Farmsteads and Funerary Sites

The M1 Junction 12 Improvements and the A5–M1 Link Road Central Bedfordshire

Jim Brown

With major contributions by

Paul Blinkhorn, Dana Challinor, Andy Chapman, Chris Chinnock, Joanne Clawley, Olly Dindol, Claire Finn, Val Fryer, Rebecca Gordon, Tora Hylton, Sarah Inskip, James Ladocha, Phil Mills, Stephen Morris and Jane Timby

FARMSTEADS AND FUNERARY SITES

THE M1 JUNCTION 12 IMPROVEMENTS AND THE A5–M1 LINK ROAD CENTRAL BEDFORDSHIRE

ARCHAEOLOGICAL INVESTIGATIONS
PRIOR TO CONSTRUCTION
2011 & 2015–16

Jim Brown

Archaeopress Archaeology

Archaeopress Publishing Ltd
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG

www.archaeopress.com

ISBN 978-1-78969-260-0
ISBN 978-1-78969-261-7 (e-Pdf)

This book is available direct from Archaeopress or from our website www.archaeopress.com

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ACKNOWLEDGEMENTS

Two schemes were evaluated and excavated by MOLA (Museum of London) as separate projects; M1 Junction 12 improvements in 2011 and the A5–M1 link road, 2015–16. MOLA is grateful to Highways England, who commissioned and funded the archaeological work.

The principal contractor for both schemes was Costain–Carillion Joint Venture (CCJV) and particular thanks are extended to the section engineers who managed the archaeological work for CCJV: Nauris Eglitis and Richard Spooner. We would also like to thank the contractor's design team from AECOM Iain Williamson, Neil MacNab and Andrew Copp for their help in the smooth running of these projects. Both schemes were overseen on behalf of the local authority by Martin Oake (Central Bedfordshire Council) and were managed for MOLA by Jim Brown.

The M1 Junction 12 trial trench evaluation was carried out by Mark Patenall and Charlotte Walker, assisted by Adrian Adams, Jonathan Elston, Peter Haynes and Daniel Nagy. Bridge recording was undertaken by Tim Upson-Smith and Yvonne Wolframm-Murray. Geophysical surveys were directed by Adrian Butler in 2006–2008, with assistance from James Aaronson, James Best, Dan Cherry, Paul Clements, Ian Fisher, James Ladocha, Carol Simmonds and John Walford. Fieldwalking was directed by Adrian Butler in 2006–2007 assisted by Adam Kostrzon, Stephen Morris, Rob Smith and Kerryn Stoppel.

At mitigation stage, the M1 Junction 12 improvements were supervised by Jason Clarke and Jonathon Elston. The field team were Adrian Adams, Paul Clements, Sam Egan, Peter Haynes, Luke Jarvis, Daniel Nagy, Mark Patenall, Myk Riley and Peter Townend. Pat Chapman excavated the urned cremation burials in the laboratory.

Trial trench evaluation for the A5–M1 link road was conducted by Jason Clarke, Laura Cogley, Christopher Jones, Anne Foard, David Haynes, Gemma Hewitt and Piotr Kieca. The geophysical survey was carried out by Carol Simmonds, Ian Fisher and Adrian Butler, assisted by James Brown, Dan Cherry, Paul Clements, Mark Holmes, Paul Kajewski, James Ladocha, Wallis Lord, Rhiannon Mann, Stephen Morris, and John Walford. Bridge recording was undertaken by Yvonne Wolframm-Murray and Anne Foard.

At mitigation stage the different archaeological sites along the A5–M1 link road were directed by team leaders Chris Chinnock, Paul Clements, Jonathan Elston, James Fairclough, Ian Fisher, Gemma Hewitt, Christopher Jones, Adam Meadows and Adam Reid. Site survey was carried out by Olly Dindol, Anne Foard and James Ladocha. The field team consisted of staff from both MOLA offices (Northampton and London) and Albion Archaeology: James Alexander, Mila Andonova, Sote Angelessa, Hypathia Atheiria, Emma Bayley, Hayley Bosworth, William Brittain, Angel Carrera, Laura Cogley, Hanno Conring, Adam Douthwaite, Beth Doyle, Mike Emra, George Everest-Dine, Katie Facia, Paulina Galewska, Emma Gilhooly, Tori Hainsworth, David Haynes, Peter Haynes, Ben Kidd, Piotr Kieca, Allan King, Konrad Lewek, Gary Manning, Carla Marchetto, Sinead Marshall, Karen McCusker, Jason Murphy, Bartoz Nawrocki, Anna Nicola, Anna Orlowska-Synus, Jorge Parreira, Chris Pennell, Laura Polder, Thomas Revell, Lara Rodrigues, Gareth Shane, Andrew Smith, Rob Smith, Victoria Standfield, Anna Standish, Adam Starachowski, Jess Stevens, Michael Stuart-Steel, Piotr Szczepanik, Derry Townsend, Catie Watts, James West, Heather White and Adrian Woolmer.

Sincere thanks are extended to each of the specialists named on the page of contributors and to other specialists providing advice, including Dr Esther Cameron and Dr Adam Sutton. Considerable thanks go to the illustration team led by James Ladocha and assisted by Amir Bassir, Joanne Clawley, Olly Dindol, Hannah Faux and Izabela Jurkiewicz. Tora Hylton would like to thank Graham Morgan and Beth Werret for X-radiographing the artefacts. Mary-Ellen Crothers would like to thank Sam Mellonie and Stephen Coleman of the Central Bedfordshire and Luton Historic Environment Record for supplying copious quantities of data on sites around the road schemes.

The publication was written principally by Jim Brown with assistance from Stephen Morris and Claire Finn who undertook parts of the archive analysis and text which was adapted for this publication report. Thanks are also due to Mary Ellen Crothers for compiling the bibliography. Particular thanks are due to Claire Finn and Mark Holmes for internal proofreading/editing and Pat Chapman for external proofreading.

This publication was externally monitored by Peter Fasham (Jacobs), Martin Oake, Neil MacNab and Andrew Copp. We are especially grateful for their patience, helpful advice and comments throughout the reporting process. Sincere thanks are also extended to the two external referees; Paul Stamper

(University of Leicester) and Mark Maltby (University of Bournemouth), for their specialist guidance and overview of the volume.

Project files and data sets that may be of interest to researchers are contained upon the accompanying digital data package, accessible by QR matrix barcode. Grey literature reports are available through the Archaeology Data Service (ADS) website. A paper copy of all the research notes and data sets are contained within the archive held by Luton Culture.

This publication is dedicated to Anne Foard, who passed away in November 2017 after many years with Northamptonshire Archaeology, and later MOLA Northampton. Her hard-work and dedication during several stages of this project helped this publication come to completion.

Chapter 1

INTRODUCTION

This publication presents the results of archaeological fieldwork conducted on two separate highway schemes in close geographical proximity and with strong archaeological relevance to each other. Both projects were conducted in advance of construction, commissioned by Costain–Carillion Joint Venture (CCJV) for Highways England, monitored and managed by the designer's archaeologists, AECOM (formerly URS, formerly Scott Wilson), in consultation with Central Bedfordshire Council (CBC).

LOCATION AND CIRCUMSTANCES OF THE FIELDWORK

The M1 Junction 12 improvements and the A5–M1 link road both lie in south Central Bedfordshire, immediately to the north of Luton and Dunstable (Fig 1.1). The two schemes are 4.5km apart. The M1 Junction 12 lies on a spur along the north side of the Flit Valley near Toddington and was improved in 2011. The next valley to the south of this belongs to the Ouzel Brook, a tributary of the River Ouzel. The A5–M1 link road,

