (i.e. land manured by cattle). The use of cattle dung in daub or earthen floors seems a likely source for such material that entered the deposits. No charcoal was analysed from this SFB, so it is unclear whether there is any evidence for burning *in situ*, although this has been noted in later periods on site (a waterlogged middle Anglo-Saxon hazel sail from a hurdle lining well G5117 (Digital Appendix A10) and charcoal from late Anglo-Saxon / Saxo-Norman postholes G240 (Digital Appendix A11). Disposal of ordinary day-to-day floor sweepings into an open hearth is another plausible explanation for these charred remains.

Middle Anglo-Saxon (Period 4)

Phase 4b wells G5115/G5117 and G5265/G5267 were sampled for waterlogged environmental remains. The WPR assemblage from both wells was dominated by nettles – primarily common nettle (*Urtica dioica* L.) but small nettle (*Urtica urens* L.) was also present – which account for 87% of all identifications in well G5115 and 69% of all identifications in well G5267. Several of the beetle taxa recovered are specifically associated with nettles, such as *Brachypterus urticae*, *Cidnorhinus quadrimaculatus*, *Apion urticarium* and *Ceutorhynchus pollinarius*. Other plants typical of waste or rough ground recovered in these samples include black horehound (*Ballota nigra* L.), possible black nightshade (*Solanum* cf. *nigrum* L.) and henbane (*Hyoscyamus nigra* L.). Indeed, if the scores for these plant taxa are included with those from nettles, 90% of all identifications from G5115 and 76% of all identifications from G5267 are from plants typical of waste or rough ground. The pollen assemblage (Digital Appendix A12) also produced evidence for nettles around these wells, with well G5115/G5117 (N = 4%) producing marginally more nettle (URTICACEAE) pollen than well G5265/G5267 (N = <1%). These results could imply a nutrient-enriched environment (most likely from large-herbivore manure) near to these wells, but it is feasible that all of these taxa could thrive around the head of a disused well. Certainly nettle is a strong coloniser, a prolific seed producer, and typically occurs around recently abandoned human habitation and/or disturbed ground (e.g. Blamey *et al.* 2003: 36; Taylor 2009).

Pollen analysis from wells G5115/G5117 and G5265/G5267 (Digital Appendix A12) suggests that grassland was available in the immediate area, with pollen from grassland taxa such as adder's tongue (*Ophioglossum* spp.), common knapweed (*Centaurea nigra* L.), dandelions (LACTUCEAE,) clovers (*Trifolium* spp.), bird's-foot-trefoils (*Lotus* spp.) and ribwort plantain (*Plantago lanceolata* L.) noted in pollen samples. There is also some evidence to suggest that areas of more heavily grazed, short-turf, grassland communities were present (e.g. pollen grains of rock-roses (*Helianthemum* spp.) and salad burnet (*Sanguisorba minor* L.) are typical of such habitats). The vast majority of charred weed/wild plant taxa recovered often occur as weeds of cultivated crops but there are a few indicators for grassland habitats. Self-heal (*Prunella vulgaris* L.) and plantains (*Plantago major* L. / *Plantago* cf. *lanceolata* L. / *Plantago* spp.) do frequently occur in grassland, but these plants also occur in field margins or along paths and roadsides (e.g. Stace 2010). Ashes (most likely from domestic hearths) were regularly deposited into wells G5115/5117 and G5265/G5267 (Digital Appendix A12). Although CPR was not studied from these deposits, assemblages from deep features such as wells and pits dominate the CPR data

from Stratton. It seems likely, therefore, that domestic rubbish at Stratton was routinely discarded into deep features such as wells or pits.

The waterlogged deposits from wells G5115 and G5267 produced a beetle fauna associated with foul organic matter, such as dung heaps (e.g. *Megasternum obscurum* and *Anotylus sculpturatus* group: Digital Appendix A9). Analysis of sediments from these wells has established that dung was used in the fabric of the well linings (9). The incorporation of animal dung (most likely cattle dung) into the well linings may explain the presence of grassland plant taxa and/or dung/foul insect indicators in these deposits. Nevertheless, one cannot rule out the possibility that animal dung or highly decayed organic matter accreted around the well heads during their use was also disposed of down these wells, after they had fallen out of use.

As discussed above, indicators for woodland are limited from all classes of proxy environmental evidence at Stratton. Palynological results (Digital Appendix A12) do suggest that oak (*Quercus* spp.) and hazel (*Corylus avellana* L.) were dominant in local woodland, but arboreal pollen never accounts for more than 4% of all land pollen, meaning that woodland or scrub was likely to have been only a minor component of the landscape around Stratton. The CPR data primarily relates to cereal cultivation, and certainly pollen related to cereals is frequently noted in samples from wells G5115/G5117 and G5265/G5267. It is likely that the charred cereal crops recovered in the CPR assemblages were cultivated locally, while palynological results establish the consistent presence of 'arable/disturbed-ground herbs', suggesting that areas of cultivation (fields or garden plots) were locally available.

Late Anglo-Saxon/ Saxo-Norman (Period 5)

Sampling of waterlogged plant and insect remains associated with pit G2173 suggest that this feature may have been a waterhole (Digital Appendix A9). The recovery of fool's watercress (*Apium nodiflorum* (L.) Lag.) and sedges (*Carex* spp.), both of which are slow to colonise waterside or shallow-water environments, suggests that this pit was at least continuously damp, if not regularly supporting a pool of water. The presence of wetland plants such as celery-leaved buttercup (*Ranunculus sceleratus* L.) and redshank (*Polygonum persicaria* L. – now *Persicaria maculosa* Gray: Stace 2010), both of which can quickly colonise seasonally exposed, rather nutrient-rich mud, suggests that the pit may have held only a shallow pool of water, or that water levels varied seasonally. The recovery of the water snail *Lymnaea truncatula* and water beetles (e.g. *Agabus bipustulatus*) suggests that water conditions in the pit were likely to have been relatively stagnant. Three plant taxa – common nettle (*Urtica dioica* L.), small nettle (*Urtica urens* L.) and elder (*Sambucus nigra* L.) – account for 65% of all identifications from pit G2173. Both common nettle and elder are typical of nitrogen-enriched soils, especially soils enriched by manure (e.g. Atkinson and Atkinson 2002: 897; Stace 2010: 285, 784; Taylor 2009: 1439), suggesting that livestock were in the vicinity. The recovery of a few dung beetles (*Aphodius* spp.) also suggests the presence of large herbivores grazing nearby, but the very small assemblage of insect fauna from pit G2173 (just 16 individuals, despite the relatively large volume of sediment that was sampled) make it difficult to draw any further conclusions.

The weed/wild-plant component of the CPR assemblage is dominated by weeds of crops, with very few indicators of other environments. Wetland taxa such as redshank/pale persicaria (*Persicaria maculosa* Gray / *lapathifolium* (L.) Gray), possible hard rush (*Juncus* cf. *inflexus* L.), sedges (*Carex* spp.) and spike-rushes (*Eleocharis* spp.) were recovered in the late Anglo-Saxon / Saxo-Norman CPR assemblage, but these taxa may be indicative of irrigation or natural water channels in and around fields rather than particular areas of wetland or water near to the settlement.

Medieval (Period 6)

Medieval moat G399/G412 was sampled for both waterlogged insect and plant remains (Digital Appendix A9). In general, plant remains, Coleoptera and a few identifications of freshwater molluscs from these two samples (and the later Period 7 sample from deposit G407) all suggest slow-flowing and relatively stagnant water conditions. Elder (*Sambucus nigra* L.) and stinging nettle (*Urtica dioica* L.) seeds were frequently recovered, again suggesting nutrient-rich and possibly nitrogen-enriched soils (e.g. Atkinson and Atkinson 2002; Stace 2010; Taylor 2009). *Aphodius* spp. beetles – taxa typically associated with dung of grazing animals – were noted in these samples, suggesting that pasture or livestock were present nearby.

Pit G5966 produced a relatively limited assemblage of WPR and insect fauna, although nearly 50 willow (*Salix* spp.) buds, a few indeterminate willow/poplar twigs (*Salix* spp./ *Populus* spp.) and some unidentified deciduous leaves were recovered. These remains are likely to signify that a willow tree(s) and possibly also poplar trees were in close proximity to, if not overhanging, the pit.

Late medieval / early post-medieval (Period 7)

Sampling of late medieval / early post-medieval deposit G407 within medieval moat G402 produced some buds of willow (*Salix* spp.), a single individual of willow leaf beetle (*Plagiodera versicolora*) and an example of an ash bark beetle (*Hylesinus oleiperda*). Although

these results suggest that willow and possibly ash were growing near to the moat, the WPR assemblage and insect assemblages suggest overall that the landscape remained largely open at this time.

Samples for waterlogged remains from late medieval / early post-medieval ditch G5892 were largely unproductive, with no insect remains recovered and only a limited WPR assemblage (Digital Appendix A9). One sample from the ditch did produce a few shells of the water snail *Lymnaea truncatula*, which suggests areas of slow-flowing, possibly stagnant water, and a single find of *Vertigo angustior*, which is a strong indicator that marshland may have existed in the area (e.g. Evans 1972: 146 and 199).

Post-medieval (Period 8)

Elongated pit G5901 was sampled for both insect and waterlogged plant remains. The recovery of duckweed (*Lemna* spp.) and some water beetle taxa (e.g. *Helophorus* cf. *brevipalpis*, *Ochthebius* cf. *minimus, Agabus bipustulatus* and *Hydrobius fuscipes*) suggests that the pit supported a pool of slow-flowing or stagnant water. Stands of waterside vegetation are likely, since plant taxa such as celery-leaved buttercup (*Ranunculus sceleratus*), possible red goosefoot (*Chenopodium* cf. *rubrum* L.), gypsywort (*Lycopus europaeus* L.), sedges (*Carex* spp.), rushes (*Juncus* spp.) and sweet grasses (*Glyceria* spp.) were recovered and all of these taxa typically occur on the banks of pools, lakes and ditches (e.g. Stace 2010). Common nettle (*Urtica dioica*) was the most abundant taxa recovered, but these plants seed prolifically, producing as many as 30,000 seeds per shoot (e.g. Taylor 2009: 1449). Nevertheless, its presence, along with finds of hemlock (*Conium maculatum* L.) mericarps, does suggest that there was a high nitrogen input near this pit or in the wider vicinity (e.g. Taylor 2009; Vetter 2004: 1375). A range of dung beetles (e.g. *Geotrupes* sp., *Aphodius contaminatus*, *A. granarius*, *A. rufipes* and *A.* cf. *sphacelatus*) were noted, as well as beetles which are frequently found in animal droppings or other forms of foul organic material (e.g. *Cercyon haemorrhoidalis*, *Platystethus arenarius* and *Anotylus sculpturatus* gp). Plants which are particularly associated with pasture or meadows are not abundant in the WPR assemblage from pit G5901, but include taxa such as cowslip (*Primula veris* L.), possible knapweed (*Centaurea* cf. *nigra* L.), possible meadow buttercup (*Ranunculus* cf. *acris* L.), ox-eye daisy (*Leucanthemum vulgare* L.) and yellow rattle (*Rhinanthus* spp.). These plants are favoured by an absence of grazing in systems where grassland is allowed to fully mature before hay-cutting. Whether the plant and insect remains entered pit G5901 through the proximity of cattle manure, which is known to contain large quantities of insects and undigested seed matter (e.g. Charles 1996; Linseele *et al.* 2013; Marinova *et al.* 2013; Robinson 2013) or whether they reflect hay meadow or grassland habitats in the vicinity of the pool is not clear. No pollen samples were analysed from this deposit, meaning that it is not possible to consider proxy vegetation data for the wider environment beyond the pit.

Summary

Multi-proxy environmental sampling of waterlogged features at Stratton has helped to provide limited insights into the nature of the environment in and around the settlement between the Anglo-Saxon and post-medieval periods. Certainly such environmental results are unprecedented for rural Bedfordshire and at present remain a unique dataset for the county.

In general there is strong evidence, especially if the wood remains are included (see discussion of woodland resources above), that the landscape around Stratton was largely devoid of woodland throughout the entirety of the Anglo-Saxon to post-medieval periods. Evidence for pasture, marshes and possible hay meadow is not strong, but is consistently present in several periods (middle Anglo-Saxon wells G5115/G5117 and G5265/G5267, late Anglo-Saxon / Saxo-Norman pit G2713, medieval moat G399/G402 and its late medieval / early post-medieval deposit G407, and post-medieval pit G5901). Where pollen evidence is available (solely for the middle Anglo-Saxon period), it is clear that flora indicative of arable/cultivated land were a substantial component of the past landscape, which suggests that the charred cereal remains and accompanying cereal chaff and weeds of crop are likely to have been cultivated locally.

Cultivation of crops

Charred plant remains (excluding wood charcoal) were relatively abundant and reasonably well-preserved in deposits from most periods at Stratton, post-medieval being the only exception. All of the Anglo-Saxon to late medieval / early post-medieval CPR assemblages analysed were dominated by remains of cereal crops and accompanying cereal chaff and weeds of crop. The results are discussed in detail in Digital Appendix A8; the discussion below focuses on how these results compare to similar finds in the region, especially in terms of the range of crops cultivated in the Anglo-Saxon and medieval periods.

Comparison with other Anglo-Saxon sites in the region

Relatively few archaeological sites have published or available 'grey literature' CPR results from Bedfordshire and its surrounding counties (see Table 9.3): the main ones at the time of writing were Higham Ferrers (Northamptonshire), Orchard Lane (Cambridgeshire), Pennyland (Buckinghamshire),

Raunds (Northamptonshire), Stotfold (Bedfordshire) and Wraysbury (Bedfordshire). Notably, several of these sites may have cross-contamination issues (e.g. broad Anglo-Saxon phasing for Wraysbury: see Jones 1989: 124) or have produced such low levels of CPR that they potentially represent only low-level background scatter (e.g. Orchard Lane: see Murphy 1996). Comparison between sites is problematic, and phasing varies between excavations, making it not always feasible to compare sites by broad chronological period directly. In this case, the only other published Bedfordshire site is loosely phased as 'late Anglo-Saxon', and the preliminary results from Stotfold (Giorgi 2013) may also change once all the site's dating evidence has been analysed. Despite these limitations, it is a useful exercise to visualise similarities and differences between archaeobotanical results for the entire Anglo-Saxon period at different sites in Bedfordshire and its surrounding counties.

Table 9.3 presents a comparative list of Anglo-Saxon economic plants recovered at Stratton and six other sites in the region. Most notably, it is only when mineralised plant remains are recovered from sites that a wide range of fruits are identified. Free-threshing bread wheat (*Triticum aestivum* L.), hulled barley (*Hordeum* spp.) and oat (*Avena* spp.) grain are dominant in all assemblages. Several of the sites have also yielded small quantities of glume wheat – emmer (*Triticum dicoccum* Schübl.) or spelt (*Triticum spelta* L.) – which may have continued in cultivation into the Anglo-Saxon period, although in many cases these finds are interpreted as possible cross-contamination from earlier phases on site (e.g. Stotfold: Giorgi 2013: 30) or contaminants of free-threshing wheat crops (e.g. West Cotton: Campbell 2010: 437). When recovered, glume wheats are a minor component of the cereal crops cultivated at these Anglo-Saxon sites and, in some cases, they are entirely absent (e.g. from Orchard Lane and Pennyland, as well as Stratton). Rivet wheat (*Triticum turgidum* L.) has been noted at Stotfold, Higham Ferrers and West Cotton / Raunds, as well as at Stratton, and appears to be at least a pre-conquest (late Anglo-Saxon) crop (e.g. Moffett 2007: 169; Moffett 1991).

Determining when and where certain cereal crops fell out of use and others were introduced is a well-established research theme in the Anglo-Saxon and medieval periods (e.g. Green 1984; Greig 1996; Moffett 1991). The Anglo-Saxon period was clearly the time when there was a transition from the cultivation of glume wheat (emmer and/or spelt, the preeminent cereals cultivated in the prehistoric and Roman periods) to cultivation of free-threshing wheat (bread wheat and/or rivet wheat), as well as the introduction of new cereal crops such as rye (*Secale cereale* L.).

The adoption of free-threshing wheat such as bread wheat (*Triticum aestivum* L. – and including compact forms of bread wheat *Triticum aestivo-compactum* type) and rivet wheat (*Triticum turgidum* L.) over glume wheat had a major advantage for Anglo-Saxon farmers: cultivation of free-threshing wheat would have resulted in a substantial increase in biomass, as each node on the cereal ear can bear up to a maximum of four to six fully developed grains in ideal conditions (e.g. Jacomet 2006). Even if growing conditions are less than ideal, the production of three fully mature cereal grains per rachis node would result in a 1/3 increase in yield over emmer or spelt, which can only produce a maximum of two grains per rachis node. In addition, the decision to cultivate free-threshing wheat would save labour: glume wheat requires many more processing stages, because the glumes encasing the grains are so robust (e.g. Hillman 1981; Hillman 1984a; Hillman 1984b; Hillman 1985; Jones 1984). Increased yields and less effort in processing crops to extract cereal grain would have been highly attractive to Anglo-Saxon farmers.

Rye has been found at several sites in the region, suggesting that it became more commonly cultivated during the Anglo-Saxon period. At Stratton, rye was not recovered from any deposits predating the late Anglo-Saxon / Saxo-Norman period, where it can sometimes be dominant (e.g. pit G307). This also seems to be the case at both West Cotton / Raunds and Stotfold; however, these sites both have serious gaps in their chronology (no middle Anglo-Saxon at West Cotton / Raunds and no early–middle Anglo-Saxon at Stotfold). Other sites (e.g. Wraysbury and Orchard Lane) are not securely phased. It is therefore problematic to draw any definite conclusions about this pattern in the recovery of rye, but there does appear to be a tendency for rye to be a relatively late Anglo-Saxon introduction in the region. As a crop, the advantage of cultivating rye over other cereals is that it is more tolerant of the northern European climate, is drought tolerant, and can grow on acid soils (e.g. Zohary and Hopf 2000: 69).

Oat (*Avena sativa* L. / *Avena* spp.) is problematic archaeobotanically if the floret base is not preserved (which is frequently the case): without this diagnostic feature, it is not possible to distinguish between cultivated and weedy species (e.g. Jacomet 2006: 51–3). Nevertheless, there does seem to be a general trend of an increase in the recovery of oat (*Avena sativa* L. / *Avena* spp.) identifications from late Anglo-Saxon Stratton and other sites (e.g. Higham Ferrers, West Cotton / Raunds and Stotfold).

Pulses (including vetches not intended for human consumption) are present at these sites, but are frequently not a particularly dominant component of the CPR assemblage. In part, this may reflect a bias

Table 9.3: Comparison of Anglo-Saxon economic plants from Stratton with other sites in the region

	Common Name	Latin Binomial	Stratton (Bedfordshire)	Stotfold (Bedfordshire) Giorgi 2013	Wraysbury (Berkshire) Jones 1989	Pennyland (Buckinghamshire) M. Jones 1993	Orchard Lane (Cambridgeshire) Murphy 1996	Higham Ferrers (Northamptonshire) Moffett 2007	West Cotton / Raunds (Northamptonshire) Campbell 2010
CEREALS	bread wheat	Triticum aestivum L.	x	x	x	x	x	x	x
	rivet wheat	Triticum turgidum L.	x	x				x	x
	barley	Hordeum spp.	x	x	x	x	x	x	x
	oat	Avena spp.	x	x	x		x	x	x
	emmer	Triticum dicoccum Schübl.			x				
	emmer/spelt indet.	Triticum dicoccum Schübl./ spelta L.		x				x	x
	spelt	Triticum spelta L.			x			x	x
	rye	Secale cereale L.			x		x	x	x
OTHER CROPS	beet	Beta vulgaris L.					x		
	garden pea	Pisum sativum L.	x		x		?	x	?
	field or celtic bean	Vicia faba L. var. minor	x	x	x		x	x	x
	common vetch	Vicia sativa L.	x	x		x		x	x
	vetch/vetchling	Vicia spp./ Lathyrus spp.	x	x	x	x			x
	flax/linseed	Linum usitatissimum L.	x		?	x		x	
FRUIT	apple	Malus sp.					x		
	blackberry/ bramble	Rubus section Glandulosus Wimm. & Grab.					M		
	elder	Sambucus nigra L.	x				M	x/M	?
	fig	Ficus carica L.						M	
	hazelnut	Corylus avellana L.	x	x			M	x	x
	pear	Pyrus sp.							x
	plum/bullace	Prunus domestica ssp. insititia (L.) Bonnier & Layens					M		
	sloe	Prunus spinosa L.					M		x

Key: x = present as CPR; M = present as mineralised plant remain

in the probability that pulses would become charred during ordinary crop processing. Certainly many pulses are eaten fresh, and slow air-drying or preservation in brine may be preferable to kiln-drying edible pulses for storage. Pulses grown for animal fodder may never have been regularly subjected to drying as part of crop processing. Many sites in the region have consistently produced remains of small vetches – either common vetch (*Vicia sativa* L.) or indeterminate identifications of vetch/vetchling (*Vicia* spp./ *Lathyrus* spp.). This, coupled with the recovery of oat (*Avena* spp.), does lead to speculation that in addition to the cultivation of crops for human consumption, active cultivation of fodder crops for animal feed was in place, possibly as part of a field-rotation system (e.g. Campbell 2010: 497–8).

The cultivation of vetches intentionally for production of fodder is not recorded in England until early in the 13th century (e.g. Campbell 1988; Currie 1988). However, many Anglo-Saxon sites are now regularly producing increased finds of common vetch (*Vicia sativa* L.) or indeterminate vetch/vetchling (*Vicia* spp. / *Lathyrus* spp.) and it seems likely that, as Currie (1988) suggests, medieval cultivation of vetches had its origins in the Anglo-Saxon period. This theory can only be fully explored through intensively gathering further archaeobotanical data from Anglo-Saxon to early medieval sites in England. The identification of fodder crops, be they pulses or cereals, can be problematic archaeobotanically (e.g. Jones 1998), but at rural sites where there are other forms of proxy environmental evidence for grazing/pasture (e.g. insect remains and/ or pollen) this should be an area for investigation.

In addition to vetch, most of these sites have evidence for cultivation of field bean or broad bean (*Vicia faba* L. var. *minor*) and garden pea (*Pisum sativum* L.), suggesting that the cultivation of edible pulses was also a feature of arable farming in the Anglo-Saxon period. Notably field/broad beans are frequently recovered at sites in the region, but garden pea was only securely identified at Wraysbury and Higham Ferrers. Again, it remains an open question whether these crops were grown as part of a field-rotation system, with Anglo-Saxon farmers aware of their ability to improve soil fertility, or whether they were merely grown to satisfy demand. One must also remember that pulses were not merely eaten as a side vegetable, as we might today, but were mixed into staple foodstuffs such as breads (e.g. horse-bread: see Rubel 2006) or even used in brewing (e.g. Markham's *The English Housewife* (1635) cited by Campbell 2010: 495). Historic records from the Anglo-Saxon period, as well as place-names, suggest that large-scale cultivation of field/broad beans and garden peas was taking place (e.g. Hagen 2006: 46–8).

As with findings from the Roman period (e.g. van der Veen *et al.* 2007; 2008), archaeobotanical evidence for fruit remains is more likely to come from other forms of preservation than carbonisation. Although waterlogged remains were sampled at Stratton, the nature of the deposits sampled (e.g. possible watering holes near pasture) and/or the rural location and relatively low status of the site have resulted in an assemblage with very few fruits noted. This seems to be the case for other sites in the region, especially for the charred components of archaeobotanical assemblages. The presence of conditions suitable for mineralisation at Higham Ferrers (Moffett 2007) and Orchard Lane (Murphy 1996) has generated the most data for fruits, greatly increasing the range recorded archaeobotanically in this region during the Anglo-Saxon period (see also Table 9.3 above).

Although some archaeobotanical data for Bedfordshire and its surrounding counties exists, the gaps in chronology and problems of relatively 'loose' phasing/ cross-contamination mean that, although we can observe some trends in the data, it is unsafe to assume these are securely understood or fully supported by a large archaeobotanical dataset. Indeed, in many cases data from these sites are biased toward certain types of features: ditches, pits, SFBs and wells. Hearths and ovens are likely to be productive contexts archaeobotanically as well, but at present only a few such contexts have generated fully analysed archaeobotanical assemblages. The need for further and more diverse archaeobotanical data in order fully to characterise the arable economy and available crops for Anglo-Saxon Bedfordshire, let alone the surrounding counties, remains necessary. A handful of samples from one or two sites in a county, from only a few features dating to a particular phase in the Anglo-Saxon period, is clearly insufficient (e.g. only three early Anglo-Saxon features at Stratton generated fully analysed archaeobotanical data, while just seven early Anglo-Saxon samples from only two structures were taken to full analysis at West Cotton / Raunds – see Campbell 2010: 431). In essence we have only the beginnings of a baseline archaeobotanical dataset, and existing data have not met the suggested benchmark of 30 fully analysed deposits per chronological phase at a single site, as suggested by van der Veen and colleagues (2007: 203) for Roman Britain.

Continuity of CPR results between the Anglo-Saxon and medieval periods

The focus of sampling at Stratton was on the recovery of plant remains from the main phases of Anglo-Saxon occupation, with 57 CPR samples taken to full analysis; only 13 samples were fully analysed from features encompassing the medieval and early post-medieval periods. While this is obviously a much more limited

dataset than that produced for the preceding Anglo-Saxon phases, nonetheless it does provide useful data on the crops cultivated in these later periods.

Perhaps the most notable result is that the range of crops cultivated in medieval to early post-medieval times at Stratton (Periods 6 and 7) is nearly identical to those cultivated in the Anglo-Saxon era (see Table A8.7). The one obvious exception to this is the recovery of walnut nutshells in late medieval / early post-medieval gully G2191. However, the recovery of walnut charcoal from middle Anglo-Saxon hearth G3632 (Digital Appendix A11) means that the availability of walnuts to Stratton's Anglo-Saxon inhabitants cannot be ruled out.

The relative stability of crops is intriguing, but not unprecedented. Again, problems relating to gaps in the data or limited number of features sampled mean that any observable trends can only be suggested for further testing against more comprehensive datasets. For Stratton, the nine medieval and four late medieval / early post-medieval samples are clearly insufficient to securely claim continuity of agricultural practice. Yarnton in Oxfordshire, for example (Stevens 2004: table 19.4), suffers a similar problem, with many Anglo-Saxon samples studied from early to late Anglo-Saxon phases, but only three medieval CPR samples, all from the same feature.

There also appears to be a good deal of continuity in the range of crops cultivated at West Cotton / Raunds, Northamptonshire – and glume wheat (emmer/spelt) was recovered from both Anglo-Saxon and medieval deposits. Campbell (2010: 490–2) argues that glume wheat is likely either to be a contaminant of seed corn (possibly as part of a maslin mixture with rye) or potentially demonstrate genetic diversity (?mutations) within the wheat cultivated. Certainly in most cases the quantity of 'glume wheat' identifications was very small (usually fewer than ten) in medieval assemblages strongly dominated by other cereal crops. Although not discussed by Campell, one cannot rule out the possibility that the glume wheat recovered represents possible cross-contamination with earlier phases on site. Certainly, Giorgi (2013) argues that the glume wheat identified in five late Anglo-Saxon samples from Stotfold, Bedfordshire is most likely residual from prehistoric phases of the site.

One result which is of interest is the increased recovery of oat and rye from late Anglo-Saxon / Saxo-Norman and medieval deposits at Stratton (see Tables A8.4 and A8.5), as was also the case at West Cotton / Raunds (Campbell 2010: 493) and Yarnton (Stevens 2004: 363). For each of these sites, however, there are too few samples available to securely determine what this may indicate. Certainly Campbell's (2010: 490–3) exploration of the possible cultivation of maslins (bread wheat or rivet wheat with rye or possibly barley with oat) has identified an area for further research, as such risk-buffering cultivation strategies are documented for the medieval period.

Perhaps the most unexpected result from this study is the consistent dominance within the weeds/wild plants recovered of an extremely limited number of weed/wild taxa (see Table A8.8): goosefoot (*Chenopodium* cf. *album* L. / *Chenopodium* spp.), goosefoot family (CHENOPODIACEAE – an identification frequently made due to poor preservation of the external seed coat), corn-cockle (*Agrostemma githago L.)*, dock (*Rumex* spp.), vetch/vetchling (*Vicia* spp./ *Lathyrus* spp.), bird's-foot-trefoil/melilot/medick/clover (*Lotus* spp. / *Melilotus* spp. / *Medicago* spp. / *Trifolium* spp.), stinking chamomile (*Anthemis cotula* L.), sedge (*Carex* spp.– three-sided only) and indeterminate grasses (small and large POACEAE). These weed/wild taxa account for 72% to 100% of all weed/wild identifications in Stratton samples (see Table A8.8). With so few samples in some phases, it is difficult to determine whether this is the actual pattern or merely a reflection of the rather biased and limited range of contexts where archaeobotanical assemblages have been taken to full analysis. Regardless, it seems likely that these are the accompanying weeds of the cereal crops, as counts for cereal grain and chaff combined are frequently the most dominant category of plants in nearly all samples (see Tables A8.5–A8.6). They are also highly consistent with results from elsewhere in the region, e.g. Higham Ferrers, Northamptonshire (Moffett 2007), Orchard Lane, Cambridgeshire (Murphy 1996), Pennyland, Buckinghamshire (Jones 1993), Stotfold, Bedfordshire (Giorgi 2013), West Cotton / Raunds, Northamptonshire (Campbell 2010) and Wraysbury, Berkshire (Jones 1989).

Conclusions

Environmental sampling as a means of establishing the nature of the surrounding environment and providing information on plant use and cultivation conditions has been generally successful at Stratton. With hindsight, employing larger sampling sizes would have ensured better spatial control of results. Nevertheless, multiple collection of small samples from the same feature did enable the solution of combining results from that feature, thereby generating statistically interpretable archaeobotanical assemblages (*sensu* van der Veen and Fieller 1982).

However, despite the fairly substantial numbers of samples that were collected and analysed in detail at Stratton and other regional sites (e.g. 647 samples were collected at Stratton, with 70 analysed for CPR and 12 for WPR; at Higham Ferrers 94 samples were collected and 42 analysed (Moffett 2007: 158); other sites do not report how many samples were collected in total), there

are issues of chronology (gaps and/or imprecision), plus a single feature with a rich CPR assemblage can often generate a disproportionate amount of data. Further limitations to this data exist as a result of the relatively small sampling sizes employed at Stratton, which biases the entire CPR assemblage toward those deposits which had a relatively high density of charred remains. Despite these caveats, archaeobotanical sampling at Stratton has generated an assemblage which suggests that this site's agricultural practices were broadly similar to other rural sites in the region – e.g. Higham Ferrers, Northamptonshire (Moffett 2007) or West Cotton / Raunds, Northamptonshire (Campbell 2010) – or slightly further afield, e.g. Yarnton, Oxfordshire (Stevens 2004). It is also clear that forthcoming Anglo-Saxon and medieval results from Stotfold (Giorgi 2013), just under 12 km south of Biggleswade, are highly similar in nature to the Stratton results.

Integrated approaches to waterlogged deposits in which plant macrofossils, insect remains and pollen have all been analysed have been particularly successful in characterising the nature of the deposit and surrounding environs. In many cases the results of an open or cleared landscape are not unexpected, but the detail of grazing livestock, stagnant pools of water, emergent waterside vegetation, muddy banks or indicators for arable cultivation all help to visualise a mosaic of habitats in and around Stratton, as well as the make-up of individual features such as the lining of wells on site with brush, coppiced hurdles and animal dung.

In essence, the environmental evidence gathered at Stratton, along with the available regional data (see Table 9.3), forms a baseline archaeobotanical dataset against which it is now possible to gauge future results. Funding of environmental analyses at Stratton by English Heritage (now Historic England) has made it possible for all involved in the study of the vegetational history of Stratton to move from guesswork regarding the past environment at Stratton toward factually supported *visualisation* of its past landscape (*sensu* Caseldine *et al.* 2008), and securely establish which crops were available to its inhabitants. In summary, the environmental sampling programme at Stratton shows the value of such multi-proxy approaches to environmental sampling on site and the wisdom of employing such an approach at future excavations in the region and elsewhere in England.

Chapter 10.
Faunal remains

Mark Maltby

Introduction

This chapter provides a general discussion of the zooarchaeological evidence from Anglo-Saxon to post-medieval Stratton (Periods 3–8); the assemblages from Periods 1 and 2 are either too small or of sufficiently dubious provenance to merit detailed study. The analysis is arranged by species, and the following types of evidence are considered where applicable.

1) Relative Abundance: this uses the counts of the number of individual specimens (NISP) originally recorded by Tony Roberts. The report also includes analysis of additional bones (mainly from the later periods) examined and recorded by the author. Counts include bones found in sieved samples.

2) Animal Bone Groups (ABGs): consideration of the frequency of occurrence, locations, and nature of complete and partial skeletons.

3) Element Representation: this is restricted to observations about general trends within the different periods. Details of element representation for each land-use area can be found in Digital Appendix A7.

4) Ageing data: both mandibular tooth ageing data (following Grant (1982) for cattle, sheep/goat and pig) and epiphyseal fusion data are considered for each period.

5) Butchery data: detailed records were not made during the original recording, but the presence of butchery was observed on some bones. This has been noted in Digital Appendix A7, although the low number of butchery observations leads the author to suspect that butchery evidence was not recorded systematically. Detailed observations were made on the much smaller sample of bones recorded by the author, and these have also been noted in Digital Appendix A7. The total number of butchered specimens recorded is included in the element tables for the major species, but no detailed analysis can be carried out. Similarly, no detailed records were made of fragmentation during the original recording, although the parts of the bones represented were recorded.

6) Skeletal anomalies: records of pathology and other abnormalities were briefly described in the original records and many of these have been noted in the land-use area descriptions in Digital Appendix A7. General comments about such anomalies are made in this chapter.

7) Metrical data: measurements recorded on over 1800 bones are stored in the archive. Summary tables of measurements are provided, and general trends between periods are discussed.

8) Other data: although observations of gnawing and burning were occasionally made during the original recording phase, the infrequency of such observations again leads the author to suspect that taphonomic evidence was not recorded systematically, and these cannot be analysed in detail.

Animal exploitation at Stratton

The large faunal assemblage shows that the residents of Stratton relied very heavily on beef for their meat supply throughout all periods of occupation, regularly supplemented by mutton and pork. There were some relatively minor changes in the relative abundance of the three main species: for example, pigs were unusually common in Phase 5a and sheep were more common in Period 3, but the overall impression is one of continuity in dietary intake. Chickens and geese supplemented the meat diet, possibly accompanied by slightly more fish in the post-Norman period. However, the diversity of the meat diet was low throughout the periods. The population rarely ate venison, hare or gamebirds, with nothing in the meat diet to suggest that the residents of any of the excavated houses were of high status. Most of the animals they ate were probably slaughtered on site, although there are indications that more joints of beef, mutton and pork may have been brought to the settlement from the later medieval period onwards.

There were some changes in emphasis in animal husbandry. Ageing and sexing evidence suggest that fewer immature cattle were culled for meat in the post-Norman period, as more oxen were required for working. Meat and possibly dairy production began

to form a more important facet of cattle exploitation in the later medieval period, when there were also slight improvements in the sizes of cattle, which would be consistent with an increasing emphasis on meat production. Sheep were exploited mainly for a combination of meat and wool. Although many were slaughtered immature for meat in all periods, there was evidence for a greater focus on wool production in the later medieval period. Evidence for a post-medieval improvement in carcass size reflects greater emphasis on meat production at that time. Most pigs were slaughtered in their second and third years in all periods. There is evidence that some pigs were being bred at Stratton, particularly in the later medieval and post-medieval periods. It should be emphasised that the slaughter patterns at Stratton may not necessarily represent regional patterns. Many animals raised at these farms would have supplied the manors, and others would have been sent to urban markets. Most of the pigeons from the dovecots, for example, were probably consumed at the manors, while urban markets may have focused more on the acquisition of animals of prime meat age.

Most horses were kept until maturity because of their value as beasts of burden, which in some cases may have resulted in osteological pathology. The prevalence of horse, dog and cat ABGs demonstrates that most of their carcasses were not required for processing, and there is no conclusive evidence that any of their carcasses had been skinned.

Cattle

Cattle abundance

Cattle elements were the most commonly identified in the assemblage, providing 34% of the NISP counts of identified mammals (Table 10.1). Excluding ABGs, cattle provide 41% of the identified mammal assemblage. They are outnumbered by sheep/goat only in Period 3 and Phase 7b, and their percentage never falls below 35% in any of the phases (Table 10.2). Their highest percentage was obtained from Phase 5b (49%). Comparing the broader period assemblages, cattle were the most commonly identified in all periods apart from Period 3. Although greater variations can be found when considering individual landscapes, there was relatively little variation in cattle abundance between periods, with their percentages ranging only between 36% and 45%.

Similarly, there is little variation in NISP counts in assemblages from different types of features. Comparing results from all periods, cattle are slightly better represented in ditches and pits (44% and 46% respectively) than in deposits associated with buildings (40%) and water-filled features (38%). They were the most common species found in all types of features apart from buildings. Again, there are greater variations within some periods, cattle being outnumbered, for example, by sheep/goat in Period 4 pits and Period 8 ditches.

Focusing on the main species exploited for meat, and excluding ABGs, cattle elements provide nearly 45% of the total NISP counts of cattle, sheep/goat and pig. This figure goes above 50% in the assemblages from Phases 5b, 6a and 6 (Table 10.2). As noted above, they are outnumbered by sheep/goat elements in Period 3 (37%), and only narrowly outnumber them in the Period 8 assemblage (42%).

NISP counts have undoubtedly favoured cattle because of the greater fragmentation and segmentation of their carcasses and because their more robust bones have survived better than those of sheep/goat and pig. Unfortunately, the original recording methods did not allow minimum numbers of individuals to be estimated. However, if one takes the elements with the highest NISP counts for the mammalian species (excluding skulls, antlers, horn cores, loose teeth, ribs and vertebrae), one can obtain a pseudo-minimum number of elements count (MNE). This assumes that each fragment came from a different individual. Cattle are less favourably represented using this form of quantification: they provide only 31% of the total mammal MNE counts, compared with 41% for NISP counts (Table 10.2), and are outnumbered by sheep/goat in nine of the 12 phase assemblages. In the Phase 5a assemblage, they are also outnumbered by pig. In none of the assemblages do they provide over 40% of the total mammal MNEs, being best represented in Phases 4a, 5b and 6. Comparing counts by period of the three principal species, cattle outnumber sheep/goat only in Period 6 (43%). Their lowest percentage (32%) is from Period 5, with their overall accounting for 36% of the total MNEs.

The high importance of beef in the diet, and of cattle husbandry in the farming economy, is unsurprising. Cattle were more common than sheep/goat on most Anglo-Saxon-period sites in England (Sykes 2006), including Mercia (Holmes 2016). In Bedfordshire, cattle were the most common species identified in Anglo-Saxon deposits at Clapham and Harrold (Maltby 2004; 2012) and on various Anglo-Saxon and Saxo-Norman sites in and around Bedford (Maltby 2009). Although sheep are generally more prevalent in archaeological assemblages from medieval sites, particularly on rural settlements (Albarella and Davis 1996; Albarella 2005; Sykes 2006), cattle continue to form substantial proportions of many assemblages, to which list Stratton can now be added.

Table 10.1: Mammal NISP counts by Phase (including ABGs)

Species	3	4a	4b	4	5a	5b	5	6a	6	7	7b	8	Total	%	Sieved
Cattle	236	204	409	52	371	204	218	52	662	527	141	296	3372	34.0	29
Sheep/Goat	293	178	336	34	331	131	236	33	368	367	152	285	2744	27.7	127
Pig	102	65	143	14	265	50	89	14	135	260	73	439	1649	16.6	40
Horse	18	73	54	7	52	27	26	9	101	71	31	123	592	6.0	1
Dog	186	49	170	-	25	159	20	2	203	230	24	42	1110	11.2	7
Cat	1	1	30	2	1	-	47	-	3	13	4	6	108	1.1	5
Red Deer	3	1	2	-	3	-	1	-	3	4	1	2	20	0.2	-
Fallow Deer	-	-	-	-	-	-	-	-	-	-	-	1	1	0.0	-
Hare	2	1	-	-	-	-	-	1	1	-	3	-	8	0.1	-
Rabbit	-	17	16	1	1	21	3	2	6	15	86	8	176	1.8	10
Badger	-	3	-	87	-	-	-	-	-	-	-	-	90	0.9	-
Polecat	-	-	-	-	-	-	-	-	-	-	1	-	1	0.0	-
Hedgehog	-	1	-	-	-	-	1	-	-	-	-	-	2	0.0	1
Mole	5	1	3	1	-	-	1	-	1	-	-	-	12	0.1	5
House Mouse	-	-	-	-	-	-	-	-	-	1	-	-	1	0.0	1
Woodmouse	1	-	-	1	-	-	-	-	-	-	1	-	3	0.0	2
Mouse	-	-	-	-	-	1	-	-	-	-	-	-	1	0.0	-
Rat	-	-	-	-	-	1	-	-	-	-	-	-	1	0.0	-
Water Vole	2	1	-	-	-	-	-	-	-	-	-	-	3	0.0	1
Bank Vole	-	2	-	-	-	-	-	-	-	-	-	-	2	0.0	2
Field Vole	-	-	1	-	-	-	-	-	2	-	-	-	3	0.0	2
Shrew	-	-	-	-	1	1	-	-	-	2	-	1	5	0.1	5
Total Identified	**849**	**597**	**1164**	**199**	**1050**	**595**	**642**	**113**	**1485**	**1490**	**517**	**1203**	**9904**		**238**
Large Mammal	342	218	360	61	392	199	260	41	606	491	144	288	3402		53
Medium Mammal	485	340	447	90	307	185	317	75	649	529	170	185	3779		461
Small Mammal	18	19	51	11	5	44	44	26	128	76	56	19	497		358
Unid. Mammal	194	150	249	37	88	68	141	62	363	238	124	102	1816		523
Total Unidentified	1039	727	1107	199	792	496	762	204	1746	1334	494	594	9494		1,395
Total	**1888**	**1324**	**2271**	**398**	**1842**	**1091**	**1404**	**317**	**3231**	**2824**	**1011**	**1797**	**19,398**		**1,633**

Cattle Associated Bone Groups (ABGs)

Only five ABGs of cattle were recorded, providing 215 (6%) of their NISP counts. The largest of these consists of a group of at least seven skulls and horn cores deposited in pit G1232 in L52 (Period 6). This is one of the very few assemblages from the excavations that suggests that the processing of animal carcasses was taking place systematically. Although no butchery marks were recorded, the low numbers of occipitals recorded suggest that the skull cavities had been opened for the removal of the brains. The presence of horn cores in association with the skulls suggests that the horns from these animals were not removed for horn-working.

The other four cattle ABGs consist of 12–54 bones each. The most complete partial skeleton belongs to a juvenile calf in pit G3721 in L51 (Period 6) with most of the trunk and upper limb bones present. The absence of cranial and foot elements could indicate that they were removed with the skin, but no butchery marks were

Table 10.2: Mammal NISP counts and percentages by Phase (excluding ABGs, rabbits and small mammals)

Species	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**
Cattle	236	204	409	40	353	204	218	52	518	141	486	296	3157
Sheep/Goat	293	178	336	34	331	131	194	33	368	152	367	285	2702
Pig	102	65	143	14	265	50	89	14	135	47	153	129	1206
Horse	18	23	54	7	40	27	26	9	101	31	54	61	451
Dog	8	16	16	-	16	7	8	2	30	12	22	15	152
Cat	1	1	4	2	1	-	2	-	3	4	6	6	30
Red Deer	3	1	2	-	3	-	1	-	3	1	4	2	20
Fallow Deer	-	-	-	-	-	-	-	-	-	-	-	1	1
Hare	2	1	-	-	-	-	-	1	1	3	-	-	8
Polecat	-	-	-	-	-	-	-	-	-	1	-	-	1
Total Identified	**663**	**489**	**964**	**97**	**1009**	**419**	**538**	**111**	**1159**	**392**	**1092**	**795**	**7728**
% Mammals	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**
Cattle	36.0	41.7	42.4	41.2	35.0	48.7	40.5	46.8	44.7	36.0	44.5	37.2	40.9
Sheep/Goat	44.7	36.4	34.9	35.1	32.8	31.3	36.1	29.7	31.8	38.8	33.6	35.8	35.0
Pig	15.6	13.3	14.8	14.4	26.3	11.9	16.5	12.6	11.6	12.0	14.0	16.2	15.6
Horse	2.7	4.7	5.6	7.2	4.0	6.4	4.8	8.1	8.7	7.9	4.9	7.7	5.8
Dog	1.2	3.3	1.7	0.0	1.6	1.7	1.5	1.8	2.6	3.1	2.0	1.9	2.0
Cat	0.2	0.2	0.4	2.1	0.1	0.0	0.4	0.0	0.3	1.0	0.5	0.8	0.4
Red Deer	0.5	0.2	0.2	0.0	0.3	0.0	0.2	0.0	0.3	0.3	0.4	0.3	0.3
Fallow Deer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Hare	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.8	0.0	0.0	0.1
Polecat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
% Cow-SG-Pig	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**
Cattle	37.4	45.6	46.1	45.5	37.2	53.0	43.5	52.5	50.7	41.5	48.3	41.7	44.7
Sheep/Goat	46.4	39.8	37.8	38.6	34.9	34.0	38.7	33.3	36.0	44.7	36.5	40.1	38.2
Pig	16.2	14.5	16.1	15.9	27.9	13.0	17.8	14.1	13.2	13.8	15.2	18.2	17.1
Total	**631**	**447**	**888**	**88**	**949**	**385**	**501**	**99**	**1021**	**340**	**1006**	**710**	**7065**
% SG-Pig	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**
Sheep/Goat	74.2	73.3	70.1	70.8	55.5	72.4	68.6	70.2	73.2	76.4	70.6	68.8	69.1
Pig	25.8	26.7	29.9	29.2	44.5	27.6	31.4	29.8	26.8	23.6	29.4	31.2	30.9
Total	**395**	**243**	**479**	**48**	**596**	**181**	**283**	**47**	**503**	**199**	**520**	**414**	**3908**
% Cow-Horse	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**
Cattle	92.9	89.9	88.3	85.1	89.8	88.3	89.3	85.2	83.7	82.0	90.0	82.9	87.5
Horse	7.1	10.1	11.7	14.9	10.2	11.7	10.7	14.8	16.3	18.0	10.0	17.1	12.5
Total	**254**	**227**	**463**	**47**	**393**	**231**	**244**	**61**	**619**	**172**	**540**	**357**	**3608**

observed on any of the bones in this group. It would appear that this carcass was not processed for meat; its flesh may have been considered unfit for consumption. The same explanation could account for the ABGs in ditch G3702 (L64, Period 7). Forty-one bones could have belonged to the same animal; these consist mainly of foot bones, but also some associated upper limb bones and cranial elements. There is evidence for severe active infection of one of the hind feet and this may have discouraged butchery from being carried out. Butchery marks were observed on some of the 18 vertebrae in the ABG from the upper fills (G5119) of Phase 4b well G5313. Details of the butchery marks were not recorded, but if they resulted in both flanks being detached from the vertebrae, this group could represent processing waste, as the vertebrae themselves would have had little meat value. No butchery marks were observed on the group of caudal vertebrae, sacra and pelves found in pits G3686 (L15, Phase 4); this does not necessarily prove that this was not processing waste, but the presence of fairly complete (possibly still articulated) bones from the rump and tail is more likely to indicate that they had not been butchered.

Cattle element representation

Including bones in ABGs, cattle skull or mandible fragments are the best represented elements in all the assemblages apart from Period 8 (Table 10.3). It should be borne in mind, however, that skull counts are inflated by their high fragmentation and by the inclusion of horn cores. Loose teeth provide over 7% of the NISP counts. The relatively high percentage of cranial elements indicates that many of the cattle were slaughtered within the settlement. The decrease in the percentage of cranial fragments in the Period 8 assemblage, and the corresponding increase in upper limb bones, scapulae and pelves, could imply that more dressed carcasses were being introduced in the post-medieval period, although many of the cattle were still probably being slaughtered on site.

Table 10.3: Cattle element counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Skull + Horn	28	29	45	3	45	21	27	2	108	9	38	14	369	10.9
Mandible	32	28	45	7	41	32	24	8	70	18	51	24	380	11.3
Hyoid	2	1	3	-	-	-	-	-	-	-	1	1	8	0.2
Loose Teeth	14	17	31	5	25	9	17	12	69	5	37	15	256	7.6
Scapula	29	17	33	3	25	22	20	1	41	16	40	35	282	8.4
Humerus	14	6	30	3	21	13	10	2	38	14	35	23	209	6.2
Radius	11	9	29	1	25	21	19	1	43	8	30	23	220	6.5
Ulna	7	3	14	1	9	6	3	2	14	2	12	13	86	2.6
Pelvis	17	12	29	6	27	8	7	4	30	12	44	22	218	6.5
Femur	7	11	28	-	25	11	19	2	36	13	47	30	229	6.8
Patella	-	-	-	-	-	-	-	-	-	-	3	-	3	0.1
Tibia	15	14	37	5	23	11	20	4	39	11	31	40	250	7.4
Carpals	1	1	-	1	2	1	1	-	4	-	7	1	19	0.6
Astragalus	7	4	3		3	3	4	2	6	1	8	2	43	1.3
Calcaneus	7	5	6	1	6	9	4	1	9	10	13	3	74	2.2
Other Tarsals	1	-	-	-	2	-	3	-	2	1	3	2	14	0.4
Metacarpal	12	13	14	3	16	15	10	3	39	10	27	16	178	5.3
Metatarsal	9	13	19	1	20	8	14	4	38	7	26	10	169	5.0

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Metapodial	3	1	1	-	1	2	1	-	4	-	1	-	14	0.4
Phalanx 1	6	6	12	2	21	4	5	1	10	2	21	3	93	2.8
Phalanx 2	3	-	4	-	4	2	1	-	-	-	9	1	24	0.7
Phalanx 3	5	-	5	-	3	-	-	1	-	-	9	2	25	0.7
Sesamoids	-	-	-	-	-	-	-	-	-	-	4	-	4	0.1
Atlas (VC1)	4	1	6	-	3	1	2	-	2	1	3	3	26	0.8
Axis (VC2)	1	2	3	-	2	-	2	1	3	1	1	2	18	0.5
Cervical V	-	1	6	-	3	-	-	1	3	-	4	5	23	0.7
Thoracic V	-	1	2	-	10	3	-	-	9	-	2	4	31	0.9
Lumbar V	-	6	-	1	7	-	3	-	5	-	10	1	33	1.0
Sacral V	1	3	2	1	2	2	2	-	2	-	7	-	22	0.7
Caudal V	-	-	-	8	-	-	-	-	3	-	-	-	11	0.3
Ribs	-	-	2	-	-	-	-	-	35	-	3	1	41	1.2
Sternebrae	-	-	-	-	-	-	-	-	-	-	-	-	0	
Total	**236**	**204**	**409**	**52**	**371**	**204**	**218**	**52**	**662**	**141**	**527**	**296**	**3372**	
Body Area	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**	
Cranial	76	75	124	15	111	62	68	22	247	32	127	54	1013	
Scapula/Pelvis	46	29	62	9	52	30	27	5	71	28	84	57	500	
Forelimb	32	18	73	5	55	40	32	5	95	24	77	59	515	
Hindlimb	22	25	65	5	48	22	39	6	75	24	81	70	482	
Feet	54	43	64	8	78	44	43	12	112	31	128	40	657	
Trunk	6	14	21	10	27	6	9	2	62	2	30	16	205	
Body Area %														
Cranial	32.2	36.8	30.3	28.8	29.9	30.4	31.2	42.3	37.3	22.7	24.1	18.2	30.0	
Scapula/Pelvis	19.5	14.2	15.2	17.3	14.0	14.7	12.4	9.6	10.7	19.9	15.9	19.3	14.8	
Forelimb	13.6	8.8	17.8	9.6	14.8	19.6	14.7	9.6	14.4	17.0	14.6	19.9	15.3	
Hindlimb	9.3	12.3	15.9	9.6	12.9	10.8	17.9	11.5	11.3	17.0	15.4	23.6	14.3	
Feet	22.9	21.1	15.6	15.4	21.0	21.6	19.7	23.1	16.9	22.0	24.3	13.5	19.5	
Trunk	2.5	6.9	5.1	19.2	7.3	2.9	4.1	3.8	9.4	1.4	5.7	5.4	6.1	
Butchered	14	1	10	15	12	29	8	28	3	44	8	52	224	
% (ex teeth)	6	1	3	32	3	15	4	70	1	32	2	19	7	

The unusually high percentage of trunk fragments in Phase 4 reflects the inclusion of the vertebrae from the ABG in G3686, which has had a significant effect on the overall percentages in this small sample. The slightly higher percentages of trunk bones in Phases 5a and 6 can also be largely attributed to the inclusion of vertebrae and ribs from the ABGs within those assemblages.