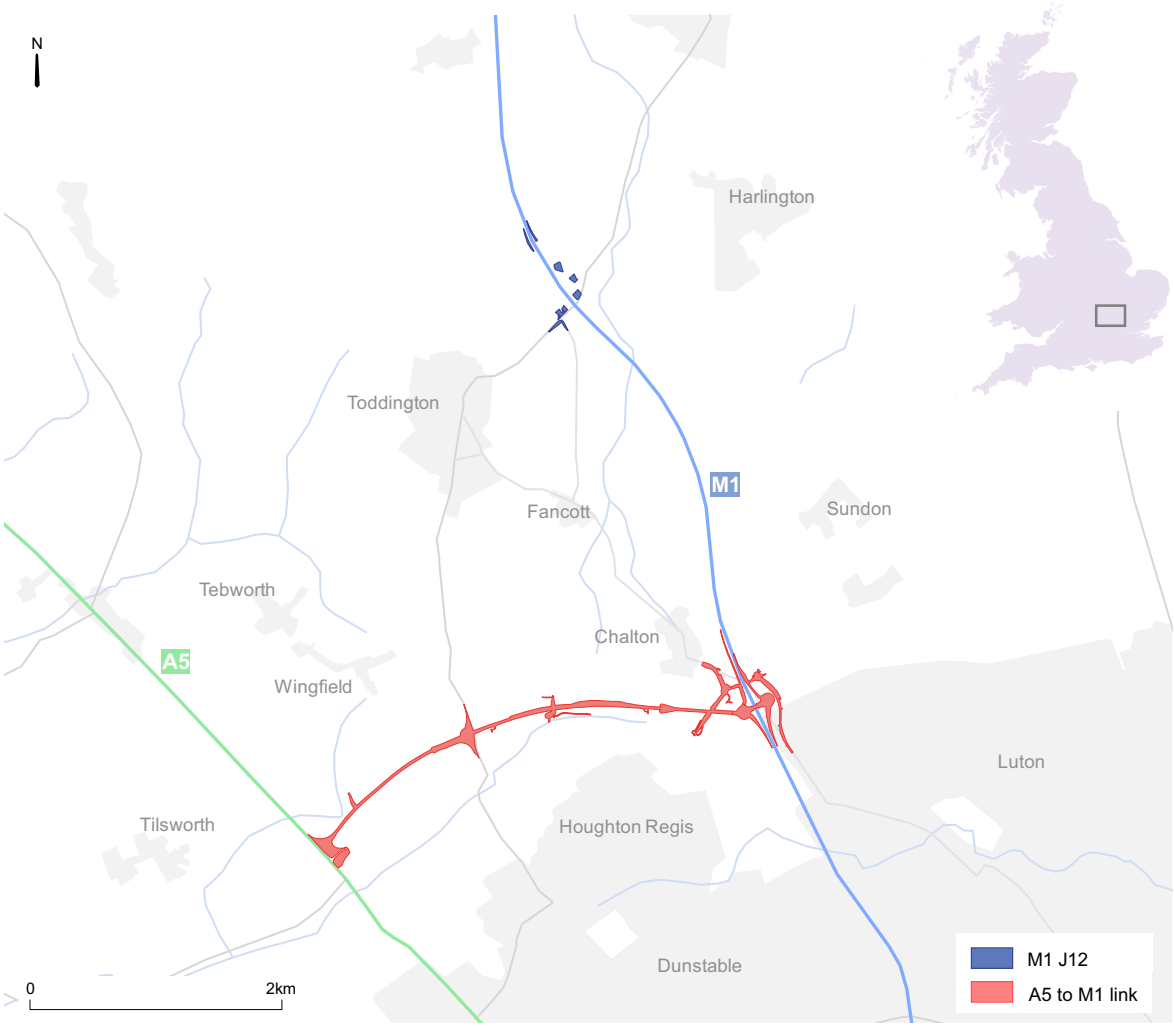


Fig 1.1 Location of the M1 Junction 12 improvements and the A5–M1 link road

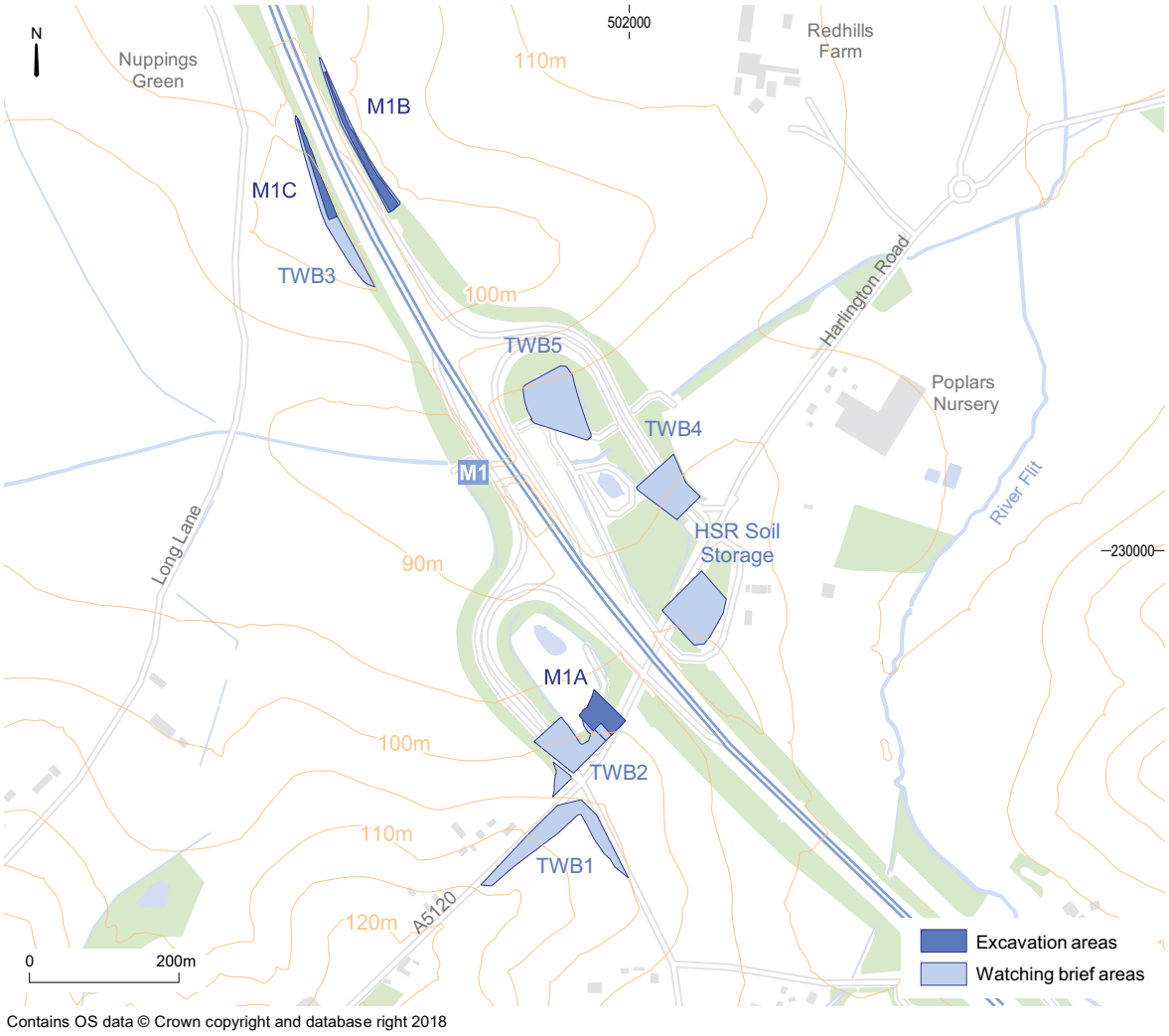


Fig 1.2 Fieldwork locations, M1 Junction 12

which was built in 2015–16, follows a route along this tributary valley and its junction with the M1 (Junction 11a) lies at the crest of the watershed with the Flit Valley at its east end. Both schemes are geographically interrelated and produced evidence that comes from parts of the same archaeological landscape.

M1 Junction 12 improvements

Between February and April 2011, Northamptonshire Archaeology (NA), now Museum of London Archaeology (MOLA), carried out a series of archaeological excavations in the vicinity of M1 Junction 12, near Toddington, Central Bedfordshire (Fig 1.2; NGR TL 01947 29821 and TL 01699 30297).

A series of works, including an Environmental Impact Assessment, has been undertaken since 1992. Initially, fieldwalking was undertaken in advance of the Environmental Statement for the preferred route of the M1 widening, Junctions 10–15 (Acer 1994; BCAS 1992; 1993; 1995). This was followed by a desk-based study and detailed walkover in support of Stage 2 Assessment for a modified preferred route. NA conducted fieldwalking and geophysical surveys in 2006 for the Stage 3 Detailed Assessment (Mudd 2006a-b; HA 2007b). Stage 3 reviewed all documentary and desk-based study evidence and the archaeological analysis of LiDAR data (HA 2007d). The work was subsequently updated with the results of additional fieldwalking and geophysical surveys by NA (Burrow 2008a; Butler 2008).

Following these preliminary investigations URS determined that a further programme of archaeological evaluation would be undertaken prior to development to comply with the *Design Manual for Roads and Bridges* (HA 2001). A Written Scheme of Investigation (WSI) outlined the requirements of the programme (HA 2010), and trial trench evaluation was then undertaken by NA (Walker 2010), according to industry guidance and standards and the Northampton Archaeology fieldwork manual (NA 2006).

The evaluation confirmed the presence of important archaeological remains and it became apparent that further investigations would be required. An updated

WSI outlined an archaeological mitigation design (HA 2011), with specific provision for detailed archaeological excavation of significant archaeological sites, targeted watching briefs (TWB), historic hedgerow recording and building recording of the 1960s motorway overbridge. Method statements were prepared by NA in advance of the fieldwork (Brown 2011; Walsh 2011). The Accession code, LUTNM:2010.67, was assigned by Luton Culture in agreement for the receipt of the archive in accordance with their deposition requirements (BM 2010).

Detailed archaeological excavation was required for a late Iron Age/Roman cremation cemetery and adjacent ditches at Site M1A, a pyre site and nearby ditches at Site M1B, and medieval to post-medieval occupation at Site M1C, the latter including a pot bank of pottery wasters (Fig 1.2, 1.20). Five targeted controlled archaeological watching brief areas (TWBs) were defined and monitored for indications of further significant archaeology where sparse or dispersed archaeological remains had been identified (Fig 1.2). Following the discovery of the medieval potters' waste and associated post-medieval building deposits at Site M1C, an updated site-specific excavation strategy was implemented (URS 2011; Figs 1.19 and 1.20).

In addition, a section of historic hedgerow, identified in the Cultural Heritage chapter of the Environmental Statement, was recorded before its removal (HA 2009a), and building recording was conducted to English Heritage Level 2 standard on the M1 motorway overbridge prior to dismantling (EH 2006b; Upson-Smith 2012). A small-scale general watching brief with negative results was conducted at TL 05196 23488, near Leagrave, Luton (Brown 2012a).

After completion of the fieldwork, a Stage 1 assessment report and updated project design was compiled to address key themes for local and regional research and to outline further work (Clarke 2012). This work led on to a Stage 2 analysis report that formed a synthesis of the further work (Brown 2015c), and is the basis for Chapters 4 and 8 within this volume.

A5–M1 link road

This scheme comprised a 4.5km long dual carriageway link from the A5, on the north side of Dunstable, to the M1 motorway on the south-west side of Chalton where Junction 11a was built (Fig 1.1; between NGR SP 99602 24460 and TL 0383 2587; Figs 1.5 and 1.6).

Initial archaeological surveys were undertaken in 2006–7 to assess the cultural heritage impact of the scheme and to inform an Environmental Statement (HA 2009b). Desk-based assessment of a Baptist burial ground at Thorn was undertaken by Scott Wilson (HA 2006c). The report concluded that the extent of the burial ground would not be affected by a proposed overbridge that would be constructed nearby.

Selected geotechnical trial pits were monitored during excavation (HA 2007c) and geophysical survey was conducted along available sections of the route (Burrow 2008a). An archaeological trial trench evaluation was undertaken to assess the results of the geophysical survey, where accessible, and to investigate the archaeological potential near Thorn Farm (Simmonds and Fisher 2008, NA 2006). A total of 29 trenches of various sizes were excavated, which produced evidence of archaeological activity dating from the Bronze Age to the post-medieval period, complementing the geophysical surveys.

Further work commenced in May 2014 to expand the evaluation into areas that were previously inaccessible; the scheme of work was outlined in a WSI prepared by AECOM (HA 2014a-b). A further 43 trial trenches and 27 hand excavated test pits were investigated as part of this phase (Brown 2014a; 2015a-b). These later stages of work were undertaken according to the MOLA fieldwork manual (MOLA 2014b). The product of these evaluations, both in 2007–8 and 2014–15, was a broader overall understanding of the distribution, date and extent of archaeology across the whole scheme, allowing a mitigation strategy to be formulated.

The requirements of the mitigation strategy are described in the *Archaeological Strategy Report* (HA 2014a). A WSI was prepared by AECOM that established a detailed design for the archaeological mitigation (HA 2015a). *Further Archaeological Design Documents* (FADDs) were issued to provide greater technical clarification on the scope and extent of mitigation for specific areas, using the initial WSI as the baseline for the project aims, objectives and methodology (Table 1.1; HA 2015b-h). Areas of archaeological mitigation were spread throughout the catchment of the scheme (Figs 1.3–1.4). These works commenced in February 2015 and the majority of fieldwork was completed by the end of June, with final monitoring of general watching briefs in minor areas extending until July 2016.

A single combined archive of records and artefacts was compiled for the evaluation and mitigation work as a whole. The paper archive comprises the initial *Strategy Report* (HA 2014a), *Detailed Design* (HA 2015a), each subsequent FADD (Table 1.1), all pertinent background information, method statements (MOLA 2014a; 2015), permatrace site plans, section drawings, field record sheets, registers, photographs (both digital images and 35mm monochrome contact prints), previous archaeological reports (Simmonds and Fisher 2008; Burrow 2008b; Brown 2014a-b; 2015a-b, d), the Stage 1 *Assessment and Updated Project Design* (Brown 2016), a

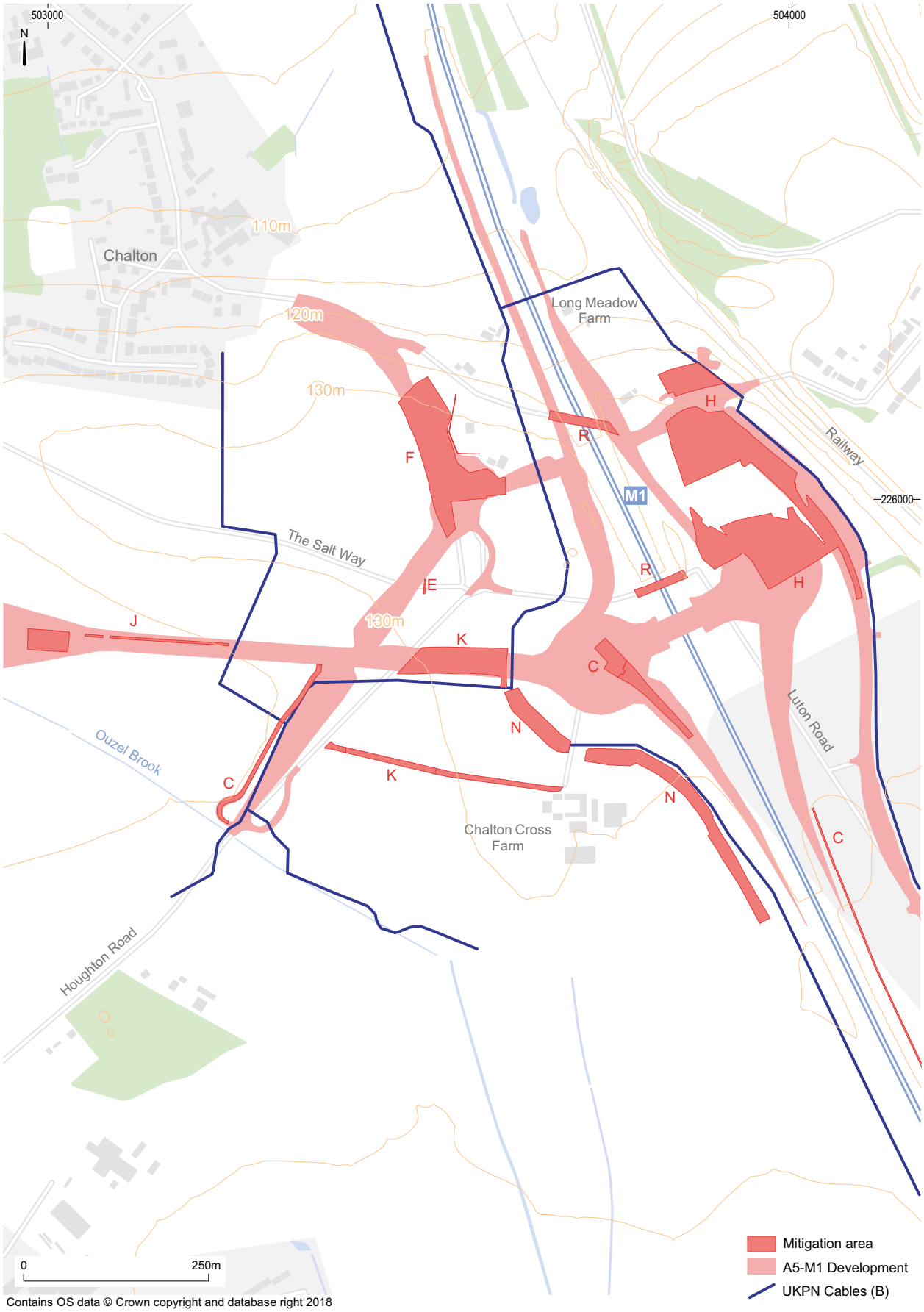


Fig 1.3 Fieldwork locations, M1 Junction 11a for the A5–M1 link road

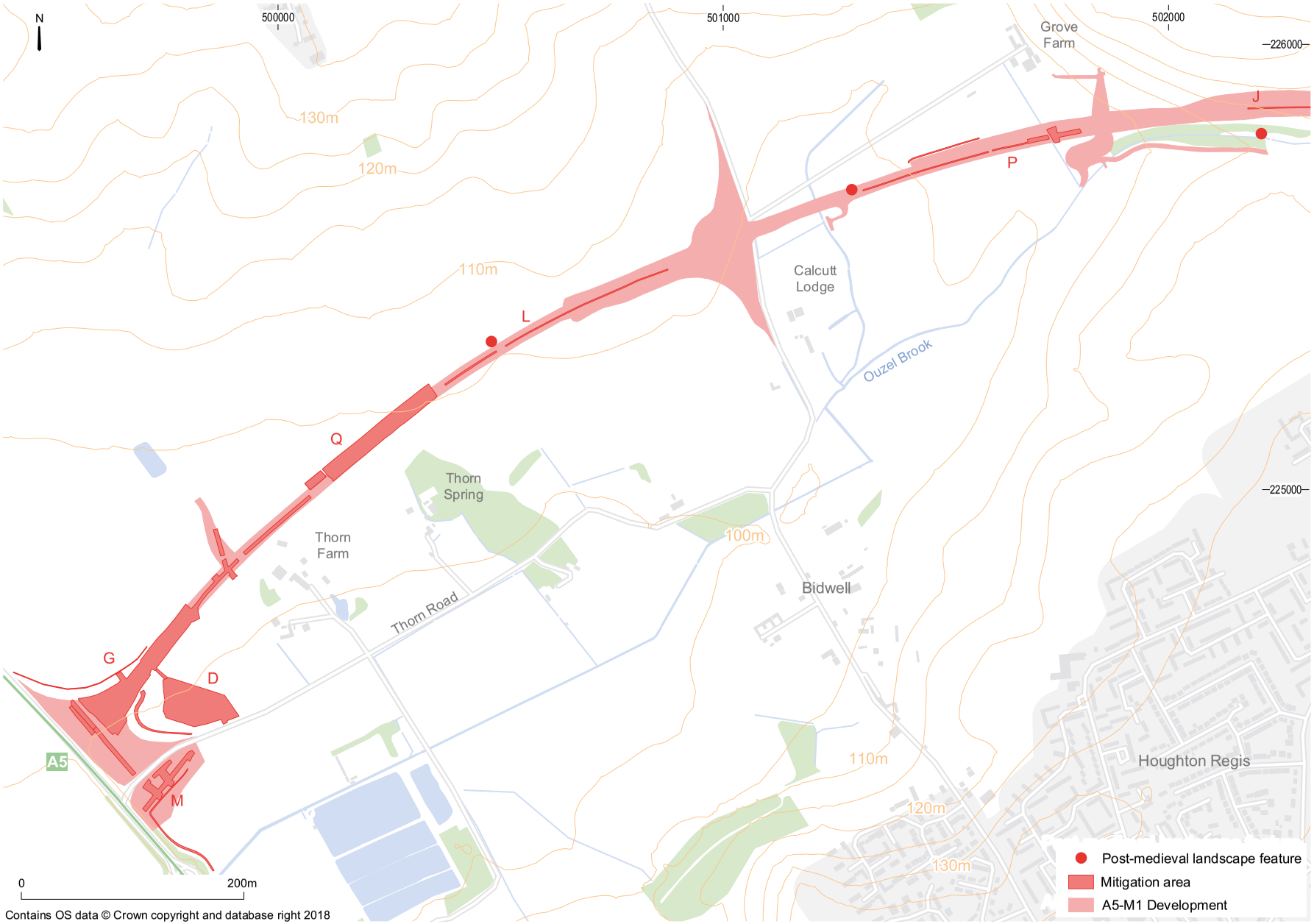


Fig 1.4 Fieldwork locations along the western extent of the A5–M1 link road

Table 1.1: Site codes and common names used for post-excavation, reporting, publication and accession of the archive

Archive code	Environmental Statement	Specification for work carried out	Location	Description of archaeology found
A	Sites 5-9	Archaeological trial trench and hand-dug test pit excavations (HA 2014b), following on from earlier evaluation surveys (Simmonds and Fisher 2008; Burrow 2008b)	Scheme-wide	various suspected features confirmed and an absence of features demonstrated in other locations
B	Sites 8-9	General watching brief for UKPN on cable trenches (HA 2014c)	Long Meadow Farm NGR TL 04077 25957	undated, probably prehistoric, pit
C	Site 8	General watching brief for CCJV at M1 Junction 11a (HA 2015d)	Chalton Cross Farm NGR TL 03786 25714	late Bronze Age/early Iron Age pits undated, probably middle Iron Age boundaries
D	Site 1	Detailed archaeological excavations of the Thorn Road site compound (HA 2015b)	Thorn Road NGR SP 99743 24516	early Iron Age pit clusters and middle Iron Age field systems
E	Sites 10	Topographic survey and hand excavated mitigation trenches (HA 2014d)	Salt Way (*Thiodweg*) NGR TL 03482 25886	no evidence of ancient trackway undated spread overlain by post-medieval bank
F	not identified	Detailed archaeological excavations and targeted watching brief at Luton Road, Chalton (HA 2015c)	Luton Road NGR TL 03553 26042	late Iron Age/Roman cremation cemetery and charnel pit early/middle Saxon pottery and loomweights medieval settlement; buildings, enclosures and pits
G	Site 1, Area 2	Detailed archaeological excavations and targeted watching brief between Thorn Farm and A5 Watling Street (HA 2015d-e)	Thorn Road NGR SP 99590 24540	early-middle to late Iron Age settlement widely distributed field boundaries isolated roundhouse, north-east of main settlement
H	Site 9	Detailed archaeological excavations and targeted watching brief at Long Meadow Farm, east of the M1 Junction 11a (HA 2015f)	Long Meadow Farm NGR TL 03904 26071	late Bronze Age/early Iron Age pits late Iron Age/Roman trackways and enclosures late Iron Age/Roman pyres and cremation cemetery late-middle Saxon inhumation burials
I	archive code not used		-	-
J	Site 7	General and targeted watching brief for Ch3100-4150 (HA 2015d)	Land north of the Ouzel Brook NGR TL 02999 25815	late Iron Age ditches and pits late Iron Age marsh
K	east of Site 8	Detailed archaeological excavations and targeted watching brief at Chalton Cross Farm (HA 2015g)	Chalton Cross Farm NGR TL 03566 25767	undated, probably middle Iron Age, boundary ditches early-middle Iron Age storage pits and pit cluster
L	Site 11	Topographic survey and hand excavated mitigation trenches (HA 2014d)	Historic hedgerow NGR TL 00500 25320	no evidence of historic boundary modern drainage ditch
L	not identified	General watching brief for Ch1180-1750 (HA 2015d)	Fields west of the A5120 NGR TL 00558 25329	undated palaeochannel Iron Age colluvial/alluvial layers
M	Site 1, Area 1	Detailed archaeological excavation of the Thorn Road balancing pond and general watching brief on the nearby drainage ditch (HA 2015e)	Thorn Road balancing pond NGR SP 99732 24320	largely undated pit alignment, possibly Bronze Age later undated boundary ditches, probably Iron Age
N	east of Site 8	General watching brief for the National Grid gas pipeline (HA 2015d)	Chalton Cross Farm NGR TL 03790 25651	undated, probably middle Iron Age, boundary ditches
O	archive code not used		-	**-P**
-P	Site 12	Topographic survey and hand excavated mitigation trenches (HA 2014d)	Historic hedgerow NGR TL 01300 25660	undated, probably post-medieval, bank and ditch
P	Site 6	General and targeted watching brief at Grove Farm (HA 2015d)	Grove Farm NGR TL 01724 25815	undated, probably Iron Age, pit alignments undated, probably Iron Age, boundary ditches

Archive code	Environmental Statement	Specification for work carried out	Location	Description of archaeology found
Q	Site 3	Detailed archaeological excavations at Thorn Farm, north of Thorn Spring (HA 2015h)	Thorn Farm NGR TL 00241 25125	middle Bronze Age enclosure late Iron Age boundary ditches and enclosures late Iron Age/Roman enclosure ditches late Iron Age/Roman burials medieval timber building and boundary ditches post-medieval boundary ditches
R	2017 & 2018	Houghton Regis Overbridge, 2017, and Chalton Overbridge, 2018, Bridge recording at M1 Junction 11a (HA 2014e)	M1 motorway NGR TL 03721 26108 NGR TL 03822 25892	1958-9 motorway overbridges
S	not identified	Archaeological topographic recording and trench mitigation at Ouzel Brook (HE 2015)	Ouzel Brook crossing NGR TL 02212 25788	post-medieval embankment for stream crossing
T	not identified	General watching brief at M1 motorway, Pond 6 (HA 2015d)	M1 balancing pond 6 NGR TL 04420 24530	undated gullies

copy of this Stage 2 analysis report, and supplementary material used during the post-excavation process. The paper archive is accompanied by the material archive, prepared for Luton Culture under LTNMG:1093 (BM 2010).

For the purpose of keeping an orderly archive, a letter was appended to the entry code as a suffix (Table 1.1). These site codes were used to identify archaeological sites and to separate archival stages of work; they do not relate to area codes in the *Detailed Design* (HA 2015a), many of which became redundant following the evaluation surveys.

The Stage 1 Assessment and UPD, produced after the fieldwork (Brown 2016), laid out the research principles for post-excavation analysis and informed this Stage 2 analysis report.

Fig 1.5 Aerial view taken from above M1 Junction 11a, looking west along the road corridor

Fig 1.6 Aerial view taken from above A5 Watling Street, looking east along the road corridor

LANDSCAPE CHARACTER, TOPOGRAPHY AND GEOLOGY

The two schemes lay in close proximity in an area of landscape that changes subtly in character between Toddington and Houghton Regis (Fig 1.7). The *Central Bedfordshire Landscape Character Assessment* (CBC 2016) describes the relationship between these areas, both of which have been severely impacted by the intensification of transport and communication routes since the 19th century, further compounded by urban growth. Generally, the landscape changes from clay hills to rolling chalk farmland (*ibid,* types 8 and 10).

Toddington is situated within undulating clay hills that fall away from the Greensand Ridge to the north. Nearby settlements tend to lie upon elevated ground with views across the adjacent vales, similar to the known distribution of Iron Age and later settlements. There is little modern woodland and the countryside is characterised by a patchwork of fields bordered by hedgerows (Fig 1.8). Farmsteads, similarly, are scattered across the clay hills, acting as landmarks. Distant views occur from most major hilltops, giving a sense of landscape and place. Small areas of post-medieval parkland bring together modern arable and older pastoral land introducing livestock to the scene. South-west of Toddington there survives a medieval pattern of nucleated settlements immediately surrounded by irregular older enclosures, within which earthworks representing shrunken settlement can often be found. Moated sites with fishponds are common to many of these historic sites. Tebworth and Wingfield each have a planned layout based around greens and instances of multiple townships within each parish are not uncommon to the region. To the east of Toddington the historic parish boundaries of Tingrith, Harlington and Westoning had a complicated arrangement, perhaps because a large woodland once lay beyond the open fields of Toddington, and was later cleared for agriculture (CBC 2016). Ridge and furrow, which is otherwise infrequent across the county, is found in many of the pasture fields. The open fields were largely enclosed by Act of Parliament in the late 18th century.

Further south, towards Houghton Regis, the prominent clay hills give way to gently rolling chalkland dominated by arable fields (Fig 1.9). Most derive from parliamentary enclosure with some smaller, perhaps older, enclosures around the edges of villages often associated with earthworks. Hedgerows, wooded coppices and dispersed farmsteads break up the open countryside and sometimes inhibit views. Medium to

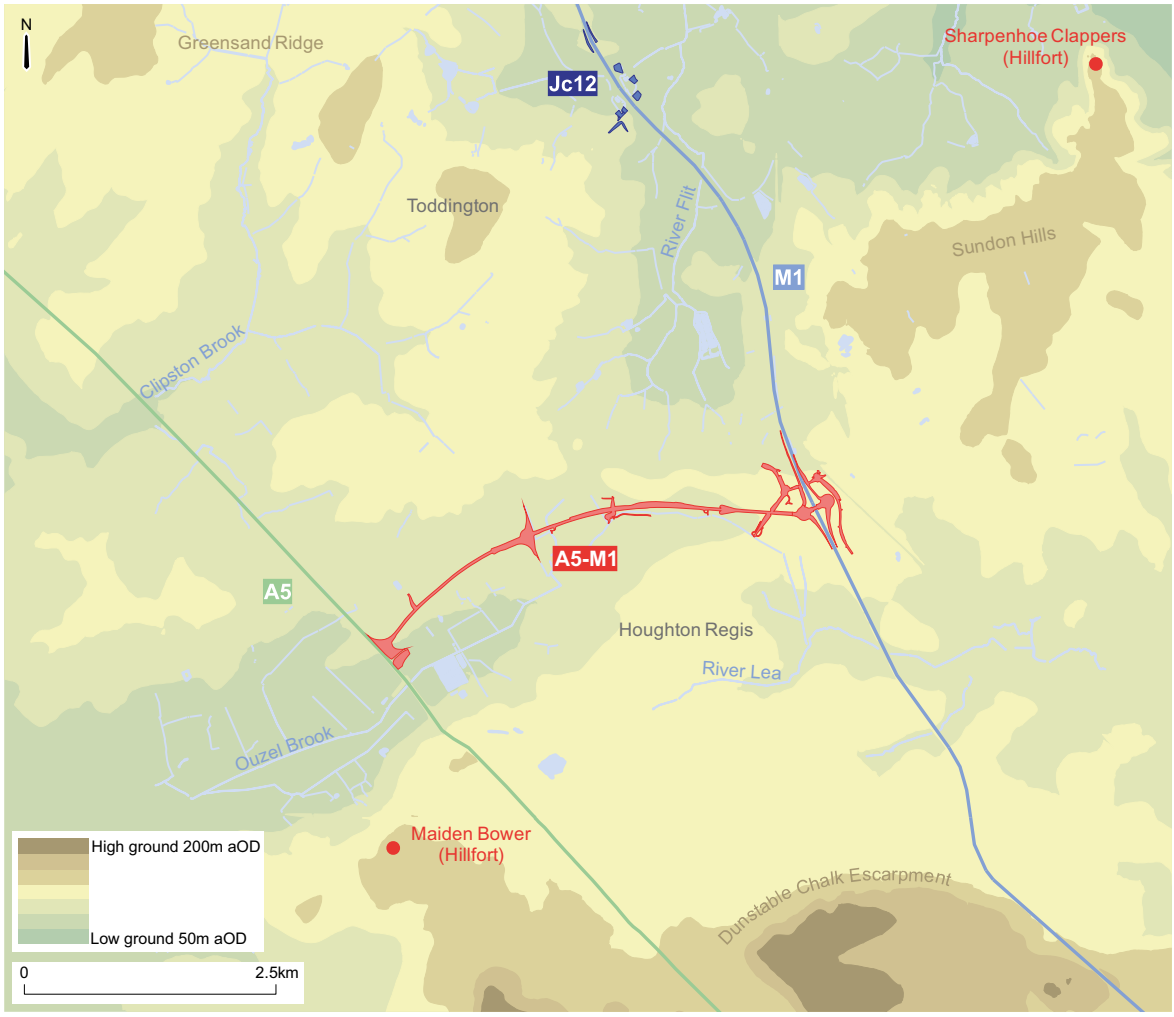


Fig 1.7 Topography of the landscape between Toddington and Houghton Regis

Fig 1.8 View looking north-west from Leighton Road, Toddington, towards Milton Bryan

long range views extend across the flatter land within the valley of the Ouzel Brook. These views are impinged upon by Houghton Regis to the south, creating an invasive urban character that permeates the otherwise rural surroundings. There are distant views towards the South Dunstable Chalk Escarpment that give an impression of how the terrain appeared before the urban growth, and which provide a distant natural landmark (Fig 1.10). Landmarks, natural or otherwise, are largely absent. Few of the churches, for instance, stand prominently in the landscape, and their bell towers rarely rise above the surrounding settlements.