As usual in archaeological assemblages, smaller bones such as the phalanges, carpals and tarsals are less well represented than the major limb bones. This is due partly to the greater fragmentation of the limb bones and some retrieval bias during excavation.

Unidentified large mammal bone categories were not recorded consistently, which means that variations in relative abundance in these categories reflect how they were recorded rather than changes in the relative abundance of different parts of the body. Butchery was noted as being present on 7% of the cattle bones excluding loose teeth, but this is likely to be a gross underestimation.

Cattle ageing and sexing evidence

Only 74 of the 380 cattle mandible fragments provide ageing evidence (Table 10.4), reflecting the fragmented nature of the assemblage. None of the periods produced more than 23 ageable specimens, which restricts the analysis of chronological variations in mortality patterns. Amalgamating the Anglo-Saxon data (Periods 3–5), 28% of the 40 mandibles belonged to cattle aged between 6–36 months. These animals were slaughtered for meat, most being too young to have been used for breeding, dairying or working. However, the remainder are from mature adults, many of whom could have provided calves, milk and traction prior to culling. Immature cattle form a substantial proportion of many Anglo-Saxon mandible assemblages, particularly on lower-status rural sites (Sykes 2006; Holmes 2013). The medieval assemblage of 25 mandibles (Periods 6–7) from Stratton saw a decrease in the percentage of immature cattle, with a predominance of adults, at least 40% of which fall into the elderly category (Table 10.4). This suggests a greater focus on the keeping of cattle for working and breeding, a trend which has also been noted elsewhere (Sykes 2006). The late medieval and post-medieval samples (Periods 7–8) saw the appearance of mandibles of young calves that were probably culled for veal, a by-product of the increasing importance of dairy production observed from sites of this period (Albarella 2005; Sykes 2006).

Although they are more abundant, epiphyseal fusion data are less reliable for ageing analysis because of wide variations in fusion ages. In general, however, they show similar trends to the mandible evidence. In all periods, unfused specimens form less than 10% of the early-fusing epiphyses, showing that the great majority of the cattle represented were over 6–12 months old. Although calf bone epiphyses are likely to have survived less well than those of older cattle, there seems little evidence to suggest that the exploitation of veal at Stratton was extensive, even in the latest periods when dairy production became more important nationally. Fusion evidence from distal tibiae and metapodials, which fuse from around 2–3 years, suggests that over 80% of the Anglo-Saxon and early medieval cattle (Periods 3–6) survived beyond this age. This again broadly supports the mandible ageing evidence. The late medieval and post-medieval samples (Periods 7–8) produced lower percentages (71–73%) of fused distal tibiae and metapodials, suggesting slightly greater emphasis on meat and perhaps dairy production.

Around half of the latest-fusing epiphyses from the early and middle Anglo-Saxon periods (Periods 3-4) are fused, indicating that they belonged to cattle over 3–4 years of age. This increases to over 70% in the Period 5 assemblage. This could suggest that culling of immature cattle decreased in the late Anglo-Saxon / Saxo-Norman period, although cattle of this age were more prevalent in the mandible assemblage (Table 10.4). The decrease in fused specimens in Period 6 to 41% is largely due to the inclusion of several unfused late-fusing specimens from a juvenile calf skeleton in pit G3721. Excluding these, about half the epiphyses are fused. The late medieval (Period 7) late-fusing epiphyses include a higher percentage of fused specimens (64%), supporting the increase in the relative abundance of mature cattle indicated by the mandible evidence. Unfused epiphyses outnumber fused specimens in the post-medieval sample, reflecting an increase in the culling of immature cattle for meat.

Metrical data from cattle metacarpals, particularly complete specimens, can distinguish between males and females quite effectively (Davis *et al.* 2012). Distal breadth measurements indicate that larger specimens of males are well represented throughout, with the possible exception of Period 6. Measurements could only be taken on fused specimens, so all the specimens belong to cattle over two years of age. The presence of substantial numbers of adult males, most of which were probably oxen, supports the view that many of them were used for traction and other work prior to slaughter. The sample is too small, however, to determine whether possible period variations are statistically significant.

Cattle metrical data

A summary of the measurements taken on cattle bones from each period is provided in Digital Appendix A7. Withers height estimates (derived from the greatest

Table 10.4: Cattle mandibular ageing data

			Period					%	Cumulative %	%	Cumulative %
	3	4	5	6	7	8	Total	P3–5	P3–5	P6–7	P6–7
Stage 1	-	-	-	-	-		0	0.0	0.0	0.0	0.0
Stage 2	-	-	-	-	2	2	4	0.0	0.0	8.0	8.0
Stage 3	2	1	4	-	-	1	8	17.5	17.5	0.0	8.0
Stage 4	-	-	2	-	1	2	5	5.0	22.5	4.0	12.0
Stage 4–5	-	1	1	-	-	-	2	5.0	27.5	0.0	12.0
Stage 5	-	-	-	1	1	-	2	0.0	27.5	8.0	20.0
Stage 5–6	-	1	1	-	2	-	4	5.0	32.5	8.0	28.0
Stage 6	-	5	5	6	1	2	19	25.0	57.5	28.0	56.0
Stage 6–7	2	1	5	1	-	-	9	20.0	77.5	4.0	60.0
Stage 7	1	3	5	6	4	2	21	22.5	100.0	40.0	100.0
Total	**5**	**12**	**23**	**14**	**11**	**9**	**74**	**40**		**25**	

Stage 1 = 4th deciduous premolars (dp4) not in wear
Stage 2 = dp4 in wear; 1st molar (M1) not in wear
Stage 3 = M1 in wear; 2nd molar (M2) not in wear
Stage 4 = M2 in wear; 3rd molar (M3) and permanent premolars not in wear
Stage 5 = M3 in wear; 4th permanent premolar (P4) not in wear
Stage 6 = P4 in wear; M3 < Grant wear stage k
Stage 7 = M3 at Grant wear stages k–m

Terminology and age estimates adapted from O'Connor (1991) and Jones and Sadler (2012)
Stage 1 Neonatal > 1 week old
Stage 2 Juvenile = 1 week to 6 months
Stage 3 Immature = 6–18 months
Stage 4 Subadult = 18–24 months
Stage 5 Young adult (adult 1 and 2) = 24–36 months
Stage 6 Mature adult (adult 3) = 36–72 months
Stage 7 = Elderly (>72 months)

lengths of long bones, using standard conversion factors) were obtained on 46 metacarpals, metatarsals and radii. The early and middle Anglo-Saxon cattle (Periods 3–4) had an average height of over 118cm, which is towards the higher end of the means from contemporary assemblages in eastern England (Holmes 2014). The average withers height of cattle at Stratton decreased in Periods 5–6 to around 114cm – slightly smaller than those from late Anglo-Saxon Flixborough (Dobney *et al.* 2007) but slightly larger than the average size of cattle from the late Anglo-Saxon / Saxo-Norman sites in eastern England reviewed by Holmes (2014). Holmes also notes that there was a decrease in the average size of cattle in the late Anglo-Saxon period, a trend which is supported by the Stratton data. The mean withers height increased in the Period 7 assemblage to over 119cm, perhaps indicating some improvement in the overall size of cattle consumed at Stratton in the later medieval period.

These chronological trends in the height of cattle are mirrored by some (but not all) of the breadth and depth measurements. Mean breadth measurements in particular can potentially be influenced by the relative abundance of smaller cows and larger oxen in a given assemblage. Examination of individual measurements was also handicapped by small sample sizes. However, by comparing each measurement against a standard taken from a modern specimen, in this case a Chillingham bull (Holmes 2014), and expressing the difference on a log scale using the formula log10(x/standard), where x is the individual measurement, a much larger sample can be compared. The great majority of the measurements fall below the standard measurements

of the Chillingham bull in each period. However, it was possible to detect variations between periods. The three Anglo-Saxon assemblages (Periods 3–5) have similar ranges. The bimodal distributions may largely reflect (smaller) females and (larger) males. The Anglo-Saxon cattle at Stratton were generally smaller than those from middle Anglo-Saxon Mercian sites analysed by Holmes (2013), although this might be related to settlement status: most of her comparative sample came from the high-status settlement at Flixborough, which, like other high-status sites, produced generally larger cattle. The mean measurements at Stratton decreased slightly during the Anglo-Saxon period and this trend continued into the early medieval period (Period 6), which yielded a greater number of very small specimens. The trend was reversed in Period 7, supporting the withers height evidence that cattle became on average larger in the later medieval period. Similar increases in cattle sizes in this period have been noted in London and on some other sites. The reasons for this could include reactions to both human and cattle population crises, and economic changes in the 14th and 15th centuries (Thomas *et al.* 2013). There is, however, no evidence at Stratton for the substantial improvements in post-medieval cattle sizes witnessed elsewhere in Britain; indeed, the mean sizes slightly decreased.

Sheep/Goat

Sheep/goat abundance

Many elements of sheep and goat are not distinguishable in fragmentary material. Apart from one observation of a horn core belonging to a large male goat from L52 (Period 6), there are no specific identifications of sheep or goats in the original recording sheets. In the contexts examined by the author, sheep (39) heavily outnumbered goat (6) in the post-medieval water-management features in L84. Six sheep but no goat elements were recorded in enclosure system L59 (Period 6). Twelve sheep were positively identified in Period 7 deposits from L65 and L74, including a group of six sheep frontals/horn cores found together in pit G5985 in L74, but no goats were recorded. Unfortunately, no observations were made regarding the relative abundance of sheep and goats in earlier periods. However, comparisons of the greatest length and minimum shaft-breadth measurements of 15 complete metapodials from Periods 3–5 show that they are all sufficiently slender to be considered as sheep, as are nine others from Periods 6–7. No specimens were attributed to goat. It is therefore assumed that the vast majority of the sheep/goat fragments in all periods belonged to sheep.

Sheep/goat elements were the second most commonly recorded, providing 28% of the NISP counts of identified mammals in the overall assemblage (Table 10.1). Excluding ABGs, sheep/goat account for 35% of the elements. As noted above, they were the most commonly identified species only in Phases 3 (45%) and 7b (39%), but they were consistently represented in all the other phases at 30–36% (Table 10.2). With regard to the broader period assemblages, sheep/goat were the most commonly identified in Period 3 (45%) but rank second behind cattle in all the subsequent periods, providing between 32% and 36% of the NISP counts.

With regard to abundance in different types of features, sheep/goat are consistently well represented in all types of feature, with percentages never falling below 33%, but are the best represented species only in assemblages associated with buildings (41%). Sheep/goat are the most abundant species represented in Period 3 water features, Period 4 pits, Period 7 pits and Period 8 ditches. Their slightly higher representation in building deposits may reflect processing practices, with more lamb and mutton being brought into the household with the bones still attached, whereas more of the beef may have been filleted prior to cooking.

Excluding ABGs, sheep/goat provide 38% of the overall NISP counts of cattle, sheep/goat and pig. They provide 46% of these counts in Period 3 and 45% in Phase 7b; their lowest percentage (33%) is in Phase 6a (Table 10.2). Comparing the broader periods, there was a sharp drop in sheep/goat percentages between Periods 3 and 4 (from 46% to 39%), and further small decreases in Periods 5 and 6 (36%), before increasing slightly in Periods 7 and 8 (39–40%).

Sheep/goat percentages are generally slightly higher using pseudo-MNE counts, contributing 37% of the total mammals overall. Comparing the three principal species only, the same trends were observed as in the NISP counts: sheep/goat percentages were at their highest level (51%) in the early Anglo-Saxon period (Period 3), dropping to 39% in Periods 5–6 before rising again in the later medieval (Period 7) assemblage (49%). Their percentage dropped to 35% in Period 8, largely because of the rise in the percentage of pig. Although sheep were probably the most commonly slaughtered, their contribution to the diet was of much less importance than beef.

Sheep Associated Bone Groups (ABGs)

Only two ABGs were recorded, both from Period 5 (L30). The larger group consists of 35 bones from the head and feet of an adult sheep in pit G2166, while seven hind-foot bones of a lamb were recovered from pit G2174. Both groups could have been deposited after skinning and/or initial dismemberment. The low incidence of ABGs indicates how intensively sheep carcasses were processed.

Sheep/goat element representation

As commonly occurs in archaeological assemblages, sheep/goat elements are dominated by the larger and most robust bones, particularly the mandible, tibia and, to a lesser extent, the radius and metatarsals (Table 10.5). Loose teeth also provide a more substantial proportion (14%) of the sheep/goat assemblage than in the case of cattle (8%), which is a good indication that more sheep/goat jaws were destroyed, reflecting their poorer survival. The rarity of ABGs, together with their fragility, accounts for the low percentages of ribs and vertebrae. Small bones such as the carpals, tarsals and phalanges are consistently under-represented.

Differential preservation and recovery therefore account for most of the unevenness in the sheep/goat assemblage. Apart perhaps from the group of six butchered sheep skulls in pit G5985 (L74, Period 7), there is no evidence for the deposition of large accumulations of bones from specialist processing areas. The presence of large numbers of cranial and foot elements in all periods suggests that most of the sheep were slaughtered on site. However, the relative abundance of the two most common elements, the mandible and tibia, does show some variation between periods. Mandible NISPs (53%) outnumbered tibiae (47%) in the Period 3 deposits, but thereafter, the percentages of tibiae gradually increased in every period to 64% in Period 7, before decreasing slightly to 55% in Period 8. Similarly, the percentage of tibiae of the total tibiae and metatarsals increased during each period from 61% in Period 3 to 81% in Period 8. In addition, humeri were outnumbered by metacarpals in the Anglo-Saxon deposits (Periods 3–5), but outnumbered them in all the subsequent periods (Table 10.5). This indicates that a greater proportion of upper limb bones were found in the later periods, which may reflect that it became more common for partially processed carcasses to be imported in the later periods, with the heads and feet removed prior to their introduction. However, many sheep continued to be slaughtered and butchered on site. Butchery marks themselves were not recorded systematically, but marks were noted on 3% of the sheep/goat bones (Table 10.5).

Table 10.5: Sheep/Goat element counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Skull + Horn	31	18	26	2	19	4	18	-	16	11	31	52	228	8.3
Mandible	47	28	48	8	56	23	34	2	40	16	37	34	373	13.6
Hyoid	2	-	2	-	1	1	-	-	1	-	1	-	8	0.3
Loose Teeth	37	25	36	7	49	21	37	5	67	23	57	24	388	14.1
Scapula	24	3	15	2	11	6	12	1	19	7	21	20	141	5.1
Humerus	9	13	19	2	14	5	7	1	21	9	25	20	145	5.3
Radius	21	17	30	2	30	15	23	5	41	21	34	27	266	9.7
Ulna	3	2	4	1	4	3	3	1	4	1	8	3	37	1.3
Pelvis	13	4	18	1	16	4	3	1	11	11	18	16	116	4.2
Femur	8	3	13	1	12	5	5	1	18	8	17	10	101	3.7
Patella	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
Tibia	42	25	64	2	57	22	40	9	62	25	68	42	458	16.7
Carpals	-	-	1	-	-	-	-	1	-	-	-	-	2	0.1
Astragalus	-	1	1	-	1	-	1	-	2	-	-	-	6	0.2
Calcaneus	2	2	4	-	2	-	1	1	3	-	6	3	24	0.9
Other Tarsals	-	-	-	-	-	-	1	-	2	-	-	-	3	0.1
Metacarpal	21	15	20	1	23	11	14	1	19	6	15	14	160	5.8
Metatarsal	27	16	24	2	31	8	12	4	36	9	18	10	197	7.2
Metapodial	2	1	1	2	1	1	1	-	-	-	1	-	10	0.4
Phalanx 1	-	3	1	-	4	-	10	-	1	-	-	-	19	0.7

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Phalanx 2	1	1	2	1	-	-	4	-	1	-	2	-	12	0.4
Phalanx 3	-	-	-	-	-	-	4	-	-	1	1	-	6	0.2
Sesamoids	-	-	1	-	-	-	4	-	-	-	-	-	5	0.2
Atlas (VC1)	1	-	1	-	-	-	1	-	1	2	-	3	9	0.3
Axis (VC2)	-	-	1	-	-	1	-	-	1	1	4	1	9	0.3
Cervical V	2	-	-	-	-	-	1	-	1	1	-	1	6	0.2
Thoracic V	-	-	4	-	-	-	-	-	-	-	-	1	5	0.2
Lumbar V	-	-	-	-	-	-	-	-	-	-	3	3	6	0.2
Sacral V	-	1	-	-	-	-	-	-	1	-	-	1	3	0.1
Ribs	-	-	-	-	-	1	-	-	-	-	-	-	1	0.0
Total	**293**	**178**	**336**	**34**	**331**	**131**	**236**	**33**	**368**	**152**	**367**	**285**	**2744**	
Body Area	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**	
Cranial	117	71	112	17	125	49	89	7	124	50	126	110	997	
Scapula/Pelvis	37	7	33	3	27	10	15	2	30	18	39	36	257	
Forelimb	33	32	53	5	48	23	33	7	66	31	67	50	448	
Hindlimb	50	28	77	3	69	27	45	10	80	33	85	52	559	
Feet	53	39	55	6	62	20	52	7	64	16	43	27	444	
Trunk	3	1	6	0	0	2	2	0	4	4	7	10	39	
Body Area %														
Cranial	39.9	39.9	33.3	50.0	37.8	37.4	37.7	21.2	33.7	32.9	34.3	38.6	36.3	
Scapula/Pelvis	12.6	3.9	9.8	8.8	8.2	7.6	6.4	6.1	8.2	11.8	10.6	12.6	9.4	
Forelimb	11.3	18.0	15.8	14.7	14.5	17.6	14.0	21.2	17.9	20.4	18.3	17.5	16.3	
Hindlimb	17.1	15.7	22.9	8.8	20.8	20.6	19.1	30.3	21.7	21.7	23.2	18.2	20.4	
Feet	18.1	21.9	16.4	17.6	18.7	15.3	22.0	21.2	17.4	10.5	11.7	9.5	16.2	
Trunk	1.0	0.6	1.8	0.0	0.0	1.5	0.8	0.0	1.1	2.6	1.9	3.5	1.4	
Butchered	6	0	7	8	2	5	1	4	0	8	5	14	60	
% (ex teeth)	2	0	2	30	1	5	1	14	0	6	2	5	3	

Sheep/goat ageing and sexing evidence

Over 200 mandibles provided tooth eruption and wear evidence (Table 10.6). It is assumed that the vast majority of these belonged to sheep. No jaws of neonatal sheep (Stage 1) survived, and mandibles of lambs that died prior to six months old (Stage 2) were only found in Anglo-Saxon deposits. It is possible that many mandibles of this age did not survive, but nevertheless their infrequency suggests that intensive dairy production, which necessitated the cull of young lambs, was not a major consideration in sheep husbandry.

Substantial numbers of mandibles were found of sheep that had been culled around 6–12 months of age (Stage 3), providing nearly a quarter of the Period 4 mandibles and also well represented in Periods 3 and 6. They were much rarer in the Period 7 deposits and were not present in the Period 8 sample. Sheep slaughtered in their second year (Stage 4) were common in every period, providing 30% of the mandibles in Period 5 and outnumbering those at Stage 3 in all periods apart from Period 3. Together, Stage 3 and 4 specimens account for 35–41% of the mandibles in Periods 3–6. These belonged to sheep that were selected from the flocks for slaughter at approximately 6–24 months of age. Close

Table 10.6: Sheep/Goat mandibular ageing data by Period

	3	4	5	6	7	8	Total	%	Cumulative %
Stage 1	-	-	-	-	-	-	0	0.0	0.0
Stage 2	1	1	1	-	-	-	3	1.5	1.5
Stage 3	4	11	5	3	1	-	24	11.9	13.4
Stage 3–4	-	1	-	1	-	-	2	1.0	14.4
Stage 4	6	7	17	4	3	3	40	19.9	34.3
Stage 4–5	-	1	1	-	-	-	2	1.0	35.3
Stage 5	9	10	14	3	9	7	52	25.9	61.2
Stage 5–6	-	1	-	-	1	-	2	1.0	62.2
Stage 6	1	4	10	4	6	6	31	15.4	77.6
Stage 6–7	-	4	-	4	2	1	11	5.5	83.1
Stage 7	7	6	8	3	6	4	34	16.9	100.0
Total	**28**	**46**	**56**	**22**	**28**	**21**	**201**		
%	**3**	**4**	**5**	**6**	**7**	**8**			
Stage 1	0	0	0	0	0	0			
Stage 2	4	2	2	0	0	0			
Stage 3	14	24	9	14	4	0			
Stage 3–4	0	2	0	5	0	0			
Stage 4	21	15	30	18	11	14			
Stage 4–5	0	2	2	0	0	0			
Stage 5	32	22	25	14	32	33			
Stage 5–6	0	2	0	0	4	0			
Stage 6	4	9	18	18	21	29			
Stage 6–7	0	9	0	18	7	5			
Stage 7	25	13	14	14	21	19			

Stage 1 = 4th deciduous premolars (dp4) not in wear
Stage 2 = dp4 in wear; 1st molar (M1) not in wear
Stage 3 = M1 in wear; 2nd molar (M2) not in wear
Stage 4 = M2 in wear; 3rd molar (M3) and permanent premolars not in wear
Stage 5 = M3 in wear; M1 at Grant (1982) wear stage g
Stage 6 = M1 at Grant wear stages h–m, M2 at Grant wear stage g
Stage 7 = M1 and M2 at Grant wear stages h–m,

examination of the tooth eruption patterns indicates that most of the Stage 4 specimens probably belonged to animals culled at 18–24 months of age, when they had nearly reached full size. Assuming that the sheep were born in the spring, this would indicate that there was a substantial cull of first- and second-year sheep during the autumn. This cull became less marked in Periods 7–8, when only 14–15% of the mandibles were from Stages 3–4. Nearly all of these were second-year mortalities.

Sheep mandibles with fully erupted tooth rows but without heavy wear on any of the molars (Stage 5) were the most commonly recorded (Table 10.6). Most of these belonged to animals aged between 2 and 4–6 years old (Jones 2006). These animals therefore could have been used for breeding and would have provided annual fleeces of wool prior to slaughter. They provided over 30% of the specimens in Periods 3, 7 and 8. They were also common but less prominent in Periods 4–5 (22–25%), while they were substantially less well represented in Period 6 (14%).

Mandibles with heavy wear on one or more of the molars (Stages 6–7) became increasingly common through time. They provided between 29% and 32% of the Period 3–5 assemblages, rising to 49–50% in Periods 6 and 7 and 53% in Period 8. These jaws are from mature sheep, probably at least 4 years old and substantially older in many cases. The increase in the percentage of older animals reflects the increased national importance of wool production during the medieval period, as has been evidenced in archaeological assemblages elsewhere (Wilson 1994; Sykes 2006).

However, it cannot be assumed that the sheep consumed at Stratton necessarily reflected the regional pattern of slaughter. Wilson (1994) has demonstrated that medieval rural sites in Oxfordshire produced higher percentages of older sheep than those from contemporary towns, indicating that a higher proportion of immature and sub-adult sheep were selected to be brought to the urban markets for slaughter. The same may have been the case in Bedfordshire. The assemblage of Saxo-Norman sheep mandibles from Castle Lane, Bedford (Maltby 2009) is dominated by Stage 4 specimens (51%), substantially higher than in the Period 5 assemblage at Stratton (30%). In addition, only 15% of the mandibles from the Bedford site were from mature individuals, compared with 32% at Stratton.

Sheep/goat epiphyseal fusion data are less reliable ageing indicators because of variations in fusion ages (Popkin *et al.* 2012), and due to problems of differential recovery and preservation of unfused specimens. However, they can be used to supplement mandible data. The low percentages of unfused early-fusing epiphyses confirm that bones of lambs under 6 months old are not present in substantial numbers. Amongst the later-fusing epiphyses, there is a noticeable difference in the percentages of unfused distal tibiae (15%) and distal metapodials (41% combined). This suggests that there was a substantial cull of animals in the period between when these epiphyses fused. As noted above, there is a lot of variation in sheep epiphyseal fusion ages, spanning 7–28 months in the case of the tibia and 7–43 months in the case of metapodials in modern Shetland sheep, with castrates generally having delayed fusion ages (Popkin *et al.* 2012). It is plausible, however, that the higher percentage of unfused distal metapodials in comparison to distal tibiae largely reflects the high levels of slaughter of second- and third-year sheep that is indicated by the mandibles.

Fewer than half of the latest-fusing epiphyses from any period were fused. Poor survival has meant that sample sizes are small compared to those of earlier-fusing epiphyses. Surprisingly, the percentage of fused specimens did not increase in the later periods, as one would have expected given the mandible ageing evidence. It is possible that more castrated wethers were represented in the later periods, and delayed epiphyseal fusion of their epiphyses meant that the overall percentage of fused specimens did not increase. It is also possible that this discrepancy was linked to the possible increase in imported joints of meat, more of which may have been from immature or sub-adult animals.

Sheep metrical data

A summary of the measurements taken on sheep bones from each period is provided in Digital Appendix A7. Withers height estimates were obtained on 33 metacarpals, metatarsals and radii. The sheep ranged from very small (50cm) to reasonably large (63cm) animals. The early and middle Anglo-Saxon specimens (Periods 3–4) were on average slightly larger (60cm) than the Period 5–7 specimens (56cm), before a post-medieval reversal in the trend (59cm), albeit based on very few specimens. The mean heights of the Anglo-Saxon specimens are similar to those from Flixborough, where a decrease in overall size was also witnessed in the latest phase (Dobney *et al.* 2007). The increased importance of wool production could have focused the attention on increasing the number of sheep rather than their carcass size.

Chronological changes in sheep heights can be compared to breadth and depth measurements of their limb bones, although comparisons of individual measurements are again limited by small sample sizes. The largest samples come from distal tibiae: average breadths range between 24.6mm and 26.9mm, with the largest tibiae coming from post-medieval features. The average distal breadth from Periods 3–5 (25.4mm) is typical of Anglo-Saxon sites across England (Holmes 2014). The medieval (Periods 6–7) average of 24.8mm is similar to those found on other sites in the Midlands (Albarella and Davis 1996), where sheep were generally slightly larger than those from contemporary sites in south-west England (Maltby 1979; Albarella and Davis 1996). Breadth measurements from several bones were compared with their counterparts on a modern Soay ewe (Holmes 2014), and the differences expressed on a log10 scale. All the measurements are larger than the Soay, which is a particularly small breed. Average mean differences are very similar in the early and middle Anglo-Saxon deposits (0.069 and 0.070 respectively), decreasing slightly in the subsequent late Anglo-Saxon / Saxo-Norman and early medieval periods (0.067) and slightly further still in the late medieval sample (0.063). The trend is clearly reversed in the Period 8 post-medieval assemblage, which sees the average size increase to 0.087, reflecting greater emphasis on more intensive meat production, which encouraged improvements in carcass sizes (Thomas *et al.* 2013).

Pig

Pig abundance

Pig elements were the third most commonly identified, providing 17% of the NISP counts of identified mammals overall (Table 10.1). Excluding ABGs, pig contributed 16% of the identified mammal elements (Table 10.2). Pig elements were most commonly recorded in Phase 5a (26.3%), largely reflecting their relatively high abundance in L24. Other phase percentages vary very little, ranging between 12% and 17%. Considering the broader period groupings, pigs were the most commonly identified in Period 5 (21%), but fell to under 12% in Period 6. Pig percentages were also fairly consistent in different types of feature, being best represented in water features (19%), largely due to their abundance in well deposits G5119 in L24.

Excluding ABGs, pig elements provided 17% of the overall NISP counts of cattle, sheep/goat and pig, again being much more prominent in Phase 5a (28%) than in any of the other phases, in which they ranged between 13% and 18% (Table 10.2). Comparing the broader periods, pigs were best represented in Period 5 (22%), significantly higher than their levels in the earlier Anglo-Saxon phases (16%) and subsequent medieval phases (13–15%).

Direct comparison of sheep/goat and pig NISP counts removes some of the biasing factors that the inclusion of cattle elements can produce (Maltby 2010, 159). These confirm the unusually high levels of pig elements in Phase 5a (45%) compared to their overall average percentage of 31% (Table 10.2). Comparing the broader periods, pigs provided 38% of the pig and sheep/goat elements in Period 5 compared to figures of 26–29% in the other Anglo-Saxon and medieval periods. They increased slightly (31%) in the post-medieval deposits.

Pig percentages are generally slightly higher using pseudo-MNE counts. They contribute 19% of the total mammals from all phases, providing over 27% of the totals in Periods 5 and 8. Comparing the three principal species only, pig percentages are also highest in Periods 5 and 8 (29% and 31% respectively).

Percentages of pigs in archaeological assemblages in the Midlands decreased during the medieval period in relation to sheep (Albarella 2006), largely, it is believed, as a result of the increasing focus on wool production and the decline in woodlands suitable for pig pannage. At Stratton, there was a decline in pigs from their high levels in the late Anglo-Saxon period, but these high percentages reflect the high frequency of pigs in just one feature (well G5313), rather than a consistent decline. Pig percentages from the later medieval periods were not significantly lower than in the early and middle Anglo-Saxon periods. The percentages of pig in the Anglo-Saxon and medieval periods were broadly similar to those encountered on contemporary sites within this region (Albarella 2006; Holmes 2016), but the percentage of pig was not higher in the early Anglo-Saxon period than in later Anglo-Saxon phases, as has been observed on some sites (Holmes 2016).

Pigs also tend to be more common on high-status sites in these periods (Albarella and Davis 1996). In this regard it is worth noting that the unusually high percentage of pig bones in well G5313 was from a feature that produced a rich finds assemblage, which also supports the evidence for unusual deposition practices associated with the closure of the well. Generally, the percentages of pig were lower than those encountered on high-status sites.

Pig Associated Bone Groups (ABGs)

Six ABGs of pig were recorded, providing a total of 443 bones. These were all from late medieval or post-medieval deposits. L67 (Period 7) produced two groups, the larger consisting of the burial of a piglet in pit G459. Four bones of a neonatal pig were recovered from ditch G316. L68 (Period 7) produced two ABGs of juvenile pigs from structure G1478 and pit G1452. Parts of another juvenile were recovered from pit G3032 in L79 (Phase 7b). Subsequently, a sub-adult sow was buried along with at least six foetal piglets in that same area (L83 Period 8). None of the pig ABGs has evidence of butchery; these may all have been animals that died prematurely or during farrowing, and for whatever reason were not subsequently processed. Their presence suggests that pigs were being kept in some areas of the village in these periods.

Pig element representation

Most archaeological pig assemblages are dominated by skull fragments, mandibles and loose teeth, and Stratton is no exception (Table 10.7). They usually provide over half of the pig elements in assemblages from Periods 3–6, their dominance due to the much better survival of the mandibles compared to most limb bones and to the fact that the heads of pigs were more likely to have been retained for household processing than those of sheep and cattle because of their greater food content. The decrease in the dominance of cranial elements in Periods 7–8 is largely due to the inclusion of bones from the ABGs, which include a much higher proportion of ribs and vertebrae. To a large extent, this also accounts for the relative increase in upper limb bones, scapulae and pelves in those periods. However, cranial fragments are slightly outnumbered by these elements even when bones from ABGs are excluded, and

Table 10.7: Pig element counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Skull	24	12	18	2	38	3	12	1	7	5	24	40	186	11.3
Mandible	14	13	25	2	59	16	14	4	28	6	20	51	252	15.3
Hyoid													0	0.0
Loose Teeth	11	12	31	4	46	10	29	3	36	12	25	18	237	14.4
Scapula	6	4	5	2	19	3	9	-	7	4	17	12	88	5.3
Humerus	5	2	7	2	17	3	5	-	11	5	18	28	103	6.2
Radius	3	-	9	-	11	5	1	-	5	3	15	13	65	3.9
Ulna	6	2	6	1	16	-	3	-	8	2	9	12	65	3.9
Pelvis	4	-	5	-	7	-	3	-	3	-	4	11	37	2.2
Femur	-	2	3	-	6	-	-	-	7	3	8	17	46	2.8
Tibia	2	1	12	-	14	4	2	3	5	5	24	20	92	5.6
Fibula	5	4	6	-	7	-	4	1	3	-	7	6	43	2.6
Carpals	-	-	-	-	-	-	-	-	1	-	1	-	2	0.1
Astragalus	3	1	-	-	1	-	-	-	1	1	2	-	9	0.5
Calcaneus	3	-	-	-	3	1	-	-	1	1	3	3	15	0.9
Other Tarsals	-	-	-	-	-	-	-	-	1	-	-	-	1	0.1
Metacarpal	1	4	2	-	12	1	1	-	1	-	3	3	28	1.7
Metatarsal	6	2	6	-	4	-	-	-	2	6	4	-	30	1.8
Metapodials	3	2	3	1	3	3	4	1	5	2	10	24	61	3.7
Phalanx 1	2	-	3	-	-	-	1	1	-	-	2	3	12	0.7
Phalanx 2	2	1	1	-	-	-	-	-	2	1	-	-	7	0.4
Phalanx 3	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
Sesamoids	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
Atlas (VC1)	-	1	1	-	-	1	1	-	1	-	2	-	7	0.4
Axis (VC2)	-	-	-	-	-	-	-	-	-	-	1	1	2	0.1
Cervical V	2	2	-	-	1	-	-	-	-	3	9	2	19	1.2
Thoracic V	-	-	-	-	-	-	-	-	-	5	7	14	26	1.6
Lumbar V	-	-	-	-	1	-	-	-	-	-	-	7	8	0.5
Sacral V	-	-	-	-	-	-	-	-	-	-	-	4	4	0.2
Caudal V	-	-	-	-	-	-	-	-	-	-	-	2	2	0.1
Vertebrae	-	-	-	-	-	-	-	-	-	-	-	4	4	0.2
Sternebrae	-	-	-	-	-	-	-	-	-	-	4	1	5	0.3
Ribs	-	-	-	-	-	-	-	-	-	9	41	143	193	11.7
Total	**102**	**65**	**143**	**14**	**265**	**50**	**89**	**14**	**135**	**73**	**260**	**439**	**1649**	
Body Area	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**	
Cranial	49	37	74	8	143	29	55	8	71	23	69	109	675	
Scapula/Pelvis	10	4	10	2	26	3	12	0	10	4	21	23	125	
Forelimb	14	4	22	3	44	8	9	0	24	10	42	53	233	

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Hindlimb	7	7	21	0	27	4	6	4	15	8	39	43	181	
Feet	20	10	15	1	23	5	6	2	14	11	25	33	165	
Trunk	2	3	1	0	2	1	1	0	1	17	64	178	270	
Body Area %														
Cranial	48.0	56.9	51.7	57.1	54.0	58.0	61.8	57.1	52.6	31.5	26.5	24.8	40.9	
Scapula/Pelvis	9.8	6.2	7.0	14.3	9.8	6.0	13.5	0.0	7.4	5.5	8.1	5.2	7.6	
Forelimb	13.7	6.2	15.4	21.4	16.6	16.0	10.1	0.0	17.8	13.7	16.2	12.1	14.1	
Hindlimb	6.9	10.8	14.7	0.0	10.2	8.0	6.7	28.6	11.1	11.0	15.0	9.8	11.0	
Feet	19.6	15.4	10.5	7.1	8.7	10.0	6.7	14.3	10.4	15.1	9.6	7.5	10.0	
Trunk	2.0	4.6	0.7	0.0	0.8	2.0	1.1	0.0	0.7	23.3	24.6	40.5	16.4	
Butchered	1	0	0	1	0	5	0	1	0	4	1	2	15	
% (ex teeth)	1	0	0	10	0	13	0	9	0	7	0	0	1	

the highest MNE is derived from tibiae, in contrast to mandibles in all previous periods. This may indicate an increase in the importation of joints of pork and bacon in the later medieval period. The small bones of the feet are generally poorly represented as a consequence of retrieval bias. Butchery marks were explicitly noted on only 15 pig bones, but most of these were not recorded in detail.

Pig ageing and sexing evidence

A total of 119 pig mandibles provide ageing data (Table 10.8). Immature pigs predominate, as expected, as pigs do not provide secondary products such as wool and milk. None of the pig mandibles belonged to a neonatal mortality, although such animals are represented by other bones in the late medieval and post-medieval ABGs. The presence of very young piglets (Stage 2) in most periods probably also indicates that some pigs were being kept at Stratton. Most of the pigs at Stage 3 were probably culled at 6–12 months of age and may largely represent pigs slaughtered in the autumn (Wright *et al.* 2014). Examples were found in all periods, and they provide 11% of the pig mandibles overall. There is much more evidence of animals slaughtered during their second year (Stages 4–5): pigs of this age provide over half the mandibles in Period 5, and 40% or more in samples from subsequent periods. Most of these were probably killed between 18 and 24 months of age, which may have largely coincided with the autumn and winter culling of pigs nearing full size after fattening through pannaging. Pigs slaughtered at this age are less prominent in the relatively small early and middle Anglo-Saxon samples (20%). Although a substantial proportion of pigs survived into at least their third year (Stages 6–7), relatively few of these had advanced wear on their third molars. There are many fewer mandibles of mature pigs compared to the middle Anglo-Saxon site at Wicken Bonhunt in Suffolk, which might have specialised in pig production, exporting pork joints to *wics* (Crabtree 2014). Nor is there evidence for any significant increase in the slaughter of younger pigs in the later medieval period, an intensification possibly associated with an increase in sty husbandry (Hamilton and Thomas 2013).

Epiphyseal fusion data generally support the mandible evidence. The higher percentages of unfused specimens in Periods 7–8 reflect the inclusion of bones from the juvenile ABGs. However, not a single epiphysis from the latest-fusing group was fused in any period, indicating that very few pigs represented were over four years of age. The higher percentages of unfused distal tibiae and metapodials in Period 4 support the mandible ageing evidence which suggests that more pigs were slaughtered slightly earlier in their second year in the middle Anglo-Saxon settlement.

Unfortunately, the sexes of canines in mandibles and maxillae were not routinely recorded, so it was impossible to observe whether they were equally or unequally represented, nor whether there were variations in the ages at which sows and boars were slaughtered. Higher percentages of the mandibles of females were found at West Cotton, Northamptonshire than on some high-status sites where there was greater focus on the acquisition of boars (Albarella and Davis 1994: 17)

Table 10.8: Pig mandibular ageing data

	3	4	5	6	7	8	Total	%	Cumulative %
Stage 1	-	-	-	-	-	-	0	0.0	0.0
Stage 2	-	3	4	-	1	2	10	8.3	8.3
Stage 3	1	5	1	2	3	2	14	11.7	20.0
Stage 4	2	2	3	4	1	-	12	10.0	30.0
Stage 4–5	-	-	3	3	-	3	9	7.5	37.5
Stage 5	-	2	16	1	6	3	28	23.3	60.8
Stage 5–6	-	-	1	1	-	-	2	1.7	62.5
Stage 6	1	4	5	4	1	3	18	15.0	77.5
Stage 6–7	-	1	3	-	-	-	4	3.3	81.8
Stage 7	6	3	5	3	3	2	22	18.3	100.0
Total	**10**	**20**	**41**	**18**	**15**	**15**	**119**		

Stage 1 = 4th deciduous premolars (dp4) not in wear
Stage 2 = dp4 in wear; 1st molar (M1) not in wear
Stage 3 = M1 in wear; 2nd molar (M2) not in wear
Stage 4 = M2 in wear; 3rd molar (M3) and permanent premolars not in wear
Stage 5 = P4 in wear; M3 not in wear
Stage 6 = M3 at Grant wear stages a–b
Stage 7 = M3 at Grant wear stages c–k

Pig metrical data

The high percentage of unfused bone severely limited the number of measurements taken, and no measurements of teeth were taken. Summaries of the most common measurements are given in Digital Appendix A7 but there are too few for detailed analysis.

Horse

Horse abundance

Although it is assumed that most, if not all, the equid bones are from horses, the presence of mules cannot be ruled out. Horse elements provide 6% of the overall assemblage, both including and excluding ABGs (Tables 10.1 and 10.2). Period percentages vary between 3% (Period 3) and 9% (Period 6). There is much less evidence for butchered horse bones (2%) than for cattle (7%); horsemeat was probably only eaten by humans in exceptional cases because of religious taboos (except perhaps in the pre-Christian 5th–7th centuries), although this does not preclude it being given to dogs. It is therefore not surprising that horse bones were less commonly recorded in deposits associated with buildings (2%) than in deposits located in areas not central to occupation and food consumption. Horse provides 5% of the mammal pseudo-MNE counts, ranging between 3% and 7%.

Comparing the NISP counts of horse and cattle allows comparisons of large mammals of similar size. Horse provides 13% of the total cattle and horse counts. The lowest percentage was in Period 3 (7%), partly reflecting that most of the assemblages from the early Anglo-Saxon period derived from buildings, in which only six elements of horse were found (Tables 10.2 and A7.5). In later periods, horse provides between 11% and 17% of the total cattle and horse elements, excluding ABGs. Percentages of horses tend to be greater on medieval rural sites than in towns (Albarella 2005), and Stratton fits this rural pattern.

Horse Associated Bone Groups (ABGs)

Four ABGs provided a total of 141 bones. The head and neck of the mature adult male found in pit G1105 in L10 (Phase 4a) was recovered along with several hyoids, indicating that the flesh was still present when it was buried, presumably shortly after death. The upper fills G5119 of Phase 4b well G5313 and structure G1478 (L68, Period 7) also produced sets of associated vertebrae. The former includes two small groups of vertebrae, which could have belonged to the same horse, while several of the foot bones from the same feature also could have been associated, both with each other and with the vertebrae. The horse vertebrae and ribs from structure G1478 were in the same beam slots as a juvenile pig and two dogs. Most of the associated horse

bones from pond G5914 (L84, Period 8) also consist of vertebrae and ribs, while other bones from the same feature could additionally have belonged to the same animal.

All four horse ABGs belonged to adult animals and although none of them is complete, there is no evidence of butchery. Another common feature is evidence for pathology: two of the lumbar vertebrae from G1478 have exostoses, and some of the thoracic vertebrae from the groups in G1478 and G5914 have pathologically fused together. In the latter case there are associated exostoses on both scapulae. Bone degeneration is more likely to be found in mature animals, and there are several possible causes for these pathologies. However, such conditions could have been exacerbated by stresses associated with riding and other work (Pluskowski *et al.* 2010). All the horse burials could have been from animals that either died of old age or were put down after they had finished their working lives.

Horse element representation

The presence of the partial horse skeleton is reflected in the higher percentages of bones of the trunk in the phases involved (Table 10.9). Loose teeth are a prominent element in the horse assemblages from all periods, their large size making them easier to find during normal excavation than teeth of other mammals. There are no major discrepancies in the relative abundance of the larger bones, although metacarpals are particularly well represented. As in the case of other species, smaller elements are under-represented because of retrieval bias.

Table 10.9: Horse element counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Skull	-	3	1	-	3	-	-	-	4	1	1	5	18	3.0
Mandible	-	3	5	-	3	4	3	1	7	6	1	-	33	5.6
Hyoid	-	4	-	-	-	-	-	-	-	-	-	1	5	0.8
Loose Teeth	3	29	5	3	10	4	4	1	15	4	11	6	95	16.0
Scapula	-	2	5	-	2	2	-	-	3	-	1	4	19	3.2
Humerus	-	1	-	-	1	-	-	-	4	1	2	5	14	2.4
Radius	1	4	1	-	-	3	3	1	8	2	4	6	33	5.6
Ulna	-	1	-	-	-	-	-	-	-	1	1	4	7	1.2
Pelvis	4		3	-	-	2	4	-	5	1	2	2	23	3.9
Femur	2	2	7	2	-	2	2	1	3	-	2	7	30	5.1
Tibia	2		3	1	2	1	1	1	8	3	2	6	30	5.1
Carpals	-	4	-	-	-	-	-	-	1	-	1	-	6	1.0
Astragalus	2	2	1	-	1	1	-	-	2	-	1	1	11	1.9
Calcaneus	1	-	-	-	1	-	2	-	1	-	-	-	5	0.8
Other Tarsals	-	-	-	-	1	-	-	-	-	-	2	-	3	0.5
Metacarpal	-	2	7	-	4	1	2	1	13	8	6	1	45	7.6
Metatarsal	-	-	1	1	3	2	1	1	9	1	4	5	28	4.7
Metapodials	-	2	2	-	-	3	2	2	6	1	4	1	23	3.9
Phalanx 1	-	3	3	-	5	2	1	-	7	1	2	1	25	4.2
Phalanx 2	1	1	1	-	3	-	1	-	3	-	2	-	12	2.0
Phalanx 3	-	-	-	-	1	-	-	-	1	1	3	-	6	1.0
Sesamoids	-	1	-	-	-	-	-	-	-	-	-	-	1	0.2
Atlas (VC1)	-	1	1	-	1	-	-	-	-	-	-	1	4	0.7
Axis (VC2)	-	1	1	-	1	-	-	-	1	-	-	1	5	0.8
Cervical V	2	5	-	-	5	-	-	-	-	-	1	3	16	2.7

Element	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%
Thoracic V	-	1	-	-	-	-	-	-	-	-	7	19	27	4.6
Lumbar V	-	-	2	-	4	-	-	-	-	-	2	5	13	2.2
Sacral V	-	-	5	-	1	-	-	-	-	-	1	-	7	1.2
Ribs	-	1	-	-	-	-	-	-	-	-	8	39	48	8.1
Total	**18**	**73**	**54**	**7**	**52**	**27**	**26**	**9**	**101**	**31**	**71**	**123**	**592**	
Body Area	**3**	**4a**	**4b**	**4**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**	
Cranial	3	39	11	3	16	8	7	2	26	11	13	12	151	
Scapula/Pelvis	4	2	8	0	2	4	4	0	8	1	3	6	42	
Forelimb	1	6	1	0	1	3	3	1	12	4	7	15	54	
Hindlimb	4	2	10	3	2	3	3	2	11	3	4	13	60	
Feet	4	15	15	1	19	9	9	4	43	12	25	9	165	
Trunk	2	9	9	0	12	0	0	0	1	0	19	68	120	
Body Area %														
Cranial	16.7	53.4	20.4	42.9	30.8	29.6	26.9	22.2	25.7	35.5	18.3	9.8	25.5	
Scapula/Pelvis	22.2	2.7	14.8	0.0	3.8	14.8	15.4	0.0	7.9	3.2	4.2	4.9	7.1	
Forelimb	5.6	8.2	1.9	0.0	1.9	11.1	11.5	11.1	11.9	12.9	9.9	12.2	9.1	
Hindlimb	22.2	2.7	18.5	42.9	3.8	11.1	11.5	22.2	10.9	9.7	5.6	10.6	10.1	
Feet	22.2	20.5	27.8	14.3	36.5	33.3	34.6	44.4	42.6	38.7	35.2	7.3	27.9	
Trunk	11.1	12.3	16.7	0.0	23.1	0.0	0.0	0.0	1.0	0.0	26.8	55.3	20.3	
Butchered	0	0	1	2	1	1	3	0	1	1	0	0	10	
% (ex teeth)	0	0	2	50	2	4	14	0	1	4	0	0	2	

Horse ageing evidence

Given the importance of keeping horses as working animals, it is not surprising to find that bones of adult horse predominated. The fusion data include only two unfused early-fusing epiphyses from foals that died under a year old, whereas 83 specimens are fully fused. Only one out of 63 surviving late-fusing epiphyses has not fused. Therefore, nearly all the horses represented in all periods were over four years old, and were probably substantially older in many cases. No detailed records were made of mandibular teeth ageing data to provide further information about equine life expectancy.

Horse metrical data

Summary metrical data are provided in Digital Appendix A7. Estimated withers heights based on greatest lengths of limb bones (Vitt 1952) range from 118cm (*c.* 11 hands) to 149cm (*c.* 14 hands). On average, they represent the size of large ponies (135cm; 13 hands), and this average size is typical of that found in medieval Europe. There are too few bones available from different periods to assess chronological trends in detail.

Dogs

Over 1100 elements of dog were recorded, providing 11% of the identified mammal assemblage (Table 10.1). However, these totals are inflated by the substantial number found in ABGs: 958 (86%) of the dog elements come from 21 ABGs (from 23 dogs), which is a clear indication that dog carcasses were not subjected to the high degree of taphonomic destruction and dispersal suffered by the principal food species. Dog ABGs were recorded in every period and range from largely complete skeletons to small groups of ten bones or fewer.

Substantial parts of two adult dogs were found in SFB G3163 (Period 3, L5). The more complete skeleton (109 bones) provides estimates of shoulder height from limb bone lengths (Harcourt 1974) of 48–52cm. This was an animal slightly larger than a modern

springer spaniel (Grieve 2012: 91–2). No baculum (os penis) was recovered, which indicates that the dog was female. The second dog was larger, producing withers height estimates of 66–72cm – similar in size to a modern greyhound. Hamerow (2006) argues that ABGs associated with SFBs were purposeful depositions associated with foundation or termination events. This interpretation has been challenged by Morris and Jervis (2011) and Crabtree (2013), who suggest that there could have been many factors that created these ABGs. The incompleteness of the larger dog, for example, suggests that it was redeposited.

Three middle Anglo-Saxon ABGs were recorded. The trunk and forelimbs of a puppy were recovered from pit G3458 (L12, Phase 4a); all its limb bone epiphyses are unfused, indicating that the dog was probably less than six months old. Three forelimb bones of an adult were found in SFB G3155 (L16, Phase 4b), which again suggest that the original burial was heavily disturbed and redeposited. The skeleton is of a medium-sized dog of *c*. 45cm in height. In contrast, the dog from L20 (G217) was afforded its own burial, which was not disturbed. This skeleton also lacks a baculum and therefore belonged to an adult female, which, like the larger dog from SFB G3163, had suffered minor rib fractures earlier in life. Its shoulder height estimates ranged between 55cm and 63cm.

Four of the five dog ABGs from Period 5 were found in ditches, the other in the upper fills (G5119) of Phase 4b well G5313. This in fact consists of two small ABGs which may have belonged to the same adult female, with an estimated shoulder height of 49cm.

Three of the dog ABGs were found in L41 (Phase 5b). The most complete belonged to another medium-sized adult female with an estimated shoulder height of 49–55cm. This skeleton had suffered a more severe trauma, which had caused the radius and ulna shafts to fuse. It also suffered from curvature of the lower spine. The partial skeleton of another adult was found in ditch G5194. Another small ABG, consisting of vertebrae and hind limbs, was found in ditch G3388 (Period 5, L37). This belonged to a dog with an estimated shoulder height of 47cm.

Three dog ABGs were found in Period 6 deposits. The most complete skeleton belonged to an adult male from ditch G5053 (L62). Shoulder height estimates range between 51cm and 53cm. A less complete skeleton of a second adult male was retrieved from pit G1232 (L52) in association with the cattle skull fragments; shoulder height estimates indicate that it was quite a large animal of around 60.5cm in height. Isolated complete limb bones of dogs of similar height (*c*. 59cm, 62cm and 65cm) were represented in other Period 6 contexts. Four foot bones of a young puppy were recovered from ditch G2608 (L54).

Eight ABGs from nine adult dogs were recovered from late medieval (Period 7) features. Five were found in ditches whilst the others were found in a variety of building contexts. Six of the ABGs consist of 15 bones or fewer, indicating the carcasses had been heavily disturbed and probably redeposited. One of these, from ditch G18 (L63), had a shoulder height of *c*. 49cm. A small ABG from ditch G5508 (L74) belonged to a dog around 53cm tall. A third, recovered from posthole G2513 (L69), belonged to a very large dog of around 71cm in height. Another, from ditch G1053 (L75, Phase 7b) was from a medium-sized dog with a shoulder height of *c*. 44cm. Finally, an ABG from L75 (in ditch G1357) belonged to a smaller dog of around 35–37cm high.

The largest ABG from Period 7 came from ditch G5 (L63) and belonged to a mature male, with substantial evidence of arthritis in its spinal column. Shoulder height estimates for this skeleton rang between 55cm and 60cm (mainly 58–60cm). Two dogs are represented by 69 bones in structure G1478 (L68), along with several other ABGs. One of these has a shoulder height of around 38–44cm; the second is a smaller dog of around 33cm.

A partial skeleton of another adult dog was found in Period 8 ditch G1315 (L82), which was around 36–37cm tall and had survived a severe fracture of its left foot. A femur and tibia from water-pit G5901 (L84) probably belonged to the same large dog, with a shoulder height of 68–72cm.

The high incidence of ABGs account for the much higher proportion of vertebrae and ribs recorded in the dog assemblage than for other mammals (Table 10.10). The relatively high incidence of foot bones is partly due to the fact that dogs have more toes than cattle, sheep/goat and horse, but also because foot bones were often found still articulated, again reflecting that they were not processed.