Fig 1.9 View looking south-east from Chalgrave All Saints Church towards Chalton and Houghton Regis

Fig 1.10 View looking south from Lord's Hill, Wingfield, towards Dunstable

TOPOGRAPHY AND GEOLOGY AT M1 JUNCTION 12

The sites lay between Toddington and Harlington, mainly on the west side of the M1 Junction 12. Prior to construction the site comprised arable fields on either side of the motorway. The ground level rose gently to the north and south of a small tributary valley, *c.*90–100m above Ordnance Datum (aOD). The various archaeological sites and targeted watching brief areas were located on the slopes, ridges and in the base of this valley (Fig 1.2). The late Iron Age/Roman cemetery site at Site M1A was located on the lower spur of the valley ridge with a tributary confluence to the north-east. Remnants of a pyre site and ploughed-out stone cairn at Site M1B, and the medieval potters' waste at Site M1C, were located on the upper slope and ridge on the opposite side of the valley to the north-west. The whole area is now an active and busy motorway junction compared to its former rural character (Figs 1.11–1.13).

The bedrock geology is mudstone, sandstone and limestone of the Gault and Upper Greensand Formations and the superficial geology is composed of diamicton (Anglian till) deposits (BGS 1996; 2001; 2018). The soils are mainly of Ashley association, which are characterised by chalky till and comprise fine loamy over clayey soils with slowly permeable subsoil and slight seasonal waterlogging (LAT 1983, 572q).

TOPOGRAPHY AND GEOLOGY ALONG THE VALLEY OF THE OUZEL BROOK

The A5–M1 link road follows the Ouzel Brook Valley from the high ground in the east and descends westwards towards the A5. The M1 Junction 11a lies upon a low natural plateau between the valley of the River Flit to the north, the headwaters for the River Lee to the south-east, and the Ouzel Brook to the south-west (Fig 1.3). The fields around the junction are fairly level and slope very gradually into the valley from *c.*130m aOD. As the road corridor proceeds west it drops gradually along the north side of the Ouzel Brook onto the upper flood plain at *c.*105m aOD where it crosses the A5120 (Fig 1.5). The land is then fairly flat with a very gentle downward slope towards the A5 at *c.*100m aOD (Fig 1.6). The land through which the road passes is mainly arable, with a small amount of pasture in the

Fig 1.11 View looking north-west from Harlington Road, Toddington, before development

Fig 1.12 View looking north-west from Harlington Road, Toddington, during excavation

Fig 1.13 View looking north-west from Harlington Road, Toddington, after completion

Fig 1.14 Aerial view taken from above Wingfield, looking east toward M1 Junction 11a

vicinity of Grove Farm (Fig 1.14). Land boundaries are defined by modern drainage ditches and hedgerows, usually without an apparent bank.

The solid geology comprises units of the Upper Cretaceous (BGS 2001; 2018). The topsoil and subsoil is underlain by both the West Melbury Marly Chalk Formation (Chalk Marl) and Zig Zag Chalk Formation (Grey Chalk), separated with a thin band of Doolittle Limestone. Glacial till was shown to overlie the chalk upon the ridges around M1 Junction 11a.

The soils of the plateau at M1 Junction 11a are of Swaffham Prior association, comprising well drained calcareous coarse and fine loamy soils over chalk (LAT 1983, 511e). The slopes into the valley are covered by soils of Wantage 1 association, which are similar but siltier, and which follow the Ouzel Brook (*ibid*, 342c). The western extent of the route, from the fields west of Grove Farm to the A5, has soils of Block association, which are permeable calcareous loamy soils over chalky gravel (*ibid*, 512e). These soils only form over Cretaceous chalk.

AIMS AND OBJECTIVES OF THE FIELDWORK

The present work is based upon the *Design Manual for Roads and Bridges* and follows the premise that 'remains should be archaeologically recorded in order to 'preserve [them] by record'' (HA 2001, vol 10-6, pt 1, 2/1). This has been undertaken in accordance with an established documented procedure, using approved methods and in consultation with the local authority.

The directive of the archaeological mitigation was to ensure that the resources channelled into the fieldwork targeted tangible research objectives that would produce outcomes capable of making a contribution to archaeological knowledge, proportional to the significance of the remains that were found. Key research themes were drawn from national and regional research frameworks established by Historic England (EH 1997), and archaeologists in the Eastern Counties (Brown and Glazebrook 2000; Medlycott and Brown 2008; Medlycott 2011), and in Bedfordshire (Oake *et al.* 2007).

The archaeological strategy report for the A5–M1 link road (HA 2014a, 2.3) identified overarching themes that were relevant to the region, but which were in themselves too broad for the scope of this project. These topics were translated into site specific objectives following the Stage 1 assessments (Clarke 2012; Brown 2016a).

The approach to both road schemes was essentially the same. The methods of providing mitigation to achieve these objectives were determined by the archaeological

potential as demonstrated by evaluations, targeted stripping and the likely impact of construction. The methods used were detailed archaeological excavation (HA 2015a), targeted watching brief, general watching brief, Level 3 topographic survey (Historic England 2015b) and Level 2 building recording (Historic England 2015a).

M1 JUNCTION 12 IMPROVEMENTS

Detailed archaeological excavation of Site M1A was required to investigate possible industrial/craft waste identified during evaluation and to understand production processes, sources of raw material, products and the economy of the site. Subsequent investigation led to the discovery of the Harlington Road cemetery.

For medieval rural occupation (Site M1B) there was a directive to investigate the type, form and date of surviving structural or building remains associated with cobbled surfaces and burnt timber identified during evaluation. Two medieval ditches were found at the site, but there was no evidence for a medieval building or surfaces, and the remains were instead found to be associated with a late Iron Age *bustum* burial and pyre site (Fig 1.15).

Chance discovery of medieval potters' waste and post-medieval buildings at Site M1C during the targeted watching brief allowed these objectives to be appropriated for a different site. In addition, the work sought to confirm the relationship with the adjacent historic settlement at Nuppings Green, and to seek to understand its economy, agricultural regimes and cereal crop processing. This was possible from the perspective of the potters' economic activities, although bulk soil samples produced insufficient plant macrofossils to inform upon agricultural activities.

Specific aims of the targeted watching briefs were directed toward obtaining dating material in order to place archaeological features of otherwise unknown date within a chronological framework. This was successful where archaeological features were identified (Site M1C) and detailed hand excavation was undertaken to recover artefacts and other datable evidence.

The specific objective of the historic hedgerow recording was to record the presence/absence and date of any surviving buried soil horizons sealed beneath the hedge bank. In actual fact no buried soil horizons were found. Topographic survey and hand excavated mitigation trenches examined some additional earthworks and historic trackways to examine and record a cross-section of such features before removal (Fig 1.16).

Fig 1.15 Cremation burials required detailed excavation, Site M1A

Fig 1.16 Hand-excavated trench providing a cross-section through Site E

Fig 1.17 The Chalton overbridge before demolition, Site R, looking south-east

The objective of the building recording survey of the overbridge (Fig 1.17) was to provide a permanent record of the structure to Historic England Level 2 standards.

A5–M1 link road

The objectives set out in the Written Scheme of Investigation (HA 2015a, 8) remained fairly general because of the rapid onset of construction immediately following on from the final stages of evaluation. The WSI included research themes from the archaeological strategy report (HA 2014a), which are incorporated into the following section. Although reconnaissance surveys and evaluations had been undertaken from 2006–7, the scheme had sat in abeyance until a Principal Contractor was confirmed in 2014. This meant that completion of the evaluation in many areas had awaited full land access. With little time between evaluation and the start of construction, the ability to establish site-specific objectives was limited and so these evolved as a product of ongoing discoveries, which were subsequently outlined by the Stage 1 assessment report (Brown 2016).

Research themes and the significance of results

The archaeological strategy report for the A5–M1 link road identified specific research themes that were in themselves too broad for the scope of the project (HA 2014a, 2.3). The topics were refined and were incorporated into the research themes below, closely identified with individual site specific evidence and in order to support future synthetic studies in the region.

Palaeolithic, Mesolithic and Neolithic

The sole requirement for these periods was to provide a permanent archival record of worked flint artefacts and stone tools. There were no research objectives immediately relevant for any sub-divisions of the Stone Age. An assessment of residual Neolithic worked flint and a polished stone axe is contained upon the accompanying digital content package.

Bronze Age

The requirement for this period was to:

- provide a permanent archival record of archaeological features and artefacts where they were encountered; and to,
- include such evidence within the broader scope of understanding the process, development and character of occupation (HA 2014a).

Late Bronze Age/early Iron Age settlement evidence in Bedfordshire was characterised mainly by association with barrows along the river valleys (Dawson 2007, 59). Field systems remain extremely rare. Disbursed small scale activity was noted across the county, mainly as either enclosed or unenclosed groups of structures and pits, but typically lacking firm corroborative evidence for settlement. Site H presents another example within a small county-wide data set. With little current overall background context, the impetus of work was on data collection and recording.

Iron Age and Roman

The key research themes for these periods were to:

- Advance the development of a chronologically dated middle Iron Age ceramic type series through the application of radiocarbon analysis;
- Seek to understand the morphological development and change of the middle Iron Age settlement discovered at Sites D and G;
- Securely date the pit alignment at Site M and place it within the context of other Iron Age evidence nearby;
- Characterise the nature of the Roman settlements at Site H and Site Q;
- Examine the evidence for crop processing within the context of features found on each archaeological site;
- Compare the results from faunal assemblages with those from contemporary sites within the region;
- Compare Roman cremation burial, pyre traditions and funerary practices within Bedfordshire;
- Produce a chronological sequence for deposition within the cremation cemeteries;
- Securely date pyre debris using radiocarbon analysis and place this in the context of contemporary funerary practices; and to,
- Compare the Roman evidence with other contemporary sites nearby to address the relevance of historically recorded events in the 1st century AD.

A firm chronological framework was lacking for the 1st millennium BC where ceramics, decorated metalwork and scientific dating can be cross compared (Oake *et al.* 2007, 10–11). Typically spot dates and site phase chronologies were based exclusively on the ceramic work of Slowikowski (2005), and there was significant potential to advance this through the application of radiocarbon analysis against any early ceramic groups where diagnostic sherds could be identified that contributed to a wider typology.

Little previous work has been undertaken to advance the understanding of how settlement nucleation and dispersal occurred over this period (Oake *et al.* 2007, 11). Sites excavated close to Watling Street and on the hilltop between the Ouzel Brook and Flit valleys had the potential to contribute to this work both in Bedfordshire and the wider region (Medlycott 2011). They presented an example of agricultural settlement that helped to elucidate the character of an increasingly organised, farming economy. A

particular opportunity was provided to examine the relationship between settlement enclosure and more widely distributed surrounding field systems (Sites J, K and H; Site D, M and G), and also the relationship with the preceding pit alignments (Sites M and P). Any demonstrable relationships between pit alignments and later boundaries were of significance, as few have been securely dated and investigated in detail (Dawson 2007, 64).

The variety of settlement forms increased in the late Iron Age and it was therefore important to characterise the nature of the Roman occupation settlement at Site H and Site Q (*ibid,* 68). There was a need for greater synthesis of evidence to provide an understanding of how Roman rural communities interacted and functioned (Oake *et al.* 2007, 10–2, 73–4; Medlycott 2011, 31–7).