Reviewing the sizes of dogs from all periods, they ranged from around 33cm to 72cm in height, which is roughly the size of fox terriers through to greyhounds. The largest were nearly the size of wolves, but the skull from the large Anglo-Saxon specimen has characteristics more diagnostic of domestic dog, and the two large canids from the later medieval and post-medieval deposits are from a period by which it is believed that wolves had become extinct or at least very rare in England. Most of the Anglo-Saxon dogs were of medium size with heights of 45–55cm, which lies within the range of the most common sizes of Anglo-Saxon dogs. The largest specimen (66–72cm) is towards the top

Table 10.10: Dog element counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	5a	5b	5	6a	6	7b	7	8	Total	%
Skull	2	3	2	1	8	1	-	5	-	10	2	34	3.1
Mandible	3	1	6	1	6	2	1	8	2	15	-	45	4.1
Hyoid	-	-	1	-	2	-	-	-	-	-	-	3	0.3
Loose Teeth	-	4	2	2	4	2	-	2	1	1	1	19	1.7
Scapula	3	1	3	-	3	-	-	5	-	7	1	23	2.1
Humerus	4	2	2	2	4	-	-	7	1	9	5	36	3.2
Radius	3	3	3	4	2	1	-	2	4	6	2	30	2.7
Ulna	5	3	6	6	1	1	-	5	4	6	1	38	3.4
Pelvis	3	1	4	3	3	1	-	3	1	6	1	26	2.3
Femur	3	3	2	-	2	1	-	4	1	6	3	25	2.3
Tibia	4	1	3	1	2	2	1	9	2	10	2	37	3.3
Fibula	2	-	1	-	2	-	-	3	-	3	-	11	1.0
Carpals	-	-	4	-	4	-	-	6	-	1	-	15	1.4
Astragalus	-	-	-	-	2	-	-	-	-	-	-	2	0.2
Calcaneus	1	1	1	-	2	1	-	2	-	-	-	8	0.7
Other Tarsals	-	-	-	-	8	-	-	-	-	-	-	8	0.7
Metacarpal	9	2	4	-	9	-	-	9	1	9	5	48	4.3
Metatarsal	3	1	5	-	6	2	-	6	3	9	1	36	3.2
Metapodials	2	3	3	2	1	-	-	3	2	2	-	18	1.6
Phalanx 1	8	-	7	-	12	1	-	5	-	3	1	37	3.3
Phalanx 2	4	-	1	-	4	1	-	2	-	-	-	12	1.1
Phalanx 3	2	-	3	-	3	-	-	1	-	-	-	9	0.8
Sesamoids	-	-	-	-		-	-	-	-	-	-	0	0.0
Atlas (VC1)	1	-	-	1	2	1	-	2	-	4	-	11	1.0
Axis (VC2)	1	-	-	-	2	1	-	-	-	2	-	6	0.5
Cervical V	8	-	3	-	10	-	-	7	-	14	-	42	3.8
Thoracic V	15	-	13	-	13	-	-	14	-	14	1	70	6.3
Lumbar V	12	-	7	1	7	2	-	5	-	6	-	40	3.6
Sacral V	2	-	1	1	2	-	-	-	-	1	-	7	0.6
Caudal V	2	-	6	-	5	-	-	1	-	-	-	14	1.3
Vertebrae	-	5	-	-	-	-	-	-	-	-	-	5	0.5
Baculum	-	-	-	-	-	-	-	2	-	1	-	3	0.3
Sternebrae	10	-	5	-	6	-	-	6	-	6	-	33	3.0
Ribs	74	15	60	-	22	-	-	79	2	78	16	346	31.2
Costal Cart.	-	-	12	-	-	-	-	-	-	1	-	13	1.2
Total	**186**	**49**	**170**	**25**	**159**	**20**	**2**	**203**	**24**	**230**	**42**	**1110**	
Body Area	**3**	**4a**	**4b**	**5a**	**5b**	**5**	**6a**	**6**	**7b**	**7**	**8**	**Total**	
Cranial	5	8	11	4	20	5	1	15	3	26	3	101	

Element	3	4a	4b	5a	5b	5	6a	6	7b	7	8	Total	%
Scapula/Pelvis	6	2	7	3	6	1	0	8	1	13	2	49	
Forelimb	12	8	11	12	7	2	0	14	9	21	8	104	
Hindlimb	9	4	6	1	6	3	1	16	3	19	5	73	
Feet	29	7	28	2	51	5	0	34	6	24	7	193	
Trunk	125	20	107	3	69	4	0	116	2	127	17	590	
Body Area %													
Cranial	2.7	16.3	6.5	16.0	12.6	25.0	50.0	7.4	12.5	11.3	7.1	9.1	
Scapula/Pelvis	3.2	4.1	4.1	12.0	3.8	5.0	0.0	3.9	4.2	5.7	4.8	4.4	
Forelimb	6.5	16.3	6.5	48.0	4.4	10.0	0.0	6.9	37.5	9.1	19.0	9.4	
Hindlimb	4.8	8.2	3.5	4.0	3.8	15.0	50.0	7.9	12.5	8.3	11.9	6.6	
Feet	15.6	14.3	16.5	8.0	32.1	25.0	0.0	16.7	25.0	10.4	16.7	17.4	
Trunk	67.2	40.8	62.9	12.0	43.4	20.0	0.0	57.1	8.3	55.2	40.5	53.2	

end of the range known from this period (Grieve 2012: 84–6). The five medieval (Period 6) dogs were all larger than 50cm, and most were over 60cm. The greatest size range was found in the late medieval and post-medieval samples, where estimated shoulder heights of the ten dogs ranged between 33cm and 72cm. Although some dogs may have been kept as pets and guard dogs, most, if not all, are likely to have been working dogs which were used for herding. It is striking that there were no bones of very small dogs, and this supports O'Connor's (1992) suggestion that small dogs are more likely to have been kept in towns.

Most of the dogs lived until maturity, and some survived quite significant traumas and other skeletal deformations. There were no observations of any skinning or other processing marks on any of the dog bones, and the high incidence of ABGs indicates that their carcasses were usually deposited complete. A few were given discrete burials, but others appear to have been deposited in various ditches and other features around the settlements. Some may have originally been dumped in middens, before parts of their carcasses were eventually redeposited along with other discarded bones and artefacts into disused buildings, pits and ditches.

Cats

Cat bones were recovered from every period, but only 108 were identified. Seventy-eight of these (72%) were assigned to four ABGs (Tables 10.1 and A7.2), two of which were found in Phase 4b wells in L23. The largest ABG was found in a Period 5 pit (G3041, L28) and a small group was collected from a Period 7 ditch (G5917, L65). As in the case of dogs, the large proportion of bones in ABGs accounts for the high incidence of vertebrae and ribs in the cat assemblage (Table 10.11). In contrast to dogs, only one of the cat ABGs belonged to an adult. Immature cats are quite common in medieval assemblages, and it has been suggested that this reflects that some were exploited for their skins (Serjeantson 1989). Skinning marks were noted on a cat mandible at West Cotton, Northamptonshire (Albarella and Davis 1994); however, no records of butchery or skinning were recorded at Stratton. Cats would have been kept as pets and to control vermin on the farms.

Deer

Two bones of roe deer were recorded, but from an unphased context. The only find of fallow deer consists of a skull of an adult female from Period 8 water-pit G5901 (L84). Small quantities of red deer were recorded in every period, but only 20 elements were recorded (Table 10.1), representing just 0.3% of the mammal assemblage (Table 10.2). Eight of these elements are parts of the beam or tines of antlers, some of which have been worked (Table 10.12), indicating that the production of antler artefacts occasionally took place within the settlement. One mandible from Period 8 has evidence of butchery associated with the removal of the tongue, and a metacarpal from Period 7 has been split for marrow.

The rarity of deer bones from any of the periods indicates that venison was rarely eaten. Deer hunting and venison consumption were the privilege of people of high status in these periods (Sykes 2010), but food or butchery waste was not entering the archaeological record even in the vicinity of the manorial centres at Stratton.

Table 10.11: Cat elements counts (NISP) by Phase (including ABGs)

Element	3	4a	4b	4	5a	5	6	7b	7	8	Total	%
Skull	-	-	-	-	-	1	-	-	-	-	1	0.9
Mandible	-	-	2	-	-	3	1	-	-	1	7	6.5
Loose Teeth	1	-	-	-	-	-	-	-	-	-	1	0.9
Scapula	-	-	-	-	-	-	-	-	1	-	1	0.9
Humerus	-	1	-	1	-	2	1	2	4	2	13	12.0
Radius	-	-	1	-	-	2	-	1	2	-	6	5.6
Ulna	-	-	3	-	-	2	-	1	2	-	8	7.4
Pelvis	-	-	2	-	1	2	1	-	1	-	7	6.5
Femur	-	-	1	-	-	2	-	-	1	1	5	4.6
Tibia	-	-	-	1	-	2	-	-	1	2	6	5.6
Fibula	-	-	1	-	-	1	-	-	1	-	3	2.8
Metacarpal	-	-	-	-	-	2	-	-	-	-	2	1.9
Metatarsal	-	-	2	-	-	4	-	-	-	-	6	5.6
Metapodials	-	-	1	-	-	-	-	-	-	-	1	0.9
Phalanx 1	-	-	-	-	-	1	-	-	-	-	1	0.9
Thoracic V	-	-	3	-	-	5	-	-	-	-	8	7.4
Lumbar V	-	-	5	-	-	1	-	-	-	-	6	5.6
Sacral V	-	-	1	-	-	3	-	-	-	-	4	3.7
Ribs	-	-	8	-	-	14	-	-	-	-	22	20.4
Total	**1**	**1**	**30**	**2**	**1**	**47**	**3**	**4**	**13**	**6**	**108**	

Table 10.12: Red deer element counts (NISP) by Phase

Element	3	4a	4b	5a	5	6	7b	7	8	Total	%
Antler	2	1	-	-	1	1	1	1	1	8	40.0
Mandible	-	-	-	1	-	-	-	-	1	2	10.0
Loose Teeth	-	-	1	1	-	-	-	1	-	3	15.0
Ulna	-	-	-	1	-	-	-	-	-	1	5.0
Tibia	-	-	-	-	-	1	-	-	-	1	5.0
Metacarpal	-	-	1	-	-	1	-	1	-	3	15.0
Metatarsal	1	-	-	-	-	-	-	1	-	2	10.0
Total	**3**	**1**	**2**	**3**	**1**	**3**	**1**	**4**	**2**	**20**	

Hares and rabbits

Although many rabbit bones were recovered (Table 10.1), it is likely that most, if not all, were modern intrusions. This would certainly be the case with those found in Anglo-Saxon deposits, as rabbits were not (re) introduced in England until after the Norman invasion (Sykes and Curl 2010). It is conceivable that a few of the rabbit bones from later medieval and post-medieval periods were not intrusive, but the fact that many were found in associated bone groups supports the belief that they were intrusions.

The same could account for some of the hare bones, although hares were resident in Britain throughout these periods. However, as none of the hare bones formed ABGs, it is much more likely that these were bones of animals exploited during the periods involved. However, only eight hare bones were recovered (Table 10.1), never providing more than 0.3% of the mammal NISP counts, supporting the view that the products of the chase were rarely consumed here.

Other mammals

Although represented only as ABGs, it is less likely that the badger bones are modern intrusions, as their remains came from the upper fills of two middle Anglo-Saxon wells. Partial skeletons of a juvenile and adult were found in G3150 (L15), and three forelimb bones of an immature badger were recorded from G3160 (L12). It is conceivable these were victims of falls, but given the incompleteness of the animal from G3160 in particular, these could have been from carcasses of animals that had been decaying elsewhere before being finally deposited in the wells. No butchery was recorded on any of the bones.

The femur of a polecat or ferret was recorded in ditch G2315 (L80, Phase 7b). Bones of polecats/ferrets were recorded in small numbers in medieval and post-medieval deposits at West Cotton (Albarella and Davis 1994). Polecats may have been hunted for their skins, and domesticated ferrets were used to hunt rabbits (Owen 1969). Digital Appendix A7 lists the species of small mammals recorded; these were mainly retrieved in sieved samples along with many small mammal bones that were not further identified. Identified specimens, however, were not numerous in any period, precluding detailed discussion about ecological conditions.

Birds

Bird bones were found in every phase, providing nearly 700 elements, including a few that remain unidentified (Table 10.13). This total includes 302 bones from ten ABGs. The assemblage is dominated by bones of poultry.

Domestic fowl (chicken)

Bones of domestic fowl dominate the avian assemblage in all periods (Table 10.13), and include four ABGs. The earliest of these came from scoop G274 (Phase 4b, L19) and consists of 22 bones from an adult bird. As no spur was recorded on the tarsometatarsus, it was probably a hen. Thirty bones of another adult hen were found in pit G584 (Period 5, L33). Two smaller ABGs were recorded in later deposits: seven bones from an adult were recorded in ditch G3828 (Phase 6a, L48); and nine bones including a spurred tarsometatarsus (probably from a male) were found in structure G334 (Period 7, L66). No butchery marks were noted on any of these, or indeed on any of the other bird bones.

Excluding ABGs, 65% of the bird bones belonged to domestic fowl, and this percentage ranged between 58% and 79% in the various periods. This is fairly typical of contemporary domestic fowl assemblages at the national level (Serjeantson 2006: 134). Recovery biases using normal excavation techniques are likely to have resulted in their under-representation in relation to the larger domestic mammals. However, relative comparisons of abundance can still be made. Comparing domestic fowl and sheep/goat elements only, domestic fowl provide less than 4% of the early Anglo-Saxon assemblage and only 6% in the Period 5 features, but over 8% in the other periods. Fowl percentages in relation to pig are more variable; the lowest percentage was in Period 5 (9%), which mainly reflects the unusual dominance of pig in Phase 5a rather than a real decline in fowl. The fowl percentage is also low in relation to pig in the Period 3 assemblage (10%), but fowl provides over 20% of the total pig and domestic fowl bones in all the other Anglo-Saxon and medieval periods (Table 10.13). Percentages of fowl of the total cattle, sheep/goat, pig and fowl NISPs rose from less than 2% in the early Anglo-Saxon assemblage to over 6% in Period 7, before declining to 4% in the post-medieval assemblage. Chickens generally became more common during the Anglo-Saxon and medieval periods in Britain (Kristopher Poole pers. comm.). This trend was generally reflected at Stratton but there were fluctuations within and between periods and settlement areas. The average percentage of fowl on English later medieval village sites is around 5%, significantly lower than the average for high-status sites (*c.* 11%; Kristopher Poole pers. comm.).

Variations in body-part representation of domestic fowl again reflect the relative size and fragility of the elements involved. This, for example, explains the low numbers of carpometacarpus, sternum and fibula. Cranial elements are also very poorly represented. About a quarter of the fowl bones in all periods came from immature birds. These include very young chicks,

Table 10.13: Bird NISP counts by Phase

Species	3	4a	4b	4	5a	5b	5	6a	6	7b	7	8	Total	%	Sieved
Including ABGs															
Fowl (galliform)	11	28	47	3	9	10	53	16	31	20	56	24	308	46.0	27
Goose	8	17	8	3	2	2	4	-	18	1	31	4	98	14.6	5
Duck	-	-	-	-	-	-	-	-	1	-	1	3	5	0.7	-
Pigeon	-	1	1	-	-	-	1	-	5	3	205	1	217	32.4	1
Crane	-	-	-	-	-	-	-	-	-	-	-	1	1	0.1	-
Plover	-	1	-	-	-	-	-	-	-	-	-	-	1	0.1	-
Wader	-	1	-	-	-	-	-	-	-	-	-	-	1	0.1	-
Buzzard	-	1	-	-	-	-	-	-	-	-	-	-	1	0.1	-
Corvid	-	-	1	-	-	-	2	-	4	16	6	6	35	5.2	-
Passerine	-	-	-	-	-	-	-	-	-	-	1	1	2	0.3	1
Total Identified	**19**	**49**	**57**	**6**	**11**	**12**	**60**	**16**	**59**	**40**	**300**	**40**	**669**		**34**
Unidentified Bird	1	4	2	-	1	-	-	-	6	5	8	1	28		9
Total	**20**	**53**	**59**	**6**	**12**	**12**	**60**	**16**	**65**	**45**	**308**	**41**	**697**		**43**
Excluding ABGs															
Fowl (galliform)	11	28	25	3	9	10	23	9	31	20	47	24	240	65.4	
Goose	8	17	8	3	2	2	4	-	18	1	16	4	83	22.6	
Duck	-	-	-	-	-	-	-	-	1	-	1	3	5	1.4	
Pigeon	-	1	1	-	-	-	1	-	5	3	3	1	15	4.1	
Crane	-	-	-	-	-	-	-	-	-	-	-	1	1	0.3	
Plover	-	1	-	-	-	-	-	-	-	-	-	-	1	0.3	
Wader	-	1	-	-	-	-	-	-	-	-	-	-	1	0.3	
Buzzard	-	1	-	-	-	-	-	-	-	-	-	-	1	0.3	
Corvid	-	-	1	-	-	-	2	-	1	7	6	1	18	4.9	
Passerine	-	-	-	-	-	-	-	-	-	-	1	1	2	0.5	
Total Identified	**19**	**49**	**35**	**6**	**11**	**12**	**30**	**9**	**56**	**31**	**74**	**35**	**367**		
% Fowl	57.9	57.1	71.4	50.0	81.8	83.3	76.7	100.0	55.4	64.5	63.5	68.6	65.4		
% Goose	42.1	34.7	22.9	50.0	18.2	16.7	13.3	0.0	32.1	3.2	21.6	11.4	22.6		
%Fowl: Goose	57.9	62.2	75.8	50.0	81.8	83.3	85.2	100.0	63.3	95.2	74.6	85.7	74.3		
Sheep/Goat	293	178	336	34	331	131	194	33	368	152	367	285	2702		
% Fowl: Sheep/Goat	3.6	13.6	6.9	8.1	2.6	7.1	10.6	21.4	7.8	11.6	11.4	7.8	8.2		
Pig	102	65	143	14	265	50	89	14	135	47	153	129	1206		
% Fowl: Pig	9.7	30.1	14.9	17.6	3.3	16.7	20.5	39.1	18.7	29.9	23.5	15.7	16.6		

which demonstrates that chickens were being bred on site, whereas older, but still immature birds were culled near full size for meat. The presence or absence of spurs was recorded on 13 tarsometatarsi, nine of which do not possess spurs and probably belonged to hens. Evidence for the presence of medullary bones was not recorded, so it is not known whether any of the fowl bones belonged to hens in lay. Too few measurements were taken to justify detailed analysis of stature.

Goose

All the measurable goose bones are the size of grey lag/domestic geese, and it is probable that these are all from birds bred in captivity. Ninety-eight bones of goose were identified, including 15 from two ABGs in Period 7 (Table 10.13): five bones of an adult bird were found in ditch G5917 (L65); and two goslings are represented by ten bones in ditch G485 (L68). These goslings were both quite young birds, which were probably bred nearby. Excluding ABGs, geese provide 23% of the bird NISP counts, which is slightly higher than the national average of goose percentages from Anglo-Saxon and medieval sites (Serjeantson 2006: 134). At Stratton, the highest percentages of geese are in the early and middle Anglo-Saxon assemblages. They are also comparatively well-represented in Period 6, but their percentages declined in the latest periods. Comparing the total number of fowl and goose bones with those of the three main domestic mammals, the percentage of domestic birds in the early and late Anglo-Saxon settlement at Stratton (3–4%) is fairly typical of contemporary sites from the Midlands, but the middle Anglo-Saxon percentage (8%) is higher than average (Holmes 2016). Similar percentages of poultry bones were found in the medieval periods, rising to 9% in Period 7 (Table 10.13).

Goose element representation is again typical of archaeological assemblages. The larger bones of the wing, particularly the humerus, were found in greater numbers than the leg bones, probably as the result of differential recovery rather than the preferential selection or importation of wing bones. Skulls and mandibles are poorly represented, probably due mainly to their fragility.

Pigeon

The most unusual feature of the avian assemblage is the presence of large numbers of pigeon bones found in association with late medieval dovecot G3500 (L64). A minimum of ten adult birds and four squabs are represented by 202 bones. These presumably were birds that died in or near the dovecot, their bodies remaining there after it was abandoned. A fragment of eggshell was also recovered. There is quite an even representation of the major bones, with the usual bias towards the larger elements. The low number of cranial elements and sterna in the pigeon assemblage mirrors the assemblages of fowl and goose, supporting the contention that the low representation of bird skulls and mandibles is mainly due to taphonomic factors.

The assemblage from Stratton has similarities with the pigeon assemblage from West Cotton, which is also associated with a medieval dovecot (Albarella and Davis 1994). Similarly to Stratton, around 30% of the pigeon bones at West Cotton belonged to juveniles. Pigeons were exploited for their meat and eggs, providing a source of fresh meat. In the early 15th century, large numbers of pigeons were supplied to the household of Dame Alice de Bryene at Acton Hall, Suffolk, where young squabs were eaten in the summer and adult birds in the autumn (Stone 2006: 157). The pigeons from the Stratton dovecot are likely to have supplied the manor rather than the households of the village. Pigeon bones were encountered elsewhere in these excavations but only in small numbers (Table 10.13).

Other birds

Surprisingly few duck bones were identified. None was recorded in Periods 3–5 and only five were found in assemblages from later periods (Table 10.13). Four of them were measured, with the two from medieval deposits being sufficiently large to be wild mallard or domestic duck. The pair of ulnae from Period 8 are slightly smaller but are likely also to have been from a domestic duck.

Bones of wild birds were very rarely recovered. There are single records of a plover, another unidentified wader, and a buzzard from middle Anglo-Saxon features. The buzzard may have been resident nearby, perhaps attracted as a scavenger. A tarsometatarsus from enclosure ditch G1315 (Period 8, L82) was recorded as crane. This would be a remarkable find, as it is believed that cranes became extinct in England by about 1600 (Boisseau and Yalden 1997).

Corvid bones were found in small numbers. The femur of a small corvid, possibly jackdaw, was the only corvid found in a Anglo-Saxon context; a jackdaw-sized ulna was also found in a post-medieval context. The remaining corvids were all the size of rooks or crows. Most of their bones were found in three small ABGs: two from immature birds found in pit G629 (Period 6, L50) and water-pit G5901 (Period 8, L84); and nine bones of an adult from a late medieval trackway (G5152, L80). The presence of partial skeletons implies that these birds were commensal, living on or near the settlement. One of the two recorded passerine bones is a good match for a song thrush.

The paucity of wild birds again signifies that the inhabitants were not of high status, having a much less

diverse diet than those living in the manors and castles of this period.

Amphibians and fish

Large numbers (967) of amphibian bones were recovered in some of the sieved samples. These were all recorded as frog, although it would be surprising if toads were not also present. Many of the amphibians would have become trapped in wells and other deep features, along with small mammals.

Given that sieving was successful in recovering many bones of small mammals and amphibians, the small number of fish bones may accurately reflect that they were not an important component of the diet. A total of 102 fish bones was recorded, but only two were further identified. Fish were not found in early Anglo-Saxon deposits, and only five and nine bones were recorded in Periods 4 and 5 respectively, representing only 0.1% and 0.2% of the total mammal and fish bones recorded. They were slightly more common in post-Norman contexts, providing 63 (1.7%) and 30 (0.8%) of these categories in Periods 6 and 7 respectively. They were less common in post-medieval contexts, contributing only seven bones (0.4%). The two bones that were further identified belonged to the cod family (Period 7 and 8), providing evidence for the import of stored marine fish (Locker 2002) and reflecting the increased importance of deep-sea fishing during the later medieval period (Barrett *et al.* 2004).

Chapter 11.
Discussion

Introduction

The original project design for the work at Stratton (BCAS 1990) set out with the aim of investigating an 'entire English village'. In retrospect it is clear that this ambitious target could never have been achieved. Even though the Stratton Residential Development Area (SRDA) covered an area of *c*. 40ha, there were significant elements of the former settlement that lay beyond its boundaries, such as parts of the late enclosures to the east and in particular the scheduled moat and manorial earthworks to the south-east. Subsequent work in the vicinity has revealed further medieval remains to the south of Dunton Lane, suggesting that this thoroughfare was also a focus of contemporary settlement.

Within the SRDA itself, a clear northern limit to the former settlement was successfully identified. However, some of the drawbacks of development-led archaeology were also apparent and account for the 'fractured' appearance of the investigation area. A significant part of the identified settlement fell within an area of public open space to the north-west where the ground level was to be raised, obviating the need for archaeological recording. Existing landscape elements such as woodland and routeways were also not available for investigation. Furthermore, the availability of heavy plant and access to parts of the site were at the developer's discretion in the first year of excavation: this particularly affected the west-central part of the site where, for example, it was not possible to expose the full extent of some buildings.

More familiar archaeological factors also placed limitations on the work. Extending westwards from London Road was a large expanse of post-medieval gravel workings (Figure 6.15), which partly destroyed the earlier settlement remains. At the southern end of the investigation area, feature density was so great that it compromised the legibility of the archaeological record: it is possible, for example, that evidence for earlier Anglo-Saxon settlement had been erased here by the later inhabitants. The other well-known limitations of rural archaeology were also at play: plough-truncation of features, particularly shallow ones and surfaces; finds residuality and intrusiveness; the difficulty of establishing precise and accurate feature-dating; and so on. The decade-long timespan of the project created its own challenge, with the need to maintain a uniformity of approach in both excavation and post-excavation analysis across a series of different excavations and with a changing body of staff.

Notwithstanding these *caveats*, Stratton remains a site of considerable significance. It may 'only' be a dependent township within an unremarkable parish in eastern Bedfordshire, but the incremental investigation of 12ha of its below-ground remains has elucidated the origin, development and shift of a rural settlement over a period spanning more than 1000 years. It makes a major contribution to both Anglo-Saxon and medieval rural settlement studies, especially as it lies in a part of the country that does not fall neatly into the traditional classifications of either nucleated or dispersed settlement pattern. Over the timespan covered, it is possible to explore a range of socio-economic evidence from peasant to manorial within the context of a subsidiary township. Some aspects of the evidence show a strong trend for continuity, such as the settlement's mixed agricultural base; others map the changing form of settlement over the centuries. The main developments are discussed below, highlighting the most important aspects of the data.

Settlement origins, development and demise

Early to middle Anglo-Saxon (Periods 3–4)

Stratton is first recorded in Domesday Book as *Stratone*, derived from *tun* (farm or estate) and *stræt*, i.e. the Roman road between Baldock and Sandy (Mawer and Stenton 1926: 102). The suffix *tun* has long been recognised as an indicator of a dependent or related settlement within a larger landholding; Ford (1979: 155) suggests that the earliest known example occurs in a charter of AD 767 in relation to Aston, near Stoke Priors in Worcestershire. Such settlements could take on a particular specialised function, e.g. Barton, 'the barley farm' or Ryton, 'the rye farm'. While the name Stratton may simply have defined the settlement through its geographical proximity to the Roman road, it is possible that the estate also had a specialised function in relation to the road itself, for example its maintenance or control. Blair (2018: 193, figure 68) observes that *stræt-tun* could be a 'functional' place-name compound, while Campbell (2000: 182–4) notes how maintenance of the communications system (particularly bridges and roads) was a key issue for the Anglo-Saxon state. The recovery of a gold mancus of Coenwulf from Biggleswade suggests that this route was

still in use across Biggleswade Common in the early 9th century (Williams and Cowell 2009), and archaeological evidence for regular flooding during the late Roman, Anglo-Saxon and medieval periods demonstrates that the road would have needed to be maintained to help people cross the Common (Dawson 1994: 131–3). Ultimately it was not possible to maintain the route, and a new crossing was created over the River Ivel to the north of the town at Hill Lane, taking the Great North Road to its present location on the west bank of the river. The earliest documented reference to repair of a bridge there dates to 1302 (Simco and McKeague 1997: 72), but the crossing is likely to have been in existence before then.

Dating for the Period 3 early Anglo-Saxon settlement at Stratton is problematic, but it was certainly in existence by the end of the 5th century, occupied by low-status subsistence farmers. It was established within the wider vestigial traces of a late Roman landscape, with the road to the west and a former Roman farmstead to the east, but on land which itself had been unused for Roman settlement. There is only firm evidence for early Anglo-Saxon settlement in the northern half of the excavated area (Figure 3.1), with at least ten sunken-featured buildings (SFBs) and a handful of isolated hearths, wells and other pits. However, the categorisation of features as early rather than middle Anglo-Saxon was carried out cautiously and largely relies on radiocarbon dating: it is therefore likely that some elements which are presented as middle Anglo-Saxon were in fact earlier.

In common with other sites of the period, the early Anglo-Saxon settlement had no obvious edges, boundaries or evidence for planning (Hamerow 2012: 70). Early Anglo-Saxon settlements at other sites such as Mucking are often thought to have shifted around the landscape, although contrasting evidence from apparently planned sites such as West Heslerton casts doubt on the general validity of this model (Hamerow 2012: 67–70). The relatively close spatial proximity of some of the early Anglo-Saxon buildings at Stratton does tentatively suggest the presence of a small, relatively static hamlet, although it is unlikely that there were ever more than a few buildings in existence at any one time.

The settlement at Stratton grew considerably during the middle Anglo-Saxon period, and, in a pattern seen elsewhere in the region, it was transformed by the creation of an extensive system of enclosures that was maintained over a prolonged period of time, with a least one phase of substantial remodelling (Hamerow 2012: 78–83). While the multi-faceted social and economic forces driving these changes are likely to have varied from site to site (Hamerow 2012: 88–94), in the case of Stratton, Blair (2013: 31–3) has suggested that the Church played a major role. The argument rests on the question of whether or not St Andrew's Church in Biggleswade was a middle Anglo-Saxon minster; the various strands of evidence are largely indirect, but in combination are persuasive and are discussed in Chapter 1.

The first phase of the extensive new enclosure system at Stratton took the form of ditches in parallel strips, with occasional box-like elements. Despite the disjointed appearance of its constituent ditches, which suggests that the enclosure system also featured less archaeologically visible elements such as hedgerows and banks, the recurrence of four-perch (and occasionally two-perch) spacings is still apparent in its layout (Figure 3.5). The enclosure system provided the framework for a diffuse but structured settlement of rectangular timber buildings and SFBs, and also a small inhumation cemetery containing 12 graves (see page 224). The latter's main period of use fell within the second and third quarters of the 7th century, with a few outlying graves that were dug at some point during the next hundred years. If St Andrew's was a minster church, as argued above, we can assume that the individuals buried within the settlement at Stratton were excluded from the minster graveyard, which would presumably have been reserved for churchmen or high-status laity. The cemetery neatly illustrates the type of short-lived, localised burial arrangements that communities had to adopt in the period before burial in a parish graveyard became the norm.

Later in the middle Anglo-Saxon period, the settlement at Stratton may have become more aggregated. Substantial post-built houses continued to co-exist with late examples of SFBs, but within a new enclosure system that was either less extensive or less well-preserved, and which was closely aligned on the former Roman road. This phase of the settlement also featured a small cemetery, of late 8th- to late 9th-century date. Neither of the two enclosure systems is closely dated in its own right, relying instead on the cemeteries that lay within them to act as *termini ante quos*. Blair (2013: 54) observes that this initial period of using grids to set out enclosure systems lasted from about AD 600 to AD 800; this, combined with the radiocarbon dates for the cemeteries (Tables 3.3 and 3.7), suggests a date within the period of AD 600–660 for the earlier enclosures, although the later enclosures can only be firmly said to have been created between then and AD 800. Despite their extensive nature, both enclosure systems proved to be relatively transient features of the Anglo-Saxon landscape, with the later set erased in turn by a new layout in Period 5.

Late Anglo-Saxon / Saxo-Norman (Period 5)

It is easy to overlook the fact that the region of Mercia where Stratton was located was invaded twice in the

late 9th / early 10th century, probably resulting on each occasion in a substantial replacement of existing estate-holders. Stratton was under Danish rule for less than 40 years (roughly from when Guthrum settled his army in East Anglia in AD 880, creating the Eastern Danelaw), during which time it lay within the Outer Danelaw – four shires ruled by earls based in Bedford, Huntingdon, Cambridge and Northampton. These settlements were pre-existing Mercian centres at important river crossings, well placed to control local communication by land and water. In each case the Danes enlarged them and strengthened their defences (Hart 1992: 10), rewarding the earls' followers with the estates within their territories.

While under Danish rule, Stratton would have been very much within the ambit of the Eastern Danelaw and its satellite territory based on Cambridge. This influence may have lessened after Edward the Elder took the submission of the Danes of Bedford in AD 914–15 and the region passed into West Saxon control, although Danes who submitted to King Edward in person were allowed to keep their land. Danish landowners were replaced by English thegns throughout nearly all Bedfordshire and Huntingdonshire; by contrast, many in Cambridgeshire and Northamptonshire were left in possession of their estates (Hart 1992: 16). In the case of south-west Bedfordshire, we also know from documentary evidence (Hart 1992: 16) that King Edward required his thegns to buy estates from the Danes in the early 10th century.

What effect would these changes have had on a settlement like Stratton? Dyer's view is that:

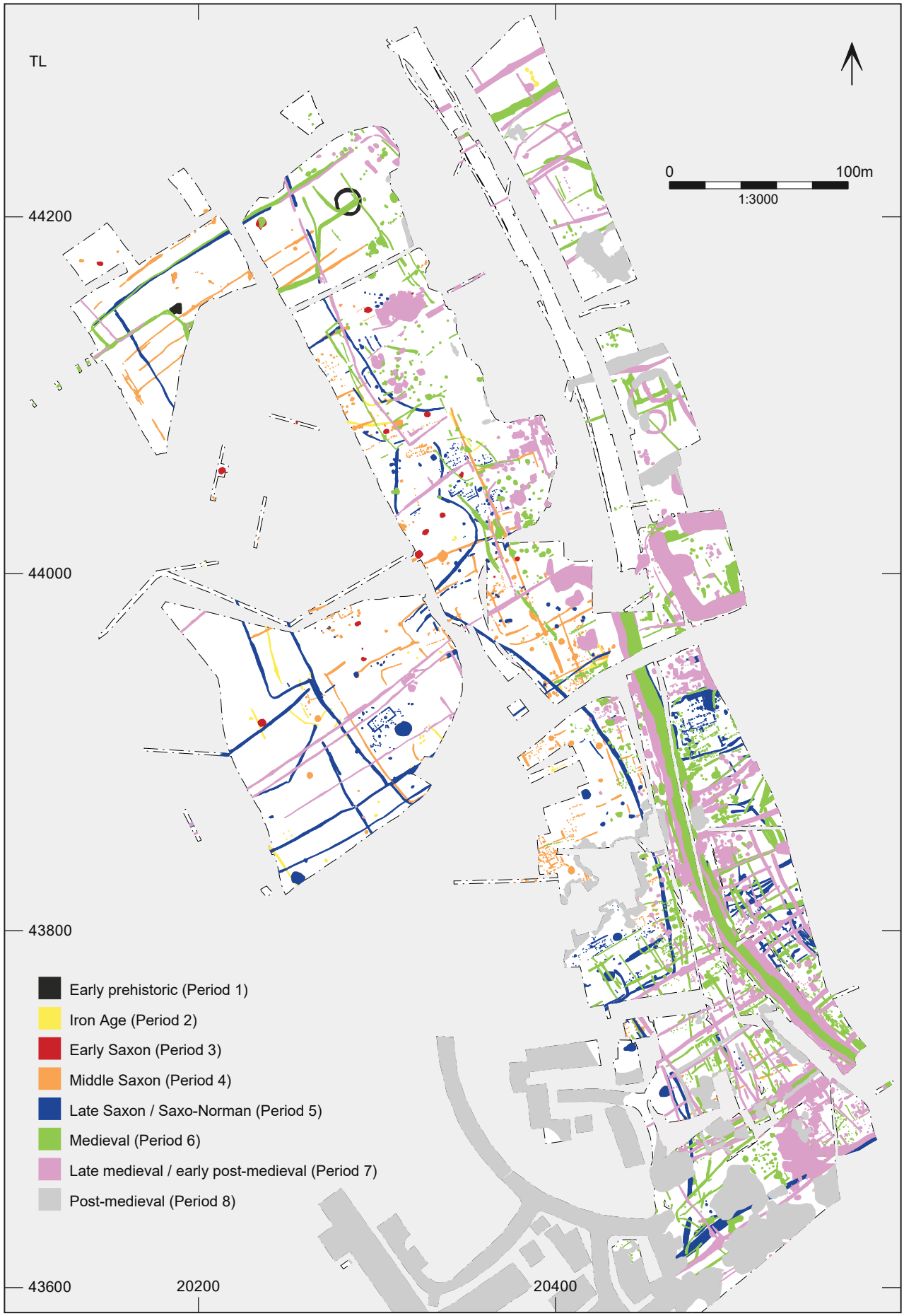
> The Scandinavians are unlikely to have played a major role as pioneering developers of new land. They found a countryside already cultivated, and took over existing settlements or infiltrated local communities. The more powerful took over the centres of the great estates, while their followers acquired the attached hamlets, and hastened the break-up of the estate by making these outer parts independent. (Dyer 2003: 47)

The large number of sokemen holding small manors in Holme in 1066 – and to a lesser extent in Stratton – may reflect Danish settlement in this part of the county. They were not necessarily the descendants of Danish settlers but they are testament to the disruption to traditional patterns of landholding and lordship that resulted from the two successive conquests of the region, particularly the emergence of a vigorous land-market (Hadley 2006: 89). In Bedfordshire in general there is little direct evidence for a Danish presence, although Holme is one of the few Scandinavian place-names in the county – from the Old Norse *holmr*, which originally meant an island but also, and perhaps more likely in this case, a piece of flat, low-lying ground by a river, submerged or surrounded in time of flood. Interestingly, Mawer and Stenton (1926: 102) note that the frequency of forms with a 'u' rather than an 'o' (e.g. *Hulmus*, *Hulme*) definitely points to Danish rather than Norse influence.

Significantly, there is archaeological evidence for a major change in settlement layout at this time. Phase 5a is characterised by extensive curvilinear ditches that extended almost the full length of the excavation area; they were completely different to the rectilinear layout of the middle Anglo-Saxon settlement, more closely resembling the earlier Butterwick-type enclosures commonly seen in Yorkshire, e.g. in Burdale (Richards and Roskams 2012: 114, figure 48). The arrangement appears to have endured from their creation in the late 9th century throughout the remainder of the Anglo-Saxon period, although the settlement reverted to a more rectilinear form at some point in the 12th century. The amount of physical work required to create this set of completely new settlement boundaries would have been at least as great as that required for each of the middle Anglo-Saxon enclosure systems in Period 4. If the influence of the Church was required for the earlier gridded efforts, then it is tempting to associate these new enclosures with the type of dramatic change that must have been occasioned by the arrival of new Danish or West Saxon lords. Davies describes a possibly comparable example from the conquest of Wales in the early 1280s: in taking over his vast new lordship of Denbigh, Henry Lacy, Earl of Lincoln 'declared majestically that the new land measurement to be used in Denbigh was to be a perch of twenty-one feet as gauged by the length of his own foot' (Davies 2000: 149) – as Davies says, literally stamping his authority on his new territory.

Stratton continued to expand as a settlement in the late Anglo-Saxon period, with the first observable signs of activity in the south-eastern part of the excavated area that was so densely utilised in the medieval period (Figure 4.1). Questions of contemporaneity and association remain, however: for example, there is no way of telling whether the buildings in area L28 (Phase 5) represent half a dozen or more houses clustered together, two or three larger farmsteads that each comprised more than one building, or just a single dwelling that needed to be rebuilt every few decades and changed its position slightly each time.

One of the late Anglo-Saxon buildings does stand out: longhouse G5108 lay on its own in the western part of the excavations, with a different layout and method of construction to those of its contemporaries. Although it was no larger than some of the others, there are indications that its occupants may have had higher status: the artefacts recovered from late Anglo-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Early prehistoric (Period 1)
Iron Age (Period 2)
Early Saxon (Period 3)
Middle Saxon (Period 4)
Late Saxon / Saxo-Norman (Period 5)
Medieval (Period 6)
Late medieval / early post-medieval (Period 7)
Post-medieval (Period 8)

Saxon deposits in the vicinity of this building include a whetstone of Norwegian Ragstone, a leaf-shaped spearhead and an arrowhead (L24); and a copper alloy dress pin and a cluster of horse-related items (L38). The backfill of the adjacent Phase 5a well also contained a notable concentration of pig bones, which are generally found in larger quantities on higher-status settlements in this period.

Courtney speculates (see page 13) that there may have been a late Anglo-Saxon antecedent to the house in Stratton owned by the Huntingdon manor. Building G5108 is the best candidate for this within the excavated part of the settlement, and may have been where a lower-ranking English thegn took up residence in the early 10th century. One might ordinarily expect a range of buildings rather than a single structure, but some other late Anglo-Saxon centres such as West Cotton, Northamptonshire were hardly more substantial in origin (cf. Chapman 2010: figure 4.4), and the nature of the excavations at Stratton makes it possible that further, unidentified buildings lie in the nearby unexcavated areas.

Medieval (Period 6)

By the end of the Anglo-Saxon period, Stratton had become a subsidiary township within the parish of Biggleswade, which was both a manorial and a hundredal centre. Reorganisation of the settlement's layout continued during the medieval period, with the extensive, curvilinear enclosure system that had been established in the late 9th century replaced by a broadly rectilinear layout encompassing a number of individual homesteads. Part of a moated enclosure was also revealed during the excavations: this was the more northerly of the two known moats, which may have been associated with the Sutton sub-manor in Stratton. The larger (now scheduled) moat to the south was probably the site of the main Huntingdon manor of Stratton. No significant structural remains were identified within the half of the moat that was excavated; assuming it was the site of a manor house, the building must have been located in the (unexcavated) eastern half. This supposition is supported by the recovery of mortar from features within the moated area, as well as a piece of lead window came from a nearby roadside ditch.

Habitation was confined to the southern half of the excavated area in the medieval period, as well as the unexcavated land to the east, with areas that had previously been used for Anglo-Saxon dwellings now reserved for solely agricultural and industrial pursuits. The buildings were, on average, more substantial than their Anglo-Saxon predecessors, with some using masonry in their construction for the first time. No specific functions can confidently be ascribed to any of them, although one posthole building (G2277) did appear to feature an apsidal end and a south porch. Documentary evidence reveals that St Mary's Chapel was established in the 12th century to serve the needs of a resident lord, and probably remained in use until the late 16th century. Identification of this building with G2277 remains highly speculative, but the presence within the excavations of artefacts such as stonework with 12th-century tooling, part of a pewter chalice and a mount forming one arm of a cross does, however, attest to an ecclesiastical presence within the settlement.

Notwithstanding the extent of the excavations, the material culture from medieval Stratton remained largely utilitarian. The ceramic profile is typical of a rural assemblage of modest status, while the reduced representation of craft activities reflects an increased reliance on traded goods. One striking discovery from either the end of Period 6 or the early part of Period 7, however, was a helmet found in an otherwise undated pit in the north-eastern corner of the excavation area. The circumstances behind the deposition of the helmet will forever remain unknown but the military and administrative career of John de Stratton (see page 9) illustrate how such an object is not necessarily as out of place on a settlement like Stratton as it might at first sight appear.

Late medieval to post-medieval (Periods 7–8)

Late medieval Stratton exhibited a significant degree of continuity with the Period 6 settlement. Changes are apparent within individual landholdings, fields and enclosure systems, but the overall layout of the settlement remained fundamentally unaltered. A notable new element in the landscape, however, is the cob-built dovecot associated with the more northerly moat. This has an exotic feel to it, as there is no tradition of cob building within the Ivel Valley – the Duke of Bedford's late 18th-century introduction of pisé (rammed earth) buildings on his Woburn estate (McCann 2004: 19–20) has parallels with this – and can almost certainly be attributed to a lordly initiative. Its construction is likely to have been arranged by the Enderby family, who acquired the main Stratton manor in the 1390s and came to dominate the village, both through their manorial possessions and their permanent residence there. A second, less well-preserved dovecot was present at the southern end of the excavations, presumably associated with the main Stratton manor. It was part of a relatively elaborate

Figure 11.1 (opposite page): Phased plan of all features

group of new buildings, including a large house built on masonry foundations.

The quantity of remains relating to habitation begins to diminish by the end of the medieval period, with the excavated area falling within an increasingly pastoral landscape. It is clear from documentary evidence that the township was still occupied, however, suggesting that its inhabitants were living beyond the bounds of the archaeological excavations. The two manors are likely to have become the prime settlement foci, with people retreating from the areas previously occupied since Anglo-Saxon times. An industrial focus (L84) was identified to the north of the excavated moat, where remains from a cobbler's workshop and various other industrial processes were identified; activity in this area is likely to have begun in the 15th century, but appears to have reached its peak around the transition from Period 7 to Period 8 in the 16th century.

The archaeological evidence offers little explanation for why the village came to be deserted, but documentary records make it clear that this can be attributed to the deliberate actions of its resident lords. The origins of the designed landscape of Stratton Park can probably be traced back to the Cotton family who, in the late 17th or early 18th century, set about remodelling Stratton into a classic estate landscape of country house and park, surrounded by discrete and enclosed tenant farms. The process would have been lengthy, involving as it did the buying-out of freehold and copyhold tenancies, but the 1801 census suggests that the number of tenant houses in the township had halved from the number recorded in the hearth tax of 1670 (see page 14). The park's creation is testament to the social and economic power that the resident lords of the manor had over Stratton.

Farming economy, diet and the surrounding environment

The people of Stratton – both the medieval village, and the agglomeration of individual farmsteads that existed here before the village proper came into being – were farmers. This is not to say that farming was their sole concern, but it was the economic basis of the settlement overall, and would have been the primary means of living for each individual family (with the possible exception of Stratton manor). An increase in specialisation is likely to have occurred as the progression from separate farms to a cohesive village structure provided new socio-economic opportunities, but farming would have remained the primary means by which the population was able to feed itself and generate sufficient surplus to engage in trade and commerce.

In contrast to the situation commonly observed across the region, the early Anglo-Saxon population at Stratton occupied a landscape that appears to have been devoid of any remnant settlement-related remains from the Roman period, or indeed from the Iron Age. This is reflected in the range of cereal crops grown by the early Anglo-Saxon farmers: no evidence was found of emmer or spelt, the staple wheat varieties of the Roman period and prehistory, whereas traces of these often continued into the Anglo-Saxon period on contemporary sites elsewhere (cf. pages 174–8). What, then, did this landscape look like to its first Anglo-Saxon occupants, and how did it influence the agricultural regimes that were adopted in the following centuries?

Woodland resources

It was traditionally believed that much of England reverted to woodland following the demise of Roman rule, though the frequent dearth of evidence for this from the results of archaeological excavation has been used to support the theory that livestock husbandry dominated early Anglo-Saxon farming (Banham and Faith 2014: 141–2). Grazing by both domesticated and wild animals, which tend to be equally at home in woodland and scrub as on grassland, may have been much more responsible than direct human activity for limiting the regrowth of woodland. Taking this as evidence for the dominance of livestock husbandry at Stratton in the early Anglo-Saxon period, however, would be unreliable, as there is no clear indication that Roman farming had been responsible for clearing this part of the landscape in the first place. A small number of tree-throws were recorded across the excavated areas, but there were no physical traces to indicate the former presence of extensive tree-cover that had been removed during the Roman period. This absence of woodland at the point when settlement was first established in the Anglo-Saxon period can, therefore, perhaps more plausibly be ascribed to the nature of the site's native vegetation.

The existence of a fundamentally open landscape at Stratton is supported by the plant and pollen remains recovered from Anglo-Saxon deposits, though these remains come from a relatively small number of samples, particularly for the early Anglo-Saxon period. Plant remains associated with cereal production and processing dominate the early Anglo-Saxon assemblages, from which only charred material was recovered. The ready availability of woodland resources in the wider area is attested by the identification of charcoal belonging to ash, blackthorn, dogwood, hazel, field maple, oak, spindle and the hawthorn group, as well as by the use of coppiced wood to make structures such as well linings or revetments. These may have come from local hedgerows or small copses, or been gathered

from areas of historic woodland that are known further afield to the north and west of Biggleswade (Chapter 9).

Pollen data for the middle Anglo-Saxon period offers a more reliable indicator for the general absence of woodland close to Stratton (cf. pages 172–3). Oak and hazel were dominant within the areas of woodland that did exist locally, but with arboreal pollen never accounting for more than 4% of all land pollen from the middle Anglo-Saxon samples, it is clear that woodland formed only a minor constituent of the surrounding landscape. In contrast, there is plentiful evidence for both grassland and cultivated ground in the immediate vicinity of the settlement. Despite the general lack of local woodland, it is clear that some existed locally enough for it to have been actively managed (assuming that the inhabitants of Stratton were the ones managing it): there is evidence for middle and late Anglo-Saxon coppicing (see page 169), and there are signs of pollarding in the later periods.

At no point in the settlement's lifespan of more than a millennium is there persuasive evidence for any significant change in the vegetational balance of the overall landscape. Chronological variations can be detected in the assemblages of plants remains, but it is unclear whether these reflect genuine changes, or just the relatively small size of the datasets involved. For example, the diversity of woodland species within the samples increased between the early and middle Anglo-Saxon periods, then decreased in the late Anglo-Saxon period before increasing again in the Middle Ages. However, these variations in the number of species recorded correspond broadly with the number and type of samples that were available to study: pollen data was only obtained from middle Anglo-Saxon deposits, while the other chronological peaks in species diversity can be linked to the recovery of waterlogged remains. The slight increase in diversity following the late Anglo-Saxon period may also be attributable in part to the expansion of the settlement, with plant remains recovered from parts of the site that had previously contained no features to sample.

The recovery of walnut charcoal from middle Anglo-Saxon deposits is an interesting footnote to the evidence for Stratton's arboreal composition (cf. pages 169–72). Finds of walnut in Anglo-Saxon deposits almost always occur at urban sites such as York (Hagen 2006: 60; Tomlinson and Hall 1996); the walnut charcoal at Stratton may simply have come from a piece of imported wood, but it does raise the possibility that walnut trees grew at Stratton in the middle Anglo-Saxon period. Walnut charcoal was also recovered from medieval deposits; this may similarly have derived from imported material, but could indicate the long-lasting presence of a clump of walnut trees within part of the site.

Farming economy and land use

While it seems clear that the landscape at Stratton was devoid of substantial woodland, evidence is less readily forthcoming about exactly what elements did occur there at any given time, and their distribution. A mixed arable and pastoral farming regime is likely to have endured throughout the settlement's lifespan, but this balance would have varied through the centuries. The location of pasture and arable fields may also have varied, either on a short-term cycle or as part of a longer pattern; hay meadows and perhaps even water meadows can also be detected as part of the medieval and post-medieval village, though the data is lacking to determine whether such elements of the landscape were present during earlier periods.

Arable cultivation

Chapter 9 summarises the range of cereal crops on which the settlement relied (with more detail in Digital Appendix A8) – primarily free-threshing bread wheat, hulled barley and oat, with rivet wheat and rye introduced probably in the late Anglo-Saxon period. This is confirmed for the Middle Ages by Stratton's 1297 roll of assess, published in translation by Gaydon (1959): this lists crops, stock and other moveable goods that were subject to taxation. Wheat predominates, followed by drage (an oats/rye mixture) and small amounts of rye. Barley is notably absent from the roll, however, despite its regular appearance in the archaeobotanical assemblages obtained from all periods. This might be because barley was either entirely a subsistence crop in the Middle Ages, or was not declared for taxation purposes: the amounts listed on the roll are implausibly low, perhaps because it only lists the surplus remaining after what was required for subsistence had been deducted (Willard 1934: 84–5), though Gaydon (1959) theorises that tax evasion is a more likely explanation.

A more plausible explanation for barley's absence from the roll is that it was brought in from outside the settlement rather than grown there. The main crops listed in Biggleswade's roll were rye, drage and barley, with no mention of wheat: this may be a sign that there was a degree of specialisation in the two townships' cereal production, with Stratton importing barley from Biggleswade in exchange for wheat. If this was the case, then for how long had this arrangement applied – did the villagers of Stratton grow their own barley in the Anglo-Saxon period, or did they always rely on trade?

Much of the overall archaeobotanical evidence for cereal production within the excavated areas is circumstantial, not just for barley. Although cereal remains dominate the charred plant assemblages, the assemblages are mostly semi-cleaned, with significant quantities of chaff only present in a small number of them. The

consistent presence of charred grains in soil samples from all periods provides evidence of what was being consumed, but without constituting direct evidence for what was being grown. This is in common with the vast majority of Anglo-Saxon settlements that have been excavated across the country (McKerracher 2018: 85): the initial processing would have taken place out in the fields, away from any likely scenario in which the remains might become charred and thus be preserved in the archaeological record. Logic dictates that not all of these sites can have been exclusively importing grain, and similarly, it is probable that the cereals represented in the archaeobotanical assemblages from Stratton were grown by the inhabitants – but the possibility that barley was only ever imported, at least by the medieval villagers, strikes a note of caution against assuming too much about the other cereals.