Plant macrofossil analysis for crop processing and the study of faunal assemblages fed into the study of each settlement site, and there are likely to be specific elements that will provide useful examples for comparison with future work in Bedfordshire (Murphy 2007a, 70–71). Pit clusters, if significant to crop processing, are unrecognised in the county for that purpose (Sites D, G and K). The possibility of a placed horse burial at Longmeadow Farm (Site H) added to a similar example noted at Stagsden (Roberts 2000).

In terms of funerary analysis most of the published work to date has focused upon human bone analysis (Oake *et al.* 2007, 12), providing a good range of comparable data (Murphy 2007b, 80–81). The cremation cemetery from Site F and the burials at Site Q both provided an opportunity to take this further in terms of comparing burial traditions and practices across the region. Examples from the work at M1 Junction 12 (Brown 2015c), Harlington (Dawson 2001), Court Drive, Dunstable (Edwards 2010) and Puddlehill (Matthews 1976) were likely to assist locally in this regard, with others drawn from the wider region (Dawson 2007, 76). Work beyond this project is required to focus on ritual elements such as decapitation, burial position, cremation urn fabrics/forms and grave goods where possible and may feed into the topic of sites intended for ritual functions (Dawson 2007, 69).

The relationship between the unurned cremations and the Iron Age and Roman enclosures and trackways at Site H was confirmed using the process of radiocarbon dating, which also was used to date the associated pyre deposits (Fig 1.18). The results of the analysis enabled incorporation of the funerary site into a broader synthesis and understanding of Roman funerary practices at both Site F and Site H. Differences between the sites posed significant questions for the basis of two contemporary burial traditions, differing in the manner of interment that feeds into topics concerning social identity (Oake *et al.* 2007, 13).

Fig 1.18 Cremation urn being wrapped and lifted whole before transport to laboratory for excavation

With the Roman road, Watling Street, in such close proximity to the Scheme, it was appropriate to consider comparison of the Roman settlement at Site H, Site F and Site Q with Puddlehill (Matthews and Warren 1992) and other contemporary sites nearby. At Puddlehill it was suggested that the excavated evidence supported clearance either in the aftermath of the Roman conquest, AD43, or around AD61 during the Boudican revolt when *Verulamium* (St Albans) was sacked (*ibid*, 38–39).

MIDDLE SAXON

The key research themes of this period were to:

- Publish the inhumation cemetery at Site H as a recently excavated example of possible early Christian burial practices; and to,
- Provide comparison with examples excavated previously in support of future research as further middle Saxon funerary sites come to light in the region.

Archaeology of this period is of a character particular to the county, rather than the wider Eastern region, and few recent examples were available (Oake *et al.* 2007, 12). There are few examples of middle Saxon cemeteries in Bedfordshire with which to compare the inhumations from Longmeadow Farm (Site H), with the most recent burials published by Dawson (2004) likely to be pre-Christian. Earlier sites studied in the county include those published by Hagen (1971), Eagles and Evison (1970), Hyslop (1963), Matthews (1962a-b) and Morris (1962a-b). All of these emphasise finds at the expense of contextual detail or spatial recording and rarely provided sufficient information to make detailed

Fig 1.19 Detailed archaeological excavation of the medieval settlement, Site F

observations about the populations or communities they represented (Edgeworth 2007a, 90). Where they were excavated as part of settlements at Harrold (Eagles and Evison 1970) and Puddlehill (Matthews 1962a), they were not published as integrated elements of those sites. The distribution of known cemeteries has been mapped (Wingfield 1995; Bilikowska 1980), but the resultant picture must be a severe underrepresentation of the county's potential for such sites in this important part of south-central Mercia.

Late Saxon and medieval

The key research themes for the late Saxon and medieval periods were to:

- Publish the non-nucleated settlement found at Site F to redress the balance of studies and corpus of information available on similar type sites (Fig 1.19);
- Publish the timber-framed building and associated medieval features at Site Q as an example of finds in close proximity to a moated site;
- Map the extent and orientation of ridge and furrow cultivation, where found, in support of county-wide and regional research;
- Provide analysis of historic maps and aerial photographs at Nuppings Green (Site M1C) to elucidate the extent and character of the settlement; and to,
- Publish specialist analysis of the pottery wasters recovered from the pot bank at Nuppings Green (Site M1C).

Settlement studies in Bedfordshire remain limited in number, but recent years have seen an increase in the quantity of those conducted around the historic core of rural villages and on the edges of existing historic settlements (Oake *et al.* 2007, 14). Most of these studies

Fig 1.20 Archaeologists excavating medieval pot bank deposits with the M1 behind, Site M1C

follow nucleated settlement patterns, although there is a diverse variety of settlement morphology in the county. Isolated village ends, smallholdings and other non-nucleated settlement, such as the occupation at Site F, and moated settlements or sites close to them (i.e. Site Q) were underrepresented and therefore a priority for study. Smaller dispersed settlements, such as the occupation at Nuppings Green (Site M1C; Fig 1:20), were also rarely examined in detail, especially any with an associated craft activity (*ibid*, 106-7; Medlycott 2011, 67–8).

The transition between late Saxon to Norman England is generally accepted to be one of continuity; however, at site level, it is often hard to date closely. St. Neots ware pottery production took place over a long period between 10th–13th centuries and so any work that assists in refining site dating in the county is beneficial (Edgeworth 2007a, 98). Dating in the post-Conquest period is greatly aided by the diversity of local pottery manufactories in the surrounding counties.

Human remains are generally few and rural burials of medieval date, if corroborated by scientific dating techniques, would be a valuable addition to the dearth of information (Murphy 2007c, 112).

The open fields around the medieval villages, comprising ridge and furrow cultivation, survive poorly across the county but at one time characterised the nature of local farming practices in keeping with Northamptonshire and Buckinghamshire. Their origins and development are poorly understood and so mapping the locations and orientation of cultivation evidence is of value at a county-wide and regional scale (Oake *et al*. 2007, 14).

POST-MEDIEVAL AND MODERN

The sole requirement for this period was to:

- Provide a permanent archival record of post-medieval and modern landscape features, contained within the accompanying digital content package.

Topics of research for both Bedfordshire and the East of England focus on fortifications, parks and gardens, and industrialisation (Oake *et al.* 2007; Medlycott 2011). The rural landscape receives little priority where it is not associated with one of these key themes, or where it is not part of a continuity of landscape from the medieval period (Edgeworth 2007b, 119). In this vein there were no priorities for historic hedgerows, field systems created through Parliamentary Acts of Enclosure, post-medieval trackways, agricultural landscape features (Sites E and S), or for modern architectural structures such as motorway bridges, beyond their recognition and permanent archival record.

ORGANISATION OF THIS REPORT

Chapters 2 to 8 of this report present the excavated evidence for sites both on the M1 Junction 12 Improvement Scheme and the A5–M1 link road. Each chapter is ordered chronologically, so that contemporary evidence is presented together by site. The chronology loosely follows conventionally recognised eras within British archaeology. The phasing of these is based on a combination of spot dates from artefact assessment using pottery and registered finds, radiocarbon determinations and stratigraphic relationships where they were relevant.

Each individual chapter contains a narrative of the excavated evidence, specialist studies on finds and environmental material and an end of chapter discussion that includes a summary of the relevant background historical data. General site interpretations are presented in the discussion and contain the observations of site archaeologists and specialists, distilled separately from the narrative of archaeological features and finds reports. Each chapter ends with a concluding statement addressing the contribution towards published research themes with recommendations for the future. It was the intention to present a collection of short essays, wherein more thematic discussions could draw in a wider synthesis of regional evidence, but this lies beyond the scope and time constraints of this report.

Evidence collected from M1 Junction 12 and from the A5–M1 link road is presented within individual chapters within the broader chronology. For the A5–M1 sites certain work areas with different site codes are amalgamated where they are deemed to be part of the same archaeological site (i.e. Sites D and G). Sites of contemporary or topical relevance are presented independently, but within the same chapter, such as the funerary evidence and sites within the valley of the Ouzel Brook that are relevant to middle Iron Age farming practices. Medieval sites at Chalton and Thorn are presented together based on their broadly contemporary occupation, but evidence at Nuppings Green is kept separate in order to maintain the distinction between projects.

The letter codes attached to the archive are retained for reference purposes; the use of common place names has been avoided where possible to prevent confusion. All previous site reference names and numbers have been dropped to maintain consistency. In the case of the M1 Junction 12, the sites which were formerly referred to as Sites A–C are prefixed with M1. This is so that Site M1A will not be confused with the trial trench evaluation stage of the A5–M1 link road, Site M1B will not be confused with the general watching brief on the UKPN cable replacement, and Site M1C will not be confused with the A5–M1 link road general watching brief on drainage ditches and slip roads. The common name of Nuppings Green is only used in a medieval or post-medieval context.

Following on from the present introductory chapter there are a further seven chapters that describe the archaeological evidence. Chapter 2 presents evidence from the middle–late Bronze Age. This same chapter also addresses the largely undated pit alignments on the flood plain.

Chapter 3 presents the study of the landscape and looks at the evidence for the emergence of farming within the valley of the Ouzel Brook, covering a broad period between the 5th–2nd centuries BC. The chapter begins with early Iron Age pit clusters before advancing to the middle Iron Age settlement up until its abandonment in the late Iron Age. The chapter also incorporates the earlier-middle Iron Age pit cluster and storage pits at Site K.

The cremation cemetery and boundary ditches that began in the late Iron Age from M1 Junction 12 are presented in chapter 4. The larger portion of this chapter focuses upon the Roman cemetery evidence from Site M1A. A smaller section within the chapter includes a brief presentation of the non-funerary evidence, restricted mainly to the changing boundaries over the period of cemetery use. The theme of cremation burial then leads towards chapter 5, wherein the funerary evidence is presented from the A5–M1 link road in its detail.

After the detailed burial information is provided the dialogue of chapter 6 returns to the study of the contemporary landscape in the late Iron Age/Roman transitional period, which looks at trackways and enclosures nearby. The crossover enables the sites where there is a distinct continuity in occupation from the late Iron Age into the early Roman period to be separated from those sites that are exclusively pre-Roman.

Chapter 7 advances the chronological framework with an initial presentation of Saxon inhumations and then pursues the origins of settlement at Site F, starting with the scattered evidence for early/middle Saxon activity and leading into the medieval settlement evidence. Contemporary with 12th-century occupation at Site F, but geographically removed, was the medieval occupation at Site Q, which is presented in the same chapter. The last of the medieval site narratives is from the M1 Junction 12 improvements, in chapter 8, and presents the late medieval potter's waste dump at Nuppings Green and the subsequent post-medieval occupation of the site.

Since each individual chapter contains within it the specialist studies associated with the archaeology of specific sites, some of the detail has been distilled into the accompanying digital content, such as methodologies. All specialist datasets from both the Stage 1 assessment and Stage 2 analysis are also held upon the accompanying digital content package, together with smaller reports that found no home within the main narrative of archaeological sites. This is particularly the case for Neolithic flints, a polished stone axe, the topographic surveys of post-medieval features such as hedgerows and bridle paths, and the building recording of the 1959 motorway overbridges. Copies of all relevant reports are included, together with the background documentation supporting the project. An inventory of the data sets and reports held upon the accompanying digital content package is contained within this volume.

Summary of chronology within this report

Table 1.2 summarises the evidence by grouping the sites into a chronology. The periods represented are commonly accepted eras known within British archaeology. The positioning of date ranges is accorded by the specialist contributions through spot dating pottery and other finds from these sites, fitted into broadly published conventions. The main significant archaeological features and sites are presented within the relevant chapters, whilst minor sites and finds of low significance are not included, but their assessment is held upon the accompanying digital content package.

Textual and graphical conventions

The basic unit of reference throughout the archive that supports this report is the context number. This is a unique number given to each archaeological event on site whether it was a layer, a pit cut, fill material, a wall, a surface, a recut or any other archaeological feature or deposit. Modern intrusions and natural features were generally excluded. Context numbers in the text are shown thus: Q[100], denoting Site Q, context [100]. The site code prefix is included where ambiguity may exist with the reader. This may occur where, for the purposes of compiling an orderly site archive without confusion in the field, the use of site codes permitted each site to run on an independent set of registers. This means that each site has its own context index attached to a letter, overriding the occurrence of duplicate numbers.

This report employs the use of group numbers for features or land-use entities where evidence has a direct physical, spatial and/or chronological association. Terms that may employ group numbers and are considered land-use entities include, and are not limited to; buildings, structures, wells, enclosures, pit clusters, trackways, funerary groups and similar themed complex site features. Whilst the components of these will be referred to by context number, usually the cut, or perhaps specifically a fill or layer, the group numbers will employ the site code letter followed by a number for the site feature. This number will not appear in brackets. These numbers have been generated to support the dissemination of information within this report, they are generally sequential within their respective chapters and do not relate to any previous documentation.