Implements associated with crop cultivation or initial grain processing were largely or entirely absent from the assemblages prior to the late medieval period. This situation is overwhelmingly the case on medieval and in particular Anglo-Saxon excavations across the country: wood is likely to have formed the major component in these tools, and any iron component would have been looked after and recycled rather than casually discarded, due to its high production cost (McKerracher 2018: 31). Evidence for late-stage processing was more forthcoming, in the form of fragments of quern stones, though spatial analysis of these and the archaeobotanical remains has failed to identify any specialist processing areas within the settlement. The milling of grain was probably a domestic activity in the Anglo-Saxon period, as evidenced by the recovered fragments of lava quern, but the grain is more likely to have been sent to a nearby mill for processing in the Middle Ages – fragments of Millstone Grit millstone recovered from Period 6 and 7 deposits may have derived from such an operation. Stratton manor is recorded as having its own water mill in 1436, though no other mention is made of it; a mill at Biggleswade is recorded in Domesday Book, however, and with the River Ivel only 1.5km to the west, the probability of a mill within easy reach throughout the Middle Ages is high.

On the assumption that people did grow cereals at Stratton throughout the settlement's lifespan, the question remains of exactly where this took place. A drawback of developer-funded archaeology is that excavation inevitably focuses on settlement foci rather than the surrounding countryside: field systems associated with Anglo-Saxon and medieval settlements are often detected only through earthwork surveys, which were not applicable in the area around Stratton.

Extensive field and/or enclosure systems were present across the whole excavated area at one time or another, but the majority of these are morphologically more likely to have been associated with controlling livestock than growing crops (Pryor 2006: 100–5). The principal exception to this is middle Anglo-Saxon field system L17 (Figure 3.20), whose long, thin strips seem more suited to arable cultivation than pastoralism. The extent of these fields is unclear, as the ditches defining them and their subdivisions survived in fragmentary fashion, but if their easternmost limit can be approximated with that of the fields visible in Phase 6a (Figure 5.1), then their width comes within a few yards of being a furlong. Wheel ruts identified along the edge of these fields further suggest an arable function, with carts used to transport the harvested crops to a processing area. It may also be more than a coincidence that a number of sunken structures resembling mini-SFBs were located nearby in area L31, with further examples to the south in L37 (see pages 125–8): their function is unknown, but one possibility is that they served as storage sheds, perhaps resembling the prehistoric four-post structures that are often interpreted as granaries or other types of agricultural store.

The layout of fields L17 appears not to have survived intact for long, although some of the boundaries established at this time were used well into the Middle Ages. Whether the later fields had an arable or pastoral function is less clear: they may have been part of a late Anglo-Saxon open-field arrangement in Period 5, but the increased complexity of the ditches' layout in Period 6 is more suggestive of a system of livestock management. Before all these adaptations of the L17 field boundaries took place, however, and not long after the original fields were established, the whole area was remodelled by the curvilinear boundaries of Phase 5a (Figure 4.1). This episode in the settlement's history is poorly understood, but the relative lack of complexity in the ditched layout of this new arrangement is perhaps more indicative of an arable than a pastoral use of the land.

Were there any periods in which the pastoral-arable balance of the settlement's economy tilted entirely in favour of the former? A mixed economy is still the most plausible for all periods (with the possible exception of Period 3, for which there is little evidence either way), but it remains a possibility that the excavated area was primarily used for pasture, with crops grown and processed in a different part of the settlement. This may explain the almost complete lack of evidence for ridge and furrow earthworks: a few possible remnants were tentatively identified within the Phase 6 area L48, but their ubiquity across much of the region makes their absence here stand out. An alternative explanation may be that the community (in the Anglo-Saxon period at least) lacked the financial resources to acquire a mouldboard plough, which was primarily responsible

for the formation of ridge and furrow patterns: these were much more expensive than the lighter ard, which may have been adequate anyway for the light soils at Stratton (Banham and Faith 2014: 50).

In view of the difficulty in identifying areas of arable cultivation at Stratton, identifying evidence of crop rotation is equally challenging, but the recovery of peas and beans in sufficient quantities to suggest their deliberate cultivation alongside cereal crops raises the possibility. Whether Anglo-Saxon farmers were aware of their ability to improve soil fertility is unknown, but it is plausible that such an observational deduction was made. Their presence is common on other contemporary sites across the country (see pages 174–8): as well as being consumed in their own right as vegetables, they were also mixed in with staple foods such as bread (e.g. Rubel 2006). Place-names and historic records from the Anglo-Saxon period suggest that large-scale cultivation of field/broad beans and garden peas was taking place (e.g. Hagen 2006: 46–8), while Stratton's roll of assess demonstrates that peas were widely grown across all three of Biggleswade's townships in the Middle Ages (Gaydon 1959). The consistent low-level recovery of small vetches, coupled with oat, further suggests that fodder crops may have been cultivated for animal feed as part of a field-rotation system (Campbell 2010: 497–8). There are no documentary records to indicate that vetches were cultivated in England until early in the 13th century (Campbell 1988), but their regular recovery on Anglo-Saxon sites suggests an earlier origin (Currie 1988).

Pastoralism

Just as the discovery of some charred grains on an archaeological site does not provide incontrovertible evidence of arable cultivation, so the presence of a few sheep tibiae does not attest to a thriving wool industry. The faunal assemblage described in Chapter 10 primarily relates to the processing of animal carcasses and the consumption of meat: it can only offer a relative and indicative guide to what animals were kept on site, especially when there is evidence that dressed carcasses were being imported (albeit perhaps only from another part of the village) in the later periods. Even comparing the assemblages and trends in the relative proportion of species' remains to regional patterns in the Anglo-Saxon and medieval periods is complex, since the incomplete and fragmentary nature of the evidence means that there is no consensus as to which animals were generally the most important economically in any given period (McKerracher 2018: 49–51).

Unlike the archaeobotanical evidence, however, the faunal evidence is supported by the physical remains of ditched boundaries. Ditches would have required substantial effort to dig and maintain, and while in some cases they may have additionally served to help with drainage and perhaps (in the case of the medieval moat) defence, their primary function would mostly have been to help control the movement of animals. They were not necessarily dug in order to facilitate the pastoral side of the economy, however: the introduction at Stratton of an extensive network of fields and enclosures in the 7th century (L6, Phase 4a; Figure 3.4) may reflect the requirements of a community increasing its arable output and needing to keep its existing livestock off the new crops. Some of the arrangements of ditches were more firmly characteristic of measures taken to control livestock movements, however, such as the late Anglo-Saxon ditches L41 (Figure 4.9) which look as though they were designed to funnel animals from the south-west into a corner with ditches L39 (cf. Pryor 2006: 100–5).

The presence of livestock within the excavated areas is also indicated by the waterlogged plant remains recovered from water-pits of all periods across the site (see pages 172–4). Weeds/wild plants such as henbane, common nettle, elder and hemlock are all typical of nutrient-rich and nitrogen-rich soils, especially those enriched by manure (Atkinson and Atkinson 2002: 897; Stace 2010: 285, 784; Taylor 2009: 1439). Such plants are not conclusive proof that animals grazed nearby, but the complementary recovery of small numbers of dung beetles does strengthen the case for the presence of large herbivores around the water-pits. Pollen analysis from middle Anglo-Saxon water-pit deposits also suggests that areas of heavily grazed, short-turf grassland were present nearby. In contrast, plants that thrive in an absence of grazing were recovered from post-medieval pit G5901 (see page 174) – yet this is still evidence that livestock formed an important part of the economy, since these plants are characteristic of grassland that has been allowed to mature fully before being cut for hay. This would have been an important resource for overwintering animals, and hay is noted on Stratton's medieval roll of assess (Gaydon 1959): it occurs in isolation on the holding of Margaret Rikespaud, although hay and/or forage are also recorded on some of the larger holdings.

The importance of animals to the people's diet is discussed below, but their overall place within the farming economy needs to be considered. Cattle and sheep are overwhelmingly the dominant species recovered numerically at Stratton (osteological analysis is rarely able to distinguish between sheep and goats, but positive identifications of either usually relate to sheep (McKerracher 2018: 52), and these are assumed to account for the vast majority of the sheep/goat bones at Stratton). Sheep tend to dominate the faunal record across much of Anglo-Saxon and medieval

England (Hamerow 2012: 156–9), but Stratton appears to constitute one of the local variations to this pattern. While it is true that only a small percentage of the many thousands of animals likely to have been kept at Stratton over the centuries are represented in the faunal assemblage, the numerical dominance of cattle bones in all periods from middle Anglo-Saxon to late medieval, when combined with the greater size of these animals, strongly suggests that cattle played a greater part in the settlement's economy. A similar prevalence of cattle has been noted on other Anglo-Saxon and Saxo-Norman sites in Bedfordshire (Maltby 2004; 2009; 2012).

Fewer than 20% of the cattle mandible fragments provide dating evidence, but the available data indicate a gradual shift towards older animals. Of the 40 recovered from Anglo-Saxon deposits (Periods 3–5), 28% belonged to cattle aged between 6–36 months: these would have been slaughtered for meat, whereas the remainder are from older animals which may have provided calves and milk as well as being used for traction. These secondary products appear to have become more important in the medieval period (Periods 6–7), albeit with only 25 mandibles on which to base this conclusion. The number of mature sheep (over 4 years old) also increased in the medieval assemblages, although this may be a reflection of younger animals tending to be led to urban markets for slaughter, rather than evidence for the increased importance of wool in line with national trends (see pages 190–2). This does also raise the possibility that the lower percentage of young cattle from later periods could be because some were sent away to urban butchers rather than being slaughtered on site, but there is too little evidence to support this idea one way or the other.

Interpretation of the general dearth of skeletons or associated bone groups (ABGs) of cattle or sheep skeletons is similarly complicated by the possibility that animals were sent away for slaughter. Indeed, the suggestion that partially processed carcasses were imported in the later periods of the settlement may in fact reflect the return to site of animals that had merely been sent to a specialist butcher, operating perhaps only as far away as Biggleswade. Occasional discoveries such as the group of six butchered sheep skulls in pit G5985 (L74, Period 7) and the seven or more cattle skulls and horn cores deposited in pit G1232 (L52, Period 6) do at least offer proof that some carcasses were processed on site, but there is little evidence apart from these to suggest that it was being done systematically. Butchery marks themselves were not recorded systematically during analysis, but they can be observed quite frequently on the bones: these are likely to have been made during the processing of carcasses at a domestic level, either by a member of the household, or perhaps by a specialist within the wider settlement. The cattle ABGs in pit G1232 demonstrate that the whole carcass was processed: aside from what animals could contribute during life and their value as meat once dead, there were very few parts of the animal that could not be put to use in one context or another, particularly in the Anglo-Saxon period when domestic-level craft activity was more prominent.

The presence of very young piglets in most periods at Stratton is a strong indicator that pigs were being kept and reared there. Pigs offer little in the way of secondary products, unlike sheep and cattle, and tend to occur in largest numbers on higher-status sites. Excluding ABGs, however, they account for 16% of all identified mammal elements at Stratton with relatively little variation across the periods (Table 10.2), demonstrating that they were still an important part of the farming economy despite the generally low status of the settlement. Percentages of pigs in archaeological assemblages in the Midlands tend to decrease during the medieval period in relation to sheep (Albarella 2006), but remain broadly static at Stratton if the single large collection from middle Anglo-Saxon well G5313 is discounted. This may be a reflection of the higher average status of the excavated remains, with more of them in the later periods relating directly to Stratton manor. At least 40% of the pigs from the late Anglo-Saxon period onward that can be aged were between 18 and 24 months old at their time of death; this may largely correspond with culling in the autumn and winter after they had been fattened through pannaging.

Dogs and horses are likely to have been kept primarily as working animals, the former for herding animals and maybe protecting the smaller livestock against predators, the latter for ploughing and drawings carts. Both species may also have had non-economic functions, however, so their relative importance to the farming economy is difficult to gauge: some dogs may have been pets or domestic guard dogs, while the recovery of horse-riding paraphernalia shows that some horses were used for transport, perhaps exclusively so by the wealthier occupants such as those at the manor. Unsurprisingly, almost all the horses represented in the assemblage were more than four years old – probably much older in many cases – and most are likely to have either died of old age or been put down after they had finished their working lives. A small percentage of the bones do, however, retain butchery marks, suggesting that some horses entered the food chain: they may therefore have been a vital source of meat to humans during lean periods, though there is also a chance that elderly horses whose working life was over were more habitually butchered for meat, if only as dogfood. ABGs account for a much higher percentage of dog and horse bones than they do for cattle and sheep, indicating

that even if their meat was at least periodically a useful resource, the remainder of their bodies held little value.

Diet

Even though animals are believed to have been more highly valued in Anglo-Saxon times than crops, as suggested by the significantly greater attention paid to them in contemporary legislation (Banham and Faith 2014: 75), this was primarily the result of their all-round usefulness. In terms of food, late Anglo-Saxon written records indicate that bread was the staple dietary element (Hull and O'Connell 2011: 668). Meat – from both domesticated and wild animals – and dairy products did feature as an important aspect of people's diet, but for most people a mixture of cultivated crops and wild fruits and nuts is likely to have formed the mainstay of their nutritional intake. Not all of these can be readily identified from the archaeological record and in the absence of features such as cesspits, which offer potential for the survival of a wide range of foodstuffs, plant products can usually be identified only if they have accidentally become charred or are found in a feature which is deep enough for waterlogged conditions to occur. Animal bones are usually recovered more widely, but a preservation bias in favour of large, robust bones discriminates against the recognition of smaller animals, and the very smallest tend only to be identified by sieving soil samples. Isotopic analysis is now capable of offering an additional means of insight into people's diet (Hull and O'Connell 2011), but this is dependent on recovering significant quantities of human skeletal remains, and lay beyond the scope of the Stratton analysis programme anyway. There is still much that can be deduced about what the people of Stratton ate, but as ever, a range of caveats apply.

The remarkably low level of variation in the range of crops and other plants that can be detected at Stratton throughout the settlement's lifespan suggests that the population's basic vegetarian diet remained largely unchanged. The range of cultivated crops is discussed above (see pages 174–8), but apart from cereals there is little evidence of crops that were grown deliberately. Peas and beans feature in the assemblage, as they do from many Anglo-Saxon and medieval site, but it is unknown whether these were grown for human consumption or as animal fodder.

As well as using the cereals to make bread, it is likely that some of the crop – primarily barley, but not exclusively so – was used to produce ale. No persuasive evidence was found on site for malting, however: germinated grains were commonly recovered in small quantities from all periods, but only a medieval hearth in area L50 (Period 6) produced large numbers of germinated barley, as well as some oat grains that had also sprouted (Digital Appendix A8). Preservation is inadequate to determine whether most of the grains from this deposit have germinated, however, and it certainly cannot be said that the grains were germinated deliberately; malting waste is also more likely to be found in association with a purpose-made kiln rather than a domestic hearth.

Historical records, and archaeological data from sites with conducive conditions of preservation, illustrate that the cereal element of Anglo-Saxon and medieval non-meat diets was supplemented by a wide range of vegetables, nuts and fruits (Hull and O'Connell 2011: 668–9). As conditions at Stratton were not conducive to preservation, there is very little evidence for gathered foodstuffs. Hazelnuts are thinly represented in all periods, but remains of other wild food sources are restricted essentially to sloe stones from medieval deposits and blackberries from post-medieval ones. The medieval villagers do also seem to have had a taste for walnuts; this may even stem from as far back as the middle Anglo-Saxon period, with the remarkable find of 28 charred fragments of walnut burr wood in hearth G3632 (Phase 4, L15; see pages 169–70).

For their meat diet, the residents of Stratton relied heavily on beef from at least the middle Anglo-Saxon period until the settlement's ultimate demise. Although a straightforward correlation between the number of cattle bones recovered and the amount of meat eaten should not be assumed – cattle may well have been valued primarily for their secondary products – their numerical superiority over all other species at Stratton in all but the early Anglo-Saxon period strongly suggests that beef was the prevalent meat. Butchery marks were not systematically recorded during analysis, but their presence on a significant number of the bones indicates that at least some of their meat entered the food chain. This was primarily from adult animals: a few mandibles from late medieval and post-medieval deposits (Periods 7–8) are likely to be from young calves that were culled for veal, but there is no evidence that veal was extensively consumed in any period.

The main other domesticated animals utilised for their meat were sheep and pigs, in common with most contemporary sites in England. Their relative contribution to the people's diet seems to have remained relatively static through time (Table 10.1), although the numerical dominance of sheep bones in early Anglo-Saxon deposits may be a genuine reflection of the greater importance of mutton, rather than a result of the relatively small size of the assemblage. An increase in the number of pig bones in the late Anglo-Saxon Phase 5a deposits is primarily due to the assemblage from well G5313, and is more likely to reflect the consumption of a single household rather than the population as a whole. The bones may even

have accumulated in the silted-up well during Phase 5b rather than Phase 5a: pigs tend to be more common on higher-status sites of this period (Albarella and Davis 1996), and the adjacent longhouse G5108 in area L38 does appear to have been a higher-status building than its contemporaries.

Very few other mammals appear to have featured in the population's diet. Horses are unlikely to have done so regularly: they only account for 6% of the overall faunal assemblage (Table 10.1), and would primarily have been used for traction or, in the medieval period at least, as riding animals. Necessity during times of hardship may have caused some of them to be eaten, however, particularly if the prospect of keeping them fed over winter was already unfeasible: some of the bones do display butchery marks, although the majority of these are perhaps more likely to have been caused during the production of dogfood. Dogs themselves show no signs that their carcasses were ever processed. Bones of deer, hare and rabbit were also recovered, but in very small numbers (and some perhaps intrusively, at least in the case of rabbit bones from Anglo-Saxon deposits), and it is unlikely that wild animals formed a significant part of the meat supply. Even the houses whose occupants appear to have been higher in status than others in the village, such as those of longhouse G5108, appear rarely to have consumed the sort of gamebirds or venison that are often associated with higher-status living. The one exception comes from the large number of pigeon bones found in association with late medieval dovecot G3500, but both the meat and eggs are likely to have supplied the manor rather appearing on the tables of the houses within the excavated area.

Products such as eggs and milk would undoubtedly have formed an important part of people's diet, but the archaeological record rarely provides direct evidence for their consumption, so it must be inferred only from the presence of cattle, sheep/goat and poultry bones. Domestic fowl and geese were present in low numbers in all periods (Table 10.13), although the latter was scarcely represented in the late Anglo-Saxon period. Both would have been kept for their eggs as well as their meat; the presence of young fowl in all periods and goslings in the late medieval / post-medieval periods suggests that they were being bred on site. Ducks, however, are curiously under-represented, with none identified from Anglo-Saxon deposits.

Despite the relative proximity of the River Ivel, fish appear to have formed an almost negligible dietary component in the Anglo-Saxon period, with only slightly better representation later. The successful recovery through sieving of bones from small mammals and amphibians does suggest that the paucity of recovered fish bones is reflective of the relative dietary insignificance of fish, although this does not take into account the way that the bones would have entered the archaeological record. The sampled ditches, pits and wells in which the remains were found may well have been favoured environments for small mammals and amphibians when they were alive, whereas the fish remains would only have entered these deposits posthumously: the relatively large number of small mammal and amphibian bones may, therefore, be artificially high in comparison with the number of fish bones, which could mean that the dietary importance of fish is under-represented.

Manufacturing, consumption and exchange

A large assemblage of artefacts was recovered from the excavations at Stratton, though in some respects not as large as might have been expected from the extent of the excavations and the longevity and density of the settlement's occupation. This is partly due to the organic materials that are likely to have been used for many of the everyday objects that the inhabitants owned, which mostly did not survive, but may also be a reflection of the people's relative lack of prosperity and ability to purchase goods, or create their own.

As a dependent township of Biggleswade from the late Anglo-Saxon period, there is nothing to suggest that Stratton was fundamentally anything other than a small, rural, low-status community. There is nevertheless both documentary and archaeological evidence for at least the periodic presence of wealthier residents, and it is clear that links existed with areas beyond Stratton's immediate locality throughout the settlement's lifespan. The extent to which these links were exploited for trade appears to have varied, with the quantity of items procured from further afield generally increasing over time, although this has to be tempered as ever by the partial nature of the archaeological record. The acquisition of goods from further afield should also not be assumed to correspond entirely with the ability to do so: there are many reasons why goods that were produced locally may have been preferred, while the presence of imported goods may equally reflect more on the overall level of trade taking place across the region than a particular settlement's ability to acquire specific items from distant places.

It is clear from the artefact assemblages that they incorporate a mixture of items that were created locally and others that were traded from further afield. Only towards the end of the settlement's lifespan is there any evidence that local manufacture went beyond domestic-level production – although it should be remembered that part of the medieval village remains unexcavated, where the remains of any number of industrial workshops might lie. Craft activity prior

to this appears to have taken place only at household level, most likely carried out on either an *ad hoc* basis when required or as a seasonal activity.

Exchange and consumption of traded goods

The pottery assemblage is broadly representative of the overall collection of artefacts that were excavated at Stratton, in terms of the changing balance of local products and imports. It retained a primarily utilitarian character until a slightly greater percentage of fine wares began to appear in the medieval assemblage; jugs also became common at this point, adding to the previous range of mostly jars and bowls. The increase in fine wares is likely to represent the greater percentage representation of Stratton manor within the overall settlement's medieval ceramic assemblage, though problems with high residuality complicate the assemblage's spatial and chronological analysis.

The total excavated pottery assemblage amounts to 16,410 sherds (184.9kg), 15,709 of which are early Anglo-Saxon to post-medieval in date. Table 8.1 shows the volumes of pottery present by date (both the ceramic date and the date of the features from which the sherds were recovered). Wares produced in the late Anglo-Saxon and medieval periods account for nearly 70% of the sherds, but the distribution of late Anglo-Saxon wares illustrates the problem with trying to tie individual ceramic assemblages to specific contemporary households: more than 60% of the sherds were recovered from features belonging to a later period. The pottery assemblage can, however, demonstrate trading links and the volume of its consumption by the settlement as a whole.

Most of the pottery dating to the early and/or middle Anglo-Saxon periods is likely to have been produced locally: the fabric types are commonly found on contemporary sites across Bedfordshire, and petrographic examination indicates that local clays would have been able to produce such fabrics. No kilns have been identified at Stratton, but the surface geological deposits in the excavated areas are gravel: potters are more likely to have set up their kilns near their source material, so there is no way to tell whether these pots were made by the people living at Stratton and travelling a short distance to their kiln, or were traded with a specialist potter living in a nearby settlement.

Evidence of traded pottery is clear by the middle Anglo-Saxon period: 539 sherds (*c.* 12kg) of Maxey-type wares from the Peterborough area were recovered, which at the time of writing represents the largest collection of this ware within Bedfordshire. Maxey-type and Ipswich wares were the two main regional types of pottery in the middle Anglo-Saxon period; the recovery of just 18 sherds of Ipswich ware is therefore all the more striking in contrast. In addition, granitic pottery from the Charnwood Forest area of Leicestershire is entirely absent from the assemblage, despite occurring in small quantities across Bedfordshire at sites such as Tempsford (Blinkhorn 2005: 53), Harrold (Wells 2012: 56) and the Biddenham Loop (Wells 2016). This may indicate a direct trading link between Stratton and the purveyors of Maxey-type wares, possibly as a result of a preference for that particular type of pottery, or perhaps just as a corollary to existing trade arrangements in other goods. The people living at Stratton were perhaps becoming more selective or ambitious in their choice of pottery by this stage: the presence of decorated and more elaborate vessels in finer fabrics, with no signs of sooting, suggests that these were being reserved for exclusive use as tableware.

The presence of other types of contemporary imported goods reinforces the impression that trade with production centres beyond the immediate vicinity of Stratton began to increase in the middle Anglo-Saxon period. Sherds from at least two globular glass beakers – one of dark olive-green glass with opaque yellow trails (OA61–62), the other of opaque 'black' glass with unmarvered reticella trails of yellow and 'white' (OA60) – were recovered from Phase 4a features in the northern part of the settlement. These are the sort of items that might have been bought at a local market, although they tend to be recovered from archaeological sites clustered around the English and continental coasts of the North Sea and the English Channel, perhaps indicating that someone at Stratton had direct access to long-distance trade routes. Their presence at Stratton also indicates that some occupants at least had started to acquire a degree of disposable wealth. Whether the transaction was monetary or used a system of bartering is unknown, but the recovery of a coin of Egberht Praen (AD 796–98) demonstrates some level of engagement in monetary trade.

The preference of lava over Millstone Grit for use as quern stones also suggests a degree of surplus wealth and slightly higher status (Wastling 2009a: 246). The fact that the stone was imported from a great distance presumably made it more expensive, although in the early and middle Anglo-Saxon periods at least, the possibility that fragments of lava querns were salvaged from abandoned Romano-British settlements cannot be discounted – either by the people living at Stratton or by the people trading in the material. A similar origin might explain the presence of items such as the whetstone of Kentish Ragstone found in early Anglo-Saxon SFB G3174: trade in these is thought to have been more common in the Roman period than in later times,

with the use of this type of stone appearing to fall out of fashion (Moore 1978: 69, 72).

Stratton underwent a period of upheaval during Phase 5a, as a new but relatively short-lived series of curved boundary ditches cut across the former rectilinear landscape (Figure 4.1). The settlement also began to expand around this time, which is reflected in the pottery assemblage: almost three times as many sherds of late Anglo-Saxon pottery were found as of those dating to the middle Anglo-Saxon period, although most of these were recovered from later deposits (Table 8.1). This increase in the acquisition of pottery vessels seems to have grown faster than the rate at which the settlement expanded: this could indicate a period of relative prosperity in the late Anglo-Saxon period at Stratton, although it could also reflect the greater prominence of the St Neots pottery industry and the greater ease with which people from nearby settlements were able to avail themselves of its wares. None of the vessels shows any signs of repair, further suggesting that it was relatively easy to procure new vessels rather than having to make existing ones last.

With the demise of the Maxey-type pottery industries and the consequent cessation of trading links with pottery manufacturers from that area, the population at Stratton in the late Anglo-Saxon period became much more reliant on the St Neots pottery industry. Regional imports became much less significant to the settlement's pottery supply: small quantities of Stamford and Thetford-type wares were present, but the newly developed St Neots-type wares account for 98% of the late Anglo-Saxon assemblage. Mellor (1994: 60) has suggested that the industry's aggressive marketing policy ensured that this became the dominant ceramic type over an extensive area, so it is unsurprising that settlements in close proximity to where the pottery was manufactured would have relied heavily on the industry's products.

St Neots-type wares were primarily utilitarian, and 13% of the vessels retain evidence of sooting or other indications of use. In contrast, only one sherd of Thetford-type ware is sooted, and none of the Stamford wares, suggesting that these regional imports were specifically targeted for their use as tableware, albeit in small quantities.

There was more evidence of long-distance trade from the other artefact assemblages, increasing from what was evident in the early and middle Anglo-Saxon periods. Lava continued to be the material of choice for quern stones, suggesting continuity in trading patterns from the previous centuries. This does assume that the lava querns were new imports: the lack of typological dating for such querns makes it impossible to rule out the possibility that they were recycled Roman querns from more local sources, as may have been the case with the Old Red Sandstone saddle querns and a bun-shaped Hertfordshire Puddingstone quern that were also recovered from Period 5 deposits.

The occurrence in westerly East Anglia in the late Anglo-Saxon period of a whetstone made from Norwegian Ragstone is noteworthy. Early examples of this imported stone have been linked to Scandinavian settlement or close trade contacts (Wastling 2009b: 237): this could be evidence that new trading links were opening up with the introduction of the Danelaw, although it may simply indicate continued use of the existing trading links that resulted in the presence of globular glass beakers at middle Anglo-Saxon Stratton.

Further evidence of trading links comes from artefacts such as antler-handled comb OA345, whose quality suggests that they derived from specialist centres elsewhere rather than being manufactured domestically. The presence of copper alloy dress fittings without any contemporary evidence for casting also suggests that the items were purchased elsewhere, and points to the existence of individuals at Stratton with sufficient wealth to acquire objects that were in most cases non-essential items. Items such as the intricate two-component copper alloy plating that adorns iron strap distributor OA198 were also undoubtedly made by specialist craftsmen, as were four white-metal-plated prick spurs (OA212 and OA213–214), tin-plated iron bridle boss OA199 and stirrup terminal OA211. Much of the wealth of late Anglo-Saxon England was generated in the Danelaw and particularly the Eastern Danelaw (Hart 1992: 103–7, 145–6), and the apparent arrival of a horse-riding elite at Stratton in the late Anglo-Saxon period suggests that the settlement would have been able to take advantage of this new economic landscape. As in the middle Anglo-Saxon period, however, the primary mechanism of trade is likely to have remained a system of bartering goods rather than relying on monetary transactions: only one coin found in the excavations can be dated to the 9th/10th century.

As the St Neots pottery industry declined and Stratton grew as a village, there were further changes in its trading links and appetite for material goods. Despite the expansion of the settlement, its consumption of pottery vessels appears to have increased surprisingly little from the late Anglo-Saxon period – although there remains the possibility that some of the allegedly residual St Neots-type ware recovered from medieval deposits may in fact have been contemporary with the early part of Period 6, since dating these fabrics closely is difficult, and they are known from other sites in Bedfordshire to have still been present in large numbers into the 13th century. The relatively low level

of pottery consumption in this period may, however, be genuine: the range of other medieval artefacts is also more limited than one might expect for the number of buildings identified, and certainly gives no impression of sumptuous living among the population as a whole.

The medieval pottery assemblage from the 12th to 14th centuries is typical of what might be expected from a rural settlement of modest status, with most of the pottery obtained from local potters and markets as required. Local manufacture is believed to account for 77% of the assemblage, though this includes the large number of Hertfordshire-type grey wares and Ely-type wares. While these two industries were based in the St Albans and Ely areas respectively, and the presence of their vessels at Stratton may be an indicator of regional trade routes, it is suspected that more local production centres existed which are yet to be identified – especially as Hertfordshire-type grey wares also occur commonly on other sites in south and east Bedfordshire such as Chalgrave (Brine 1988), Tempsford (Blinkhorn 2005) and Grove Priory, near Leighton Buzzard (Slowikowski 2013). Other wares from sites known to have been manufacturing pottery locally include those from Harrold, Bedfordshire (Hall 1972) and from Olney-Hyde (Mynard 1984) and Yardley Hastings (Brown 1993/94) on the Bedfordshire border with Buckinghamshire and Northamptonshire.

With the St Neots industry no longer dominating the local market, a greater range of vessels from further afield was once again being acquired. Products of the Brill/Boarstall industry in Buckinghamshire are dominant, with smaller quantities from Potterspury and Lyveden/Stanion in Northamptonshire, but small numbers of sherds also attest to the existence of trading links with Essex, Norfolk, Lincolnshire and North Yorkshire. A greater range of decorated and more elaborate vessels was also recovered than from previous phases of the site, many occurring in finer fabrics; this is perhaps a reflection of the increasing significance of Stratton manor to the composition of the assemblage, where tableware is more likely to have been required on a regular basis. The overall assemblage was still primarily utilitarian, however, with sooting evident in some form on 74% of the vessels.

Greater and more lavish consumption at the manor may also be responsible for some of the more expensive traded items such as a 14th-century copper alloy cauldron or skillet (OA69) and a similarly dated fragment of copper alloy plate (OA79). The presence of a spur, stirrup terminals and spur buckles indicates that at least one person could afford the expense of horse-riding, although this may have been someone living at Stratton slightly before the start of Period 6. Aside from the expense of feeding a horse and paying for the associated accoutrements, the initial purchase price would have equated to 6–12 months' wages for a skilled London craftsman (Clark 1995: 8–9), and no-one outside the manorial household at Stratton is likely to have had such wealth. An item even more indicative of wealth and nobility is the medieval helmet found in an unphased pit, which is either an early form of bascinet dating to the early 14th century, or a simple sallet 'skull cap' of the second half of the 15th century (see pages 162–4). Its owner is likely to have been alive a century or two later than the man whose riding equipment was found, illustrating that some degree of wealth and status was present at Stratton throughout the medieval period; the military and administrative career of John de Stratton (see page 9) make him a plausible candidate as the helmet's owner.

The medieval assemblage includes further artefacts that demonstrate the acquisition of luxury items, mostly in the form of tools and dress accessories, but the number of these is small when one considers the general increase in material consumption by rural communities in the late 12th and 13th centuries, as a wider range of goods became available to them (Hinton 1993: 150). The greater opportunities for trade meant that monetary transactions had to become a way of life for a larger number of people, as bartering would not have sufficed for all the goods that were desired (Hinton 1993: 143–4). The relatively low number of medieval coins recovered from Stratton is perhaps a further indication that with the exception of the manorial household, the villagers at Stratton in the 12th to 14h century were less able to procure traded goods than might have been expected of such a settlement.

One item recovered from Stratton with particular relevance to monetary transactions is the portion of an equal-armed balance (OA182), found near building G544 (Figure 5.9). Forged coins and fraudulent weights and measures are thought to have been rife in medieval times (Salzman 1926: 241); the presence of this balance suggests that the residents of G544 not only engaged in trade, but also took the precaution of checking the quality of the merchandise or coins being exchanged. The precise nature of building G544 is uncertain, but the remains of smithing and crop-processing were found nearby – this was perhaps the centre of the village's commercial and industrial activity, especially with the building lying only a short distance from the main road through the village (Figure 5.4: L55). It may be more than coincidental that one of only two contemporary coins recovered from Period 6 deposits (an Edward III farthing dating to 1344–51) came from relatively nearby.

The assemblages of 14th–16th-century artefacts show a slightly greater reliance on traded goods compared to

those from Period 6, but with no significant increase, and a decrease in the overall number of items recovered reflects the beginning of the settlement's gradual demise. Different trading connections are evident, with late medieval reduced wares replaced the Hertfordshire-type grey wares and Ely-type wares as the main type of locally produced pottery, accounting for 74% of the late medieval assemblage. These wares dominated the local pottery industry from the mid-14th to 16th century (Slowikowski 2011), and several production sites are known – Great Brickhill (Buckinghamshire), Higham Ferrers (Northamptonshire) and Everton, Flitwick, Riseley, and Heath and Reach in Bedfordshire. Petrographic analysis suggests Everton, Great Brickhill and Flitwick as possible sources for the material from Stratton (Quinn 2010a), with the proximity of the Everton kiln, only 7km north of Stratton, suggesting this as the most likely of the three.

The remainder of the pottery assemblage mostly comprises oxidised wares that resemble the products of pottery industries in Glapthorn and Potterspury, at opposite ends of Northamptonshire (Johnston *et al.* 1997; Paul Blinkhorn pers. comm.). A small volume of pottery came from the kilns at Brill or Boarstall in Buckinghamshire, and a stoneware jug that had been imported from Raeren in Belgium also features in the late medieval assemblage. Traded pottery from production sites to the east of Stratton rarely formed a significant part of the overall assemblage from any period at Stratton – only the earlier medieval Ely-type wares did so, which may have come from kilns relatively close to Stratton anyway – but the absence of late medieval wares from East Anglia is particularly marked.

Late medieval pottery usage at Stratton shows a slightly greater degree of specialisation than in earlier periods, but still stands at only 3% of the diagnostic pottery: six cisterns, a sprinkler watering pot (Figure 8.1: P291), a cauldron (Figure 6.14: P130), and a handmade dripping pan. Whether the villagers had no desire for such items or lacked the means by which to procure them is unclear, but the pottery assemblage throughout the medieval period tends to lack the innovation seen on contemporary settlements elsewhere.

The changes observed in the medieval pottery assemblage are reflected in the other artefacts, with a slightly greater uptake in Period 7 of items that would have been produced outside of the village. This is again likely to be the result of manorial consumption: concentrations were most apparent in areas L66 and L69, the former being a moated enclosure and the latter containing a concentration of buildings that included a dovecot. Higher-status consumption is also suggested by the low number of craft products and higher number of dress-related items such as buckles, buckle plates, strap mounts and strap ends: there is nothing to suggest that the ordinary villagers at Stratton were any wealthier in the late medieval period than had previously been the case, so these items are likely to have been worn primarily by the family occupying the manor at the time. Floor tiles also feature in the assemblage for the first time, suggesting a greater degree of luxury and ornamentation for the buildings represented on site.

Post-medieval occupation at Stratton was much diminished from the earlier periods. Feature assigned to Period 8 did still yield relatively large assemblages of artefacts, but most of these were residual. Contemporary items suggest that one or more of the late medieval buildings in area L69 continued in use as a residence, perhaps to oversee the extensive quarrying that took place to the south and west, but the overall assemblage shows few signs of contemporary domestic consumption.

Despite the reduction in size of the artefact assemblage, the pottery reflects the much more extensive links that had begun to be established across England and beyond. Late-medieval connections with the Northamptonshire and Buckinghamshire ceramic industries appear to have continued, while vessels from Surrey, Staffordshire and either London or Bristol are all represented, and some 22% of the assemblage derives from continental trading links with Germany, France and the Netherlands. Exactly when domestic occupation ceased within the excavated areas at Stratton is unclear, but there are at least signs of activity there well into the 18th century, so these imports may be more indicative of the increased globalisation of trade by this time than of particular wealth or personal trading links with the wider world.

Manufacture of goods

Despite the extent of the excavations at Stratton, and the huge quantity of remains investigated, not a single feature was identified to which a purely industrial function can be attributed. This reflects the nature of the artefact assemblages: items that are likely to have been made within the settlement itself consistently point towards craft production at a domestic level, with more specialised industrial activity only apparent from the later medieval period. The overall assemblage suggests a general level of continuity in what was being produced throughout the Anglo-Saxon period, only changing during the medieval period as a greater degree of specialisation crept in at Stratton and beyond, with a greater reliance on traded goods. No pottery kilns were identified from any period, although an origin within a few miles of Stratton is plausible for at least some of the pottery recovered.

Deposits from the early Anglo-Saxon period onwards consistently yielded evidence for ironworking, but in

all cases this is more likely to have been at a domestic than an industrial level. All the debris recovered was redeposited, so no firm evidence was found for exactly where the ironworking took place. The quantity of by-products peaked in Period 5 at 7.3kg – the periods on either side produced only half as much – but even this late Anglo-Saxon assemblage of ferrous smithing slag and hearth bottoms suggests no more than the occasional repair of tools, perhaps on a seasonal basis. The reduced quantity of slag recovered from medieval deposits may be an indication that smithing activity had become more centralised, with a specialist blacksmith perhaps operating in an unexcavated part of the village.

A small amount of non-ferrous metalworking was also undertaken at Stratton. Minor quantities of lead waste and off-cuts were recovered from medieval deposits in both Periods 6 and 7, but these generally suggest no more than occasional caulking or repairs. Slightly greater concentrations around the late medieval buildings in areas L69 and L72 (Period 7) may be a sign that the lead working was related to structural fittings such as gutters and flashing. A fragment of a two-piece ceramic mould (OA128) may additionally indicate that non-ferrous metals were being cast, although the date is uncertain: the item was recovered from early medieval deposits, but its spatial association with residual early–middle Anglo-Saxon pottery could indicate an earlier origin.

In common with most Anglo-Saxon settlements, artefacts were recovered that attest to textile production. The extent of the production increased from the early to the late Anglo-Saxon periods, but only in line with the corresponding increase in the size of the settlement. There was no conclusive evidence for textile production continuing into the medieval period: while single-ended pin beaters recovered from medieval deposits may have been used for making tapestries, it is also possible that they represent residual items that were used with late Anglo-Saxon looms.

Bun-shaped loom weights and spindle whorls with narrow central perforations both attest to the use of warp-weighted looms for weaving in the early to middle Anglo-Saxon period. A transition to two-beam vertical looms is thought to have taken place in the later 9th to early 10th century in towns, but not until the later 10th or 11th century on rural sites (Walton Rogers 1997: 1755–61). No accurate date can be assessed for this transition at Stratton, but the recovery of two single-ended pin beaters from areas L34 (Phase 5) and L24 (Phase 5a) suggests that Stratton may have been one of the earlier rural settlements to make the change. The latter area also contained a pair of shears, which suggests the cutting or tailoring of cloth.

As well as weaving, there is evidence to suggest the processing of fibres – both wool and flax – during the middle and late Anglo-Saxon periods. Fibre-processing spike OA98 is thought to be from a wool comb, and the remains of mineralised wood adhering to a spike from Phase 4b well G5246 suggest that it formed part of a flax heckle, an activity thought to have been largely carried out in the open air (Walton Rogers 1997: 1796–9).

There is generally very little representation of bone- and antler-working at Stratton. Examples of the finished products were found in small quantities, but only very occasional off-cuts dating to Periods 4 to 6 prove that these materials were being worked on site. The pivoting knife recovered from Phase 5 area L36 may also be evidence of this: although such knives could have been used for a variety of activities, they are thought to have had a specialist purpose, such as wood-, bone- and leather-working (Ottaway 1992: 587; Biddle and Brown 1990: 738–41)

With the exception of antler and bone combs, most of the items made of these materials were fairly simple to manufacture, and despite the lack of direct evidence, it is reasonable to assume that they were made within the settlement rather than being traded from elsewhere. The objects recovered from Anglo-Saxon deposits (and a few from medieval deposits) include combs, pin beaters, dress pins, a buzz bone and bone skates; such items appear to have been in use throughout those periods. Their general absence from later medieval and post-medieval deposits could indicate that there was less emphasis on textile production, or that the people were able to buy metal equivalents (which would have been more expensive and therefore less likely to be discarded).

Other evidence of manufacturing at Stratton is very limited. In addition to the pivoting knife from L36, an iron spoon bit and chisel were also recovered from late Anglo-Saxon deposits, suggesting that woodworking was being practised to a minor degree. Only the deposits in area L84 (Period 8) yielded evidence of any sort of manufacture at an industrial level: water-pits G5897 and G5901 contained debris from a cobbler's workshop, including an array of 15th- and 16th-century footwear and a wooden stool or workbench that was heavily marked by its use as a cutting platform. Other items from the same pits point towards craft or industrial activities such as milling, flax retting, woodworking and dairying, suggesting that L84 abutted an area of concentrated craft or industrial activity in late medieval Stratton, presumably located to the east.

Death and burial

Despite the scale of the excavations at Stratton, and the duration of settlement there, skeletal remains of

the inhabitants were scarce. The medieval villagers are likely to have been buried in a churchyard elsewhere: Biggleswade church is the most plausible venue, where at least some of them are known to have been interred (Digital Appendix A2: section 3.7). There is no evidence that St Mary's Chapel in Stratton had its own burial rights – but even if it did, any cemetery associated with the chapel must have lain beyond the excavated areas.

Aside from a Bronze Age and two Iron Age cremation burials, the earliest graves identified formed part of Phase 4a cemetery L9 (Figure 3.7). Radiocarbon dating indicates that the first individuals were interred around the middle of the 7th century (Table 3.3), yet settlement had existed at Stratton for at least a century before that, on at least an intermittent basis. The absence of a contemporary cemetery in the immediate vicinity is a familiar aspect of the excavation of early Anglo-Saxon settlements, although the explanation for this absence is uncertain. Too few corresponding settlements and cemeteries have been excavated to establish a coherent picture of what burial practices applied in the 5th and 6th centuries, although it is clear that at least some communities shared communal cemeteries (Hamerow 2012: 122). The early inhabitants at Stratton may similarly have been buried in a communal cemetery beyond the limits of the settlement, or each household might have made its own burial arrangements in a way that cannot be detected in the archaeological record: the evidence is lacking to determine their arrangements either way.

Whilst known 5th- and 6th-century cemeteries do at least appear to share a degree of uniformity in character, the following centuries prior to the increased regularity of burial within Christian churchyards gave rise to a divergent range of approaches (Morris 2011: 180–1). The two cemeteries revealed at Stratton share some common traits, but differ from each other in a number of ways, while human remains were also discovered outside of these two cemeteries in very different contexts.

Radiocarbon dating (Table 3.3) suggests that the earlier of the two cemeteries (L9) started off as a single line of graves, with a few additions on either side. Both sexes and all ages were represented, while knives, a buckle, a spearhead, a key, a girdle-hanger and lace tags were all present among the assemblage of grave goods. The eight individuals within the later cemetery (L19, Phase 4b) showed a similarly broad age range, from an infant to an elderly man, but the radiocarbon results in this case suggest that they were buried in a single episode – except perhaps for the southernmost grave.

Although the later burials in cemetery L9 appear to represent a distinct second episode of the cemetery's use, the presence of a knife within grave 7414 may indicate that the person was buried no more than a generation after the cemetery's foundation. Even though this skeleton's radiocarbon determination at 95% confidence allows for a date potentially as late as AD 770, the practice of furnished burials is currently believed to have ceased about a century earlier (Bayliss *et al.* 2013b, 464–73). Unfurnished inhumation 7419 could plausibly have belonged to a third episode of use, however, with a slightly later radiocarbon determination, although this apparent absence of grave goods may simply have been due to truncation by a medieval ditch rather than a genuine absence at the time of interment.

The burials in the Phase 4b cemetery were arranged in a horseshoe-shaped pattern (Figure 3.23), moving in descending order of age clockwise from the south-west, apart from the young child in the southernmost grave. Almost identical radiocarbon dates were obtained for the three individuals whose bones were tested (Table 3.7): in view of the age range and sex of the skeletons, does the cemetery represent the demise of almost an entire household in a single event? The burial of the young child out of sequence perhaps indicates a lone survivor, whose own death came shortly afterwards.

Whereas the burials in the Phase 4b cemetery can be interpreted as representing an arrangement that was designed for a single episode of inhumation, the linear pattern of the graves in cemetery L9 (Figure 3.13) would have been more conducive to its repeated use as a burial ground. The general regularity of the main line of burials (G613), with a distance of about 2m between the centre of each, was broken only twice: an 'empty' grave (i.e. one that contained no surviving skeletal remains, at least) was inserted near the southern end of the line (Figure 3.7); and a 3m-wide gap was left near the centre. There is generally little evidence from Anglo-Saxon cemeteries for internal divisions or access paths (Williams 2011: 255), but it seems plausible to suggest that this gap was designed to allow space for a path. If the path was perpendicular to the line of burials, then it would have led directly to building G615. Exactly what function this building served cannot be determined from the archaeological evidence, but its position and shared orientation with the cemetery strongly suggest that the two were related. Blair (2018: 302) has identified a small number of buildings such as this that predate the established late Anglo-Saxon growth of church architecture; their lowly appearance (at least from their visible remains) is in contrast to the grandeur expected of later buildings, but such structures may still have performed the function of a church, enabling small local communities to come together within a Christian framework for funerary and other religious ceremonies.

Not all the graves found at Stratton occurred within cemeteries. Phase 5a inhumation burial G5261 (Figure 4.2) was radiocarbon-dated to cal. AD 870–990 (Table 4.1), and Phase 5b burial G5681 (Figure 4.9) was dated to cal. AD 990–1170. Both occurred in apparent isolation, although the earlier burial lay only just within the edge of the excavation area, so the possibility that additional burials existed nearby cannot be ruled out. Burial G5681, however, stands out for being dug into the silted-up ditch of a Bronze Age barrow. Whatever the precise date at which Christianity became the dominant religion for the people living at Stratton, it was surely earlier than AD 990, and although Christian appropriation of prehistoric monuments was relatively commonplace (Semple 2011: 750–1), this seems an unlikely explanation for the burial of an infant in such a location. No archaeological evidence can be adduced to explain why the child was buried here – perhaps some element of the birth or the parents' background prevented burial within a Christian cemetery, or maybe the location was a conscious choice by someone who still adhered to pagan religious beliefs.

A further instance of the non-Christian disposal of human remains comes from two wells and their recuts in area L23 (Phase 4b). Fifty fragments of disarticulated human bone were recovered from these features, the vast majority of which display possible evidence of butchery in the form of what appear to be cut and/or cleave marks, made while the bones were still green (with flesh on). All three individuals were adults, but the presence of less than 25% of each person limits further characterisation beyond saying that one was a possible male, one a possible female, and two were aged over 36 years (Digital Appendix A6).

The disarticulated remains in the two wells appear to have been deposited mostly in the 8th or 9th century: two of the bones produced radiocarbon dates of cal. AD 690–890 at 95% confidence, and a third one cal. AD 670–890 (Table 3.6). A fourth date of cal. AD 710–970 is compatible with a single episode of deposition for all the individuals represented, but a further date of cal. AD 880–1020 makes it more likely that the remains were placed in the wells on at least two separate occasions, perhaps as much as a century or more apart. This is supported by the recovery of the bones from ten separate deposits within the two wells: this may be due in part to mixing of the deposits when the wells were recut, but it further suggests that human bones were placed in the wells on more than one occasion.

Why did these 50 fragments of disarticulated human bone end up in the wells – and why was less than 25% of each represented individual present? The possible cut marks present a further puzzle: while not presenting conclusive proof that the bones were indeed butchered, the more convincing cut marks do closely resemble those commonly seen on butchered animal bones, and the likelihood that they were made while the flesh was still on the bones suggests that they did not simply originate from graves which had accidentally been disturbed. The people may have been murder victims, or someone may have wished to harm the settlement by throwing these corpses down the wells in order to contaminate the water supply, but neither of these theories would explain why less than a quarter of each body was recovered. People through the ages have used body parts for a variety of reasons, from holy relics to witchcraft – or perhaps the people living at Stratton were forced to extreme measures to supplement their diet during hard times. Cannibalism in 8th–10th-century Bedfordshire would seem a sensationalist interpretation of these remains, but the possibility must be considered in the absence of a more prosaic explanation. Support for such a conclusion comes from a study of penitentials and chronicles from the near Continent (principally West Francia) where, between 793 and 1032, a dozen different sources attest to cannibalism in nine years of extreme famine (Bonnassie 1989: 1049). Episodes of famine or 'great hunger' (*micla hungor*) feature in the *Anglo-Saxon Chronicle* during the same period, and the *Liber Eliensis* records a post-Conquest famine at Ely 'so overpowering that people ate the meat of horses, dogs and cats, and human flesh' (Fairweather 2005: 209).

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Stratton, Biggleswade: 1,300 years of village life in eastern Bedfordshire from the 5th century AD presents the results of 12 hectares of archaeological excavation undertaken between 1990 and 2001. As well as uncovering roughly half of the medieval village, the investigations revealed that Stratton's origins stretched back to the early Anglo-Saxon period, with the settlement remaining in continuous use through to *c.* 1700. In contrast to many of the other major excavations of Anglo-Saxon settlements, the evidence from Stratton provides insights into the lives of a low-status rural community, whose development can be traced over the course of more than a millennium. This book presents a chronological account of Stratton's development; evidence for its economy, trading relations, industrial activities and agricultural landscape; and a discussion of how people lived and died there before the village was finally extinguished by the creation of the classic estate landscape of Stratton Park.

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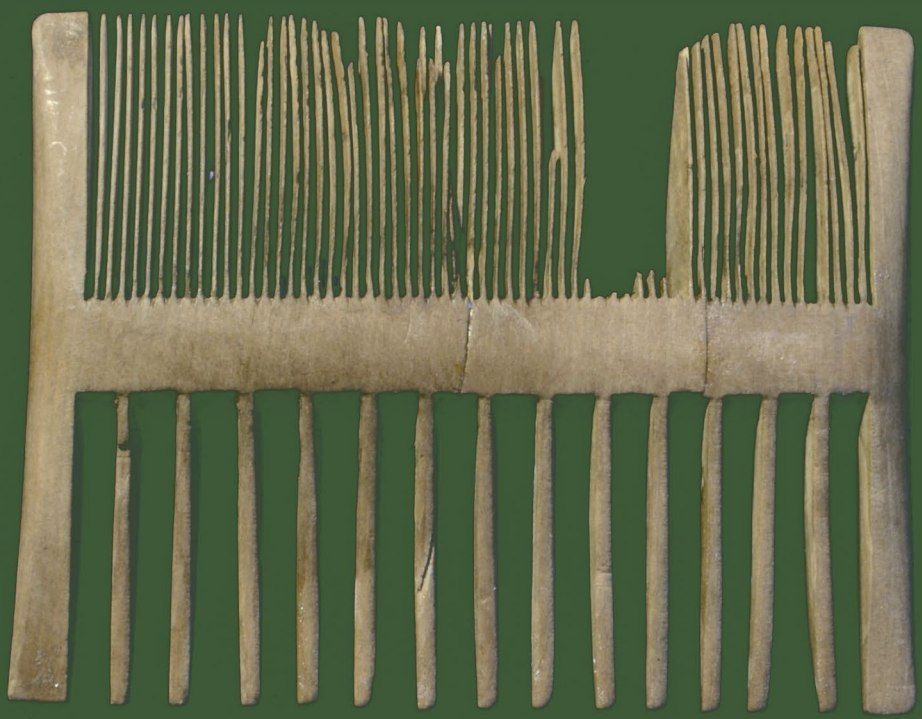

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