Numbers given to individual registered finds within the site archive are most commonly objects sent for X-ray and artefacts with special conservation considerations

Table 1.2: Summary of archaeological discoveries in chronological order

Periods	Relevant evidence	Relevant sites
late Neolithic, Bronze Age and early Iron Age (*c.*4000-450BC)	prehistoric worked flint polished stone axe (Site G) finds prehistoric pits pit alignments palaeochannel pit clusters	residual on various sites Site G Site C Site H Site M Site P Site L Sites D and G Site K
middle Iron Age (*c.*450-100BC)	farming settlement field systems dispersed roundhouses and pits storage pits and nearby boundaries	Site G Sites D, G, M Sites G Sites K and N
late Iron Age (100BC-AD43)	ditches draining into a marshland trackways and enclosures boundary ditches and enclosures isolated cremation burials Period 1 of cremation cemetery stone cairn and funerary pyre trackways and enclosures urned cremation cemetery (initial) funerary enclosure unurned cremation cemetery and pyres	Site G Site J Site H Site Q Site Q Site M1A Site M1B Site H Site F Site H Site H
Roman (AD43-300)	boundary ditches enclosure, boundary ditches and burials funerary enclosure unurned cremation cemetery and pyres urned cremation cemetery (main) Periods 2-4 of cremation cemetery trackways and enclosures	Site P M1 Junction 12 (all sites) Site Q Site H Site H Site F Site M1A Site H
late Roman (AD300-450)	charnel pit and scattered human bone	Site F
Anglo-Saxon (AD450-850)	inhumation cemetery isolated pits and pottery sherds	Site H Site F
late Saxon (AD850-1066)	isolated pit pottery sherds, comb and loomweights residual pottery	Site F Site F Site Q
Saxo-Norman (AD1066-1150)	enclosure, pits and possible buildings boundary ditch and residual pottery	Site F Site Q
medieval (AD1150-1540)	buildings and enclosures timber frame building and boundaries pottery waster midden boundary ditch	Site F Site Q Site M1C Site M1B
post-medieval and industrial (AD1540-1900)	building remains bridle path historic hedgerow historic hedgerow historic hedgerow embankment field boundary ditches material dumped beside a trackway	Site M1C Site E NGR TL 00500 25320 NGR TL 01300 25660 NGR TL 01883 29738 Site S Sites G and Q Site F

or that are of a delicate nature with intrinsic artefactual interest. Such finds have been given catalogue numbers with a prefix denoting their category. The number refers to the catalogue, derived from the field register with additions following Stage 2 analysis and reporting. Note that this means that where there are two apparent duplicates, they are from different sites. The prefix is by material type, and may have a letter outside of the bracket for the site code, if this is not obvious through context. For these reasons the numeric series does not run sequentially through the report. Registered finds are presented thus:

<A1> antler or worked bone artefact no. 1;
<C1> ceramic artefact no. 1 (spindle whorls, loomweights etc.)
<CN1> coin no.1;
<Cu1> copper-alloy artefact no. 1 (excluding coins);
<DS1> decorated samian artefact no. 1;
<Fe1> iron artefact no. 1;
<G1> glass artefact no. 1;
<P1> pottery artefact no. 1 (specific sherds, vessels and funerary urns);
<Pb1> lead artefact no. 1;
<S1> stone artefact no. 1;
<SS1> samian stamp no. 1.

An important distinction is drawn between early/ middle or middle and late, and earlier-middle or later-middle. The former is intended to mean either/and/ or, whilst the latter is a sub-division of the period in question. This approach is used throughout but particularly where the work breaks down the existing knowledge of middle Iron Age pottery into forms and decoration of distinctly earlier or later date within the middle Iron Age.

This publication employs recognised fabric codes for prehistoric pottery, developed by specialists working in the Bedfordshire region (Wells 2008b).

Roman fabrics from the A5–M1 link road follow the Warwick and Oxford system (Booth 2000) and fabric series in Evans *et al.* (2017). Roman fabrics at M1 Junction 12 draw on published references for Bedfordshire (Slowikowski 2001; 2004; 2005), and are coded following the National Roman fabric reference collection (Tomber and Dore 1998).

All of the medieval pottery wares are recorded using the conventions of the Bedfordshire County Type Series (Baker and Hassall 1979). Associated with these are alphanumeric codes prefixed "F" that relate to the medieval pottery database and tables. An explanation of these codes is provided early in the text of the relevant finds report.

Ceramic building materials are described and classified by type rather than being allotted to a fabric type series, as no such published coding system exists for Bedfordshire.

The following abbreviations are used within the text and in tables or catalogue entries: aOD (above Ordnance Datum); BE (base equivalent); CBC (Central Bedfordshire Council); CCJV (Costain–Carillion Joint Venture); CP (ceramic phase); EMS (early to middle Saxon); EVE (estimated vessel equivalent); FADD (further archaeological design document); HER (Historic Environment Record); LS (late Saxon); MOLA (Museum of London Archaeology); MNI (minimum number of individuals); MNR (minimum number of rims); MNV (minimum number of vessels); MSW (mean sherd weight); MPR (mean percentage of rims); NA (Northamptonshire Archaeology); NGR (national grid reference); OS (Ordnance Survey); RE (rim equivalent); Sh (sherd count); SN (Saxo-Norman); sqm (square metres); UKPN (United Kingdom Power Network); UPD (updated project design); WSI (written scheme of investigation); Wt (Weight, usually given in grams).

The graphical conventions used in the site plans and illustration for this report are shown in Fig 1.21.

Arrangements for the archives

The archives for each of the projects have been offered to Luton Culture, upon completion of the publication (Accession no. LTNMG 2010.67 for M1 Junction 12, and Entry no. LTNMG 1093 for the A5–M1 link road).

The archives will be retained at the MOLA offices in Northampton while the museum is closed for refurbishment. OASIS forms were completed for the project upon the issue of each grey literature report as part of standard company procedure and each report will be submitted to the Archaeological Data Service (ADS). There is no requirement for the archive to be digitised and the National Archaeological Record is no longer receiving microfilm copies of site records. The archive will be prepared according to professional standards and guidelines, together with the specific requirements for Luton Culture (Walker 1990; MGC 1992; SMA 1993; Watkinson and Neal 2001; Duncan 2011; CIfA 2014e-f; LC 2013).

The archive comprises all written, drawn and photographic records, and all material finds and processed sample residues recovered from the excavation. The site archive is accompanied by the research archive, which comprises the text, tabulated data, the original drawings and all other records generated in the analysis of the site archive. The archive is fully catalogued and prepared for deposition. Copies of the project background information: WSIs, FADDs, evaluation reports, watching brief reports, building recording reports, topographic surveys, assessments and UPDs are included, along with a copy of the present publication. Any material requiring special curation was handled under the recognised guidelines prior to deposition (Watkinson and Neal 2001).

COMMUNITY ENGAGEMENT AND PUBLIC DISSEMINATION

The archaeological remains discovered during construction of both the M1 Junction 12 and the A5–M1 link road were reviewed, assessed, analysed and reported upon following the relevant archaeological guidance provided in the *Design Manual for Roads and Bridges* (HA 2001). Dissemination of the information was conducted for both schemes together, where possible. MOLA produced 500 copies of a popular brochure for distribution including 120 copies that were lodged with the local authority. A public lecture presented the findings of the excavations along the road scheme to the Council for British Archaeology South Midlands conference in 2017 where attendees received a copy of the brochure. Subsequent requests by local societies for talks and presentations were honoured by MOLA. The present volume represents the Stage 2 report upon the post-excavation analysis and has been compiled to meet a more academic audience, in keeping with other comparable road schemes delivered by Highways England. This volume is accompanied by a bank of digital content, hosted by Archaeopress, and accessed by QR matrix barcode. This digital content package comprises project documentation and archaeological data, together with minor elements of the archaeological recording that were excluded from this publication (i.e. detailed specialist data sets, unstratified finds reports, topographic surveys of post-medieval features, building recording of motorway overbridges etc.).

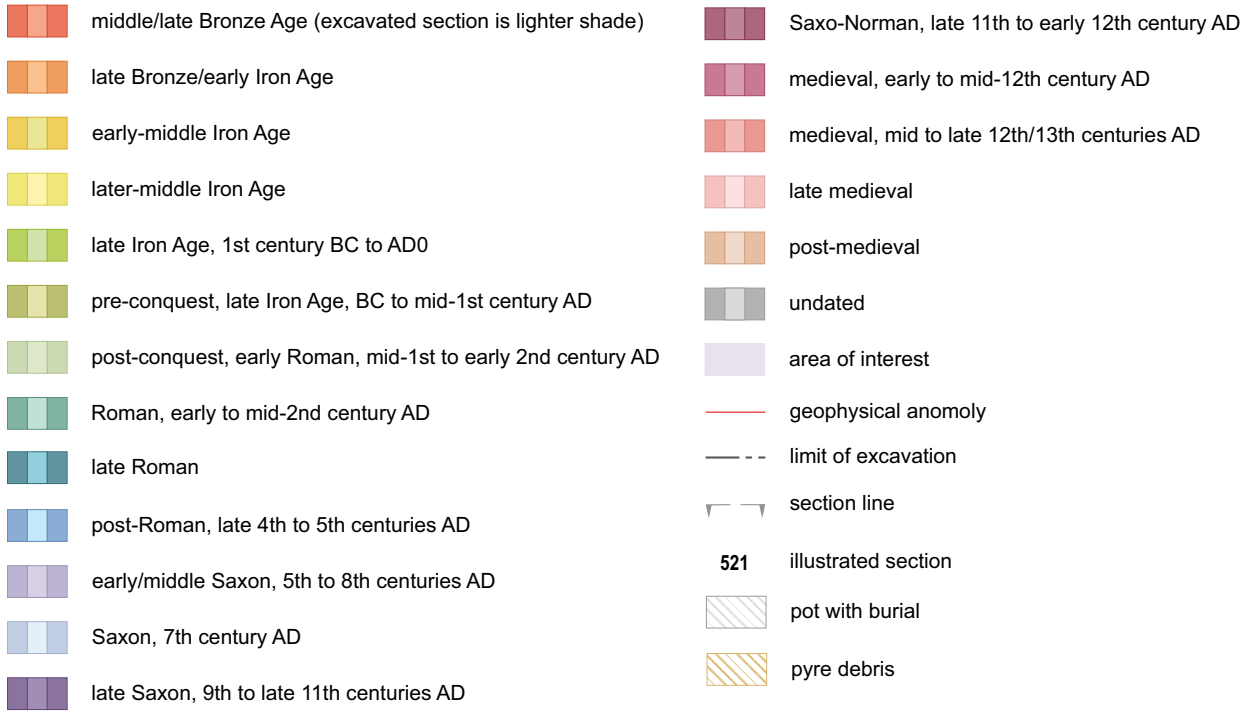


Fig 1.21 Graphical conventions used in this report

Chapter 2

MIDDLE–LATE BRONZE AGE PITS AND UNDATED PIT ALIGNMENTS

The majority of middle–late Bronze Age activity was focused upon the hilltop at the east end of the scheme, near Chalton, through which the M1 motorway cutting passes (Fig 2.1). Isolated features were identified elsewhere. Most features were dated by the presence of coarse flint-tempered pottery and selected samples were additionally subject to radiocarbon analysis. The motorway bisects the hill between a concentration of pits and postholes at Site H, beneath the east dumbbell roundabout of M1 Junction 11a, and a smaller group discovered during the general archaeological watching brief on the west dumbbell roundabout (Site C). A pit below one of the late Iron Age ditches at Site Q appeared to have been a well, and seeds from this were the subject of radiocarbon analysis. Another possible middle–late Bronze Age well was investigated at Site M, which was an isolated pit separate from the nearby pit alignment. Two pits from Sites D and G produced exclusively flint-tempered pottery from otherwise completely Iron Age settlement sites. Elsewhere small assemblages of residual Bronze Age pottery sherds were found, including Site F.

Also included in this chapter are the largely undated pit alignments found to the south of Thorn Road prior to construction of the balancing pond (Site M) and at Site P. The former produced a single undiagnostic plain body sherd of middle–late Bronze Age pottery, and a charred twig returned an early Bronze Age date from radiocarbon analysis. Site P on the other hand could not be dated closely owing to both a lack of finds from secure contexts and the overall impact of root intrusions from a modern hedgerow.

Fig 2.1 Locations of middle–late Bronze Age sites and undated pit alignments

MIDDLE-LATE BRONZE AGE PITS IN THE UPPER VALLEY

SUMMARY

These sites may have formed a part of a broader swathe of archaeological activity located on the hilltop at the head of the Ouzel Brook valley. Archaeological features were not clearly discernible from geophysical survey data (Simmonds and Fisher 2008, figs 15–16). Trial trench evaluations identified features of late Iron Age and Roman date (Burrow 2008b); however, the middle–late Bronze Age pits were not identified on the east side of the M1 motorway, at Site H, until the subsequent detailed excavations set out to mitigate the site. Similarly, geophysical survey and trial trench evaluation to the west suggested a few widely dispersed boundary ditches might relate to field systems. Late Bronze Age/early Iron Age pits were a chance find of the general watching brief at Site C, which was originally monitored in the event that the outlying middle Iron Age boundary ditches may have been more extensive than indicated by geophysical surveys.

The pit groups were set *c.*200–220m apart, separated by the M1 motorway cutting. Pits and postholes were tightly grouped together on the plateau of the hilltop. Within the clusters at Site H, several post arrangements in two main concentrations were discerned within the wider distribution of scattered features; a central cluster and another smaller cluster to the north-east.

The main central cluster of features at Site H was sufficiently remote from other periods of activity for there to be some confidence of their likely contemporaneity. The features occupied a roughly oval area of *c.*700sqm, and after closer consideration it became apparent that the mass of postholes comprised small groups of four or six postholes with individual postholes inserted around. The more obvious groups were arranged in squares or rectangles with postholes 1.5–2.0m apart. There was also an overall north-east to south-west alignment with some surprisingly regular rows, but the rectangular groups did not seem to share a common alignment. The pottery was recovered from two main areas, broadly distributed at either end of the feature group. Two charcoal-rich pits were chosen for radiocarbon analysis and returned differing dates towards the end of the middle Bronze Age, and early in the late Bronze Age, suggesting that occupation was sporadic and discontinuous.

A smaller scatter on the north-east side of the hilltop included two possible posthole arrangements. There were 29 postholes in total; a four-post group, a six-post group, a small cluster of six postholes, and the remainder laid out in an irregularly scattered swathe over a distance of 14m.

The smaller cluster of postholes on the north-east side of Site H was largely undated, although three contained middle–late Bronze Age pottery. Two arrangements of six and four postholes could be discerned, together with a row extending northwards.

The main pottery groups at Site H were located in pits scattered over a much wider area than the posthole groups and in some cases were entirely isolated from contemporary features.

The pit group slightly further to the west at Site C produced coarse flint-tempered pottery of slightly later date than the pottery from Site H (see Section 2.3 below). A single isolated group of seven pits was found. These pits had no formal arrangement and their seemingly random distribution also suggested independent interventions. Two pits selected for radiocarbon analysis provided wide-ranging dates across both the middle–late Bronze Age and late Bronze Age/early Iron Age.

Unfortunately, given the intensity of earthmoving in this location, other features nearby were difficult to identify. A general watching brief on the National Grid utility diversions (Site N), immediately to the south of Site C (Fig 2.1), identified ditches and a single sherd of undiagnostic Iron Age pottery, but no further evidence of pit groups.

MIDDLE–LATE BRONZE AGE PITS AT SITE H

The site is the highest point of the A5–M1 link road and lies immediately east of the source of the Ouzel Brook upon the hilltop at the valley watershed (Fig 2.1). Geological variations are considerable, varying between chalk with periglacial clasts and ice wedges, chalky clay till, and orange-brown gravelly clay. The area of excavation was fairly level and lay upon a plateau, roughly central to the hilltop. The Flit valley lies to the north. On the north-east, east, south-east and south is the valley of the River Lea and to the south-west lies the Ouzel Brook. The plateau joins the valley ridge to the west. The geology in the area of these prehistoric pits is red or orange-brown silty clay overlying grey-white chalky clay.

There were 115 probable prehistoric pits and postholes at Site H, largely undisturbed by other periods of activity. The main distribution comprised 88 features, within a roughly oval area of *c.*700sqm in the northern edge of the east dumbbell roundabout site. The scatter was spread longitudinally with some of the smaller groups within it indicating possible structures. Where pottery was found, it was of middle–late Bronze Age date, and confirmed the date of 33 features. The remainder of the features are dated to the same period by association.

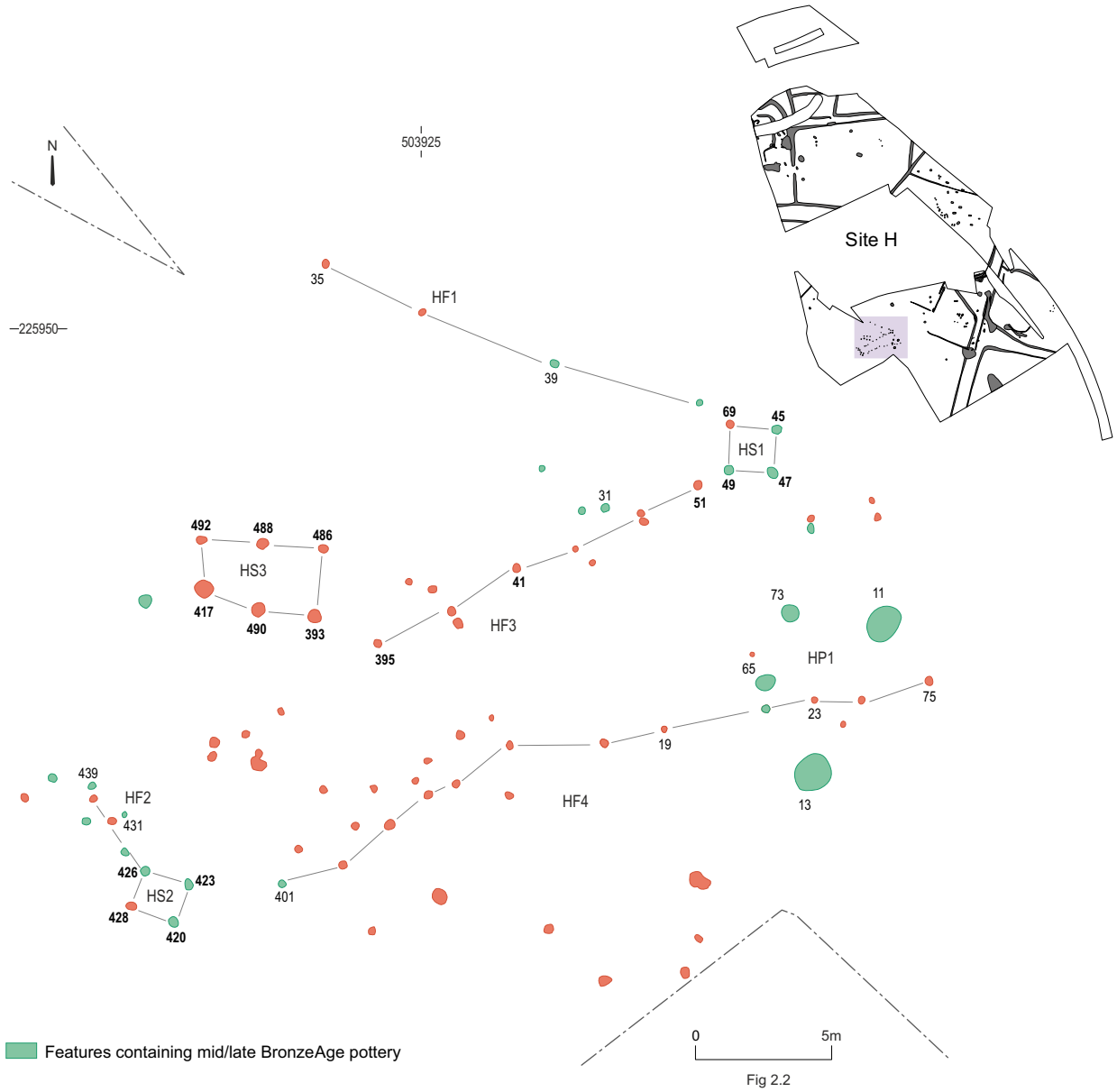


Fig 2.2 Main distribution of middle–late Bronze Age pits and postholes, Site H

Postholes represented the majority of features. Three structural groups were visible; two groups of four postholes, HS1 and HS2, were arranged in squares, and a group of six postholes were laid out in a rectangular pattern, HS3 (Fig 2.2). Four of the postholes had post-pipes and lay within a single four-post structure, HS2. Lines of postholes extended from both four-post structures that perhaps indicated the use of fencing. Four pits were located close together on the eastern periphery of the scatter.

Further to the north-east there lay another smaller cluster of 29 features, mainly postholes, three of which contained middle–late Bronze Age pottery. The distribution suggested potential for a four-post structure, HS4, and a six-post structure, HS5, with a row of posts extending to the north, HF5 (Fig 2.6). A tight cluster of six postholes lay to their north, HP2.

In addition to these Bronze Age feature concentrations there were also isolated pits that were more widely dispersed across the hilltop, many of which produced key assemblages of pottery (Fig 2.10).

THE FORM AND CHARACTER OF THE POSTHOLES

Most postholes were similar in their dimensions with some small variations in size and form. All of the postholes were circular, oval or sub-circular in plan. Most profiles were U-shaped, with steep to near vertical sides, and a flat or slightly rounded base. Five had steep sides and pointed V-shaped bases, suggesting a sharpened stake had been driven into the ground.

Nine post-pits were 0.36–0.71m wide, forming structures HS2 and HS3. Dimensions varied in the

range of 0.15–0.35m wide and 0.10–0.26m deep. Eleven examples were badly truncated to less than 0.10m deep.

The majority of postholes contained a fill that was fairly consistent across the area, comprising firm mid/dark grey-brown to black silty clay with flecks of charcoal, and occasional stone, flint and chalk. The dark colour derived from wood charcoal. Pits containing the greatest concentration of charcoal were chosen for radiocarbon dating. It is unknown whether the posts were removed and reused, left to decay or burnt *in situ*.

POSSIBLE STRUCTURES

Within the main cluster of features there were two groups of four postholes, HS1 and HS2, and a six-post group, HS3. This latter group could not be dated with any certainty. Other permutations were less distinct and it would be easy to over-interpret their arrangement.

STRUCTURE HS1

Four postholes were arranged in a rough square, 1.5m by 1.5m in plan, aligned north to south (Fig 2.2). The postholes were consistent in form as a group, 0.30–0.35m in diameter, and were all U-shaped in profile, up to 0.18m deep (Fig 2.3). The north-east and south-western postholes contained pottery.

STRUCTURE HS2

Another four-post structure was located at the opposite side of the overall cluster (Fig 2.2). The structure had a roughly square layout, 1.5m by 1.5m in plan, but rotated slightly clockwise from the cardinal directions. Post-pits in this group were generally larger than those in HS1, being 0.36–0.48m wide by 0.26–0.31m deep, U-shaped in profile, and with flat bases (Fig 2.3). The east corner post-pit was particularly large, being 0.71m by 0.56m in plan and 0.36m deep. The fills had a slight variation in content where firm mid-orange brown silty clay from their excavation had been replaced as packing around the posts. Removal or rotting of the posts had created post-pipes. The west corner had the smallest of the features and no post-pipe.

The post-pipes were circular in plan and were characterised by near vertical sides and flat bases (Fig 2.3). It can be estimated that the timber posts they held were probably of a more consistent diameter than the pits that contained them, with timbers likely to have been *c.*0.28–0.30m wide, with one much thicker at 0.40m diameter. The timber posts were packed against the outer edges of their respective pits, but no stone packing was used. Each post-pipe contained dark grey-brown to black silty clay, comparable to the wider scatter and all three contained pottery.

STRUCTURE HS3

Structure HS3 comprised a rectangular arrangement formed of two rows of three regularly-spaced circular postholes, set *c.*2.10m apart, which covered an area of 4.50m by 2.40m. This was the largest recorded structural arrangement and lay *c.*10m to the south-west of structure HS1 and *c.*15m to the north-east of structure HS2. The structure had an approximate east–west orientation, similar to structure HS1 (Fig 2.4). Postholes at the west end of the structure were positioned slightly off line, perhaps indicating an extension of a pre-existing four-post structure. Postholes and post-pits varied in diameter (0.16–0.70m), but were generally consistent in profile with near vertical sides and flat or rounded bases, up to 0.22m deep (Fig 2.5). The fills were lighter and more friable than elsewhere, tending towards mid grey-brown clay silt with occasional stones and charcoal flecks. None of the postholes produced finds, and because of the difference in the fills it is difficult to associate this feature with the rest of the Bronze Age structures with any certainty. Nevertheless it does have a similar alignment to buildings HS1 and HS2 and appears to correlate with the end of fenceline HF3.

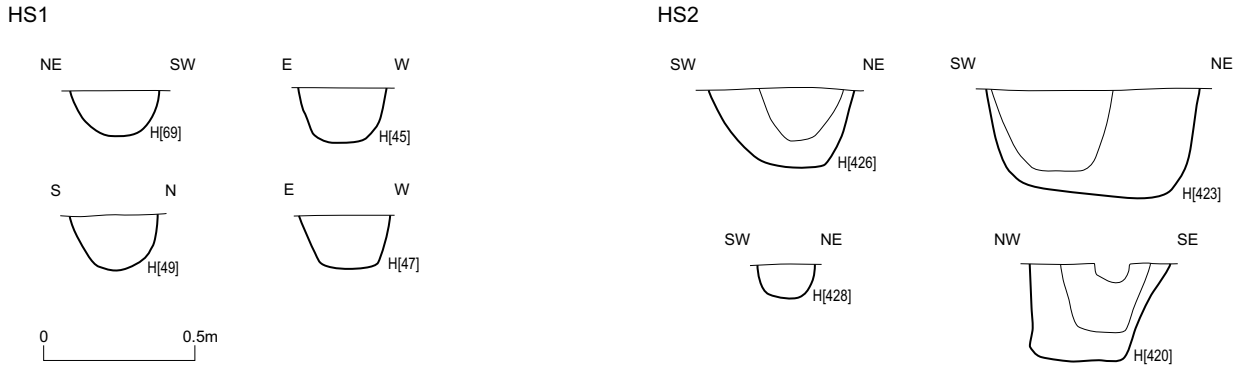


Fig 2.3 Postholes in four-post groups, HS1 and HS2

Fig 2.4 Six-post group, HS3, looking south-east

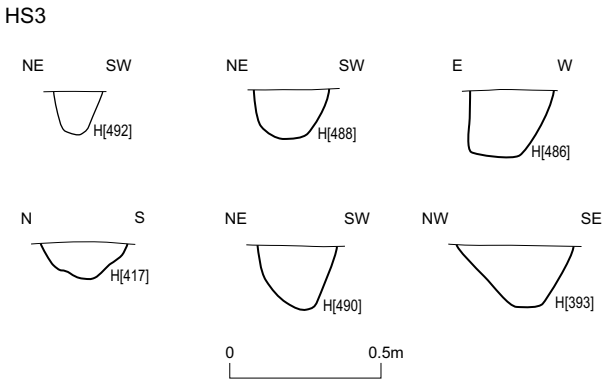


Fig 2.5 Postholes in six-post group, HS3

STRUCTURE HS4

This four-post group lay at the north-east edge of the hilltop, close to structure HS5 (Fig 2.6). The group lay in a slightly rhomboid arrangement, 1.6m long by 0.8m wide. The oval postholes were each 0.24–0.34m across and no more than 0.12m deep (Fig 2.7) and were filled with grey-brown silty clay. None of these features produced finds.

STRUCTURE HS5

This six-post group was positioned slightly north-west of structure HS4 (Fig 2.6). It had a square arrangement, 2.0m by 2.0m, formed by two rows of three regularly-spaced circular postholes, *c.*1.0m apart, and aligned north–south. Two additional postholes associated with the group on the north side did not correspond with the arrangement. The postholes were 0.20–0.26m in diameter and up to 0.09m deep. Profiles were difficult to determine clearly (Fig 2.8). The fills were mid/dark grey-brown silty clay with charcoal flecks. Pottery was recovered from post-pit H[693], which lay eccentric within the arrangement.

POSSIBLE FENCE LINES

Five possible fence lines were identified based upon the alignment pattern of individual postholes. These appear to have divided the area into a number of plots probably associated with the smaller structures (Figs 2.2 and 2.6).

ROW HF1

Four postholes extended west by north-west from HS1 (Fig 2.2). This line lay at the northern limit of the wider cluster. Postholes were 4.3–5.7m apart, and the row had a total length of 16m. They were all similar, 0.25–0.30m wide and U-shaped, up to 0.18m deep. One was badly truncated.

Whilst the fills were consistent with the dark brown-black silty clay of the wider group, the two postholes closest to HS1 also produced pottery and a residual flint microlith.

ROW HF2

There were three postholes that extended north-west from the corner post of HS2 (Fig 2.2). The first posthole in the row also had a post-pipe similar to those recorded for HS2. This posthole was considerably smaller than those in the four-post structure, although the profile and fill constituents were comparable. This row was only 3.0m long with the postholes set at 1.0m intervals from the corner of the structure. The postholes conformed in size, shape and fill to the wider cluster and one produced pottery.

ROW HF3

Six postholes extended south-west from HS1 towards the north-west end of row HF2. Two of these postholes were arranged with double settings, possibly indicative of replacement (Fig 2.2). The row was continuous over level ground for 12m. Postholes were set at 2.3–2.8m intervals between structures HS1 and HS3. The

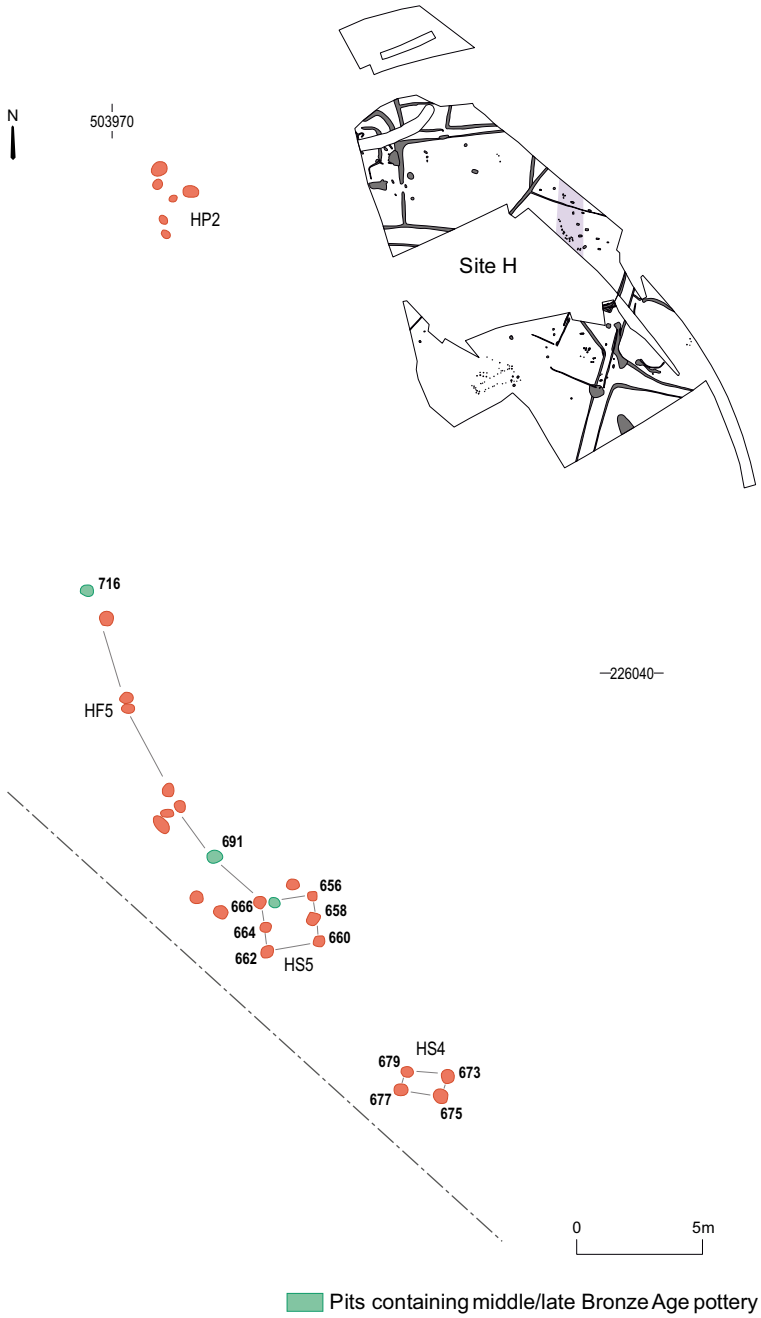


Fig 2.6 Smaller middle–late Bronze Age posthole groups, Site H

postholes were fairly consistent within the group and conformed in size, shape and fill to the wider cluster, although none of them produced pottery (Fig 2.9).

ROW HF4

Twelve postholes extended north-east from HS2 over level ground for a distance of 28m (Fig 2.2). The row had three wider gaps where posts appeared to be missing from the alignment (spacing was at 1.8–2.3m intervals). The alignment also passed through a smaller concentration of other postholes where no formal arrangement could be discerned, except for a general rectangular distribution. The row conformed in size, shape and fill to the wider cluster (Fig 2.9), although only two of the postholes produced pottery.

ROW HF5

Eleven postholes on the north side of HS5 extended over level ground for a distance of 14m (Fig 2.6). Seven of these postholes formed a row, mainly grouped in pairs and four additional posts lay outside of this alignment. The spacing was at 2.4–3.2m intervals. As a group the postholes differed little in size or shape, but were not as well preserved as those in the main central cluster to the south (Fig 2.9). Pottery was recovered from postholes at either end of the row.

CLUSTERED POSTHOLES, HP2

A group of six postholes lay to the north of row HF5 in no particular arrangement

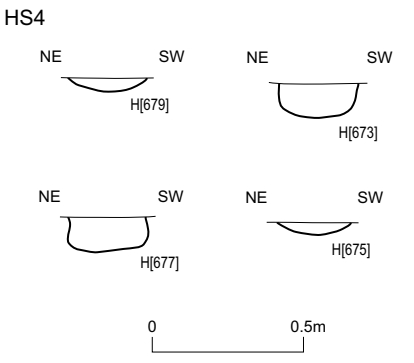


Fig 2.7 Postholes in four-post group, HS4

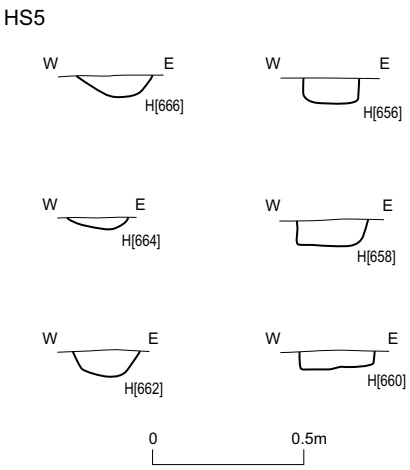


Fig 2.8 Postholes in six-post group, HS5

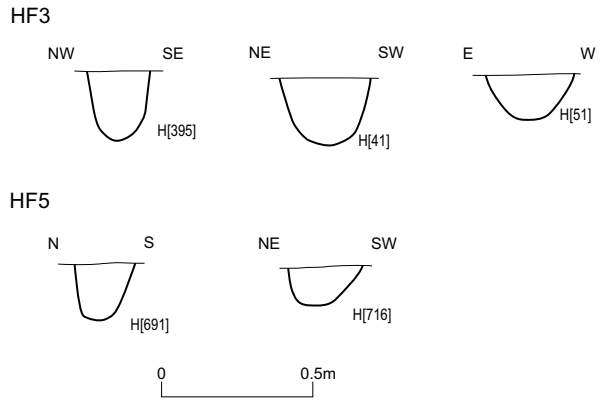


Fig 2.9 Selected postholes rows, HF3 and HF5

(Fig 2.6). These postholes were all sub-circular, in the range of 0.21–0.47m diameter and 0.07–0.09m deep. Profiles were difficult to discern because of the shallow depth. Fills were generally dark brown sandy clay. None of them produced finds.

LARGE PITS AND PITS PACKED WITH BURNT STONE, HP1

Four pits lay on the eastern periphery of the cluster and at the east end of HF4 (Fig 2.2). Within this group (HP1) there were two large fire pits that were *c.*5.0m apart, and two smaller pits that were packed with burnt stone cobbles, around *c.*3.0m to the west.

LARGE PITS

The larger pits were both oval and of similar size in plan, *c.*1.5m by 0.90m. Pit H[11] had a broad rounded bowl-shaped profile with gently sloping sides and flat base, 0.22m deep. By contrast the other pit, H[13], had steep, near vertical sides and rapid break of slope onto a broad flat base, 0.24m deep. Scorching of the natural was suggested by the mild pink discoloration of the natural clay; however, since this was faint and inconsistent it was likely to be from radiated heat, rather than the deep hard baked red-brown observed through direct burning.

Both pits contained similar matching fills of firm dark brown to black silty clay that was rich in charcoal, with occasional pebble flint and burnt stones. These pits produced the main assemblage of middle–late Bronze Age pottery. A flint microlith was also recovered from pit H[11] and a small quantity of animal bone from pit H[13]. Although the burnt material included a few charred seeds, including barley, wheat and grassland herbs, the bulk of material was charcoal. One hazelnut shell was also present.

Charcoal submitted for radiocarbon dating from the pits returned dates that were unlikely to be contemporary. Pit H[11] was dated towards the end of the middle Bronze Age, 1365–1360/1290–1120 cal BC (95% confidence, 2990±30BP, Beta-446418), and pit H[13] was dated early in the late Bronze Age, 1120–970/955–940 cal BC (95% confidence, 2870±30BP, Beta-446419). This suggests the location was used periodically over an extended period of time with occupation that was sporadic and discontinuous.

PITS PACKED WITH BURNT STONE

The two smaller pits were both sub-circular, 0.30–0.45m in diameter, and of similar depth to the fire pits. One had a fairly regular bowl-shaped form, whilst the other had uneven sides that had been roughed out. Neither of the pits had any scorching around the edges but both were heavily packed with burnt stone cobbles, rammed into the firm mid grey-brown clay.

DISPERSED ISOLATED PITS

There were five pits, dispersed around the main central cluster of postholes as satellite features, each of which produced key pottery assemblages (Fig 2.10). Relatively few pottery groups were recovered from the postholes.

These pits, H[355, 382, 403, 482, 484], had no uniformity; each pit was a slightly different size or shape, and the profiles varied considerable between the broad shallow flat bottom of pit H[355] and the smaller narrow steep-sided uneven base of pit H[403]. Pit H[355] was the largest (1.73m by 1.50m in plan), whilst the others were much smaller. At the surface the pits usually demonstrated a darker area with less distinct variations or mottling around the edges. None of the pits exhibited any scorching at the base. The wide variations in form may also be linked to the variable nature of the underlying geology, making the edges harder to determine.

In most cases the pit fills tended to be firm or friable dark brown or grey-brown sandy clay loam at the surface, merging towards dark orange-brown sandy clay with charcoal flecks. In some cases this became lighter or orange-brown where the natural interface was indistinct. The darker fills produced a higher frequency of pottery. Assessment of plant macrofossils showed that charred seeds were not present in sufficient quantities to be meaningful (Fryer 2016). However the majority of burnt material derived from wood charcoal, which was not quantified to species. Whilst the uneven shape of some pits might be the product of ancient root hollows or burnt-out tree stumps, this was not a research priority, and species analysis to demonstrate that each pit might contain only a single taxa was not undertaken.

Fig 2.10 Locations of dispersed middle–late Bronze Age pits, Site H

DISTRIBUTION OF POTTERY

Middle–late Bronze Age pottery was recovered from 22 postholes and seven pits, all of which are considered to be secure contexts. The assemblage of 359 sherds (*c.*2.8kg) is dominated by plain body sherds in a coarse flint fabric, two with decorated rim sherds. The larger portion of pottery assemblages (204 sherds, *c.*1.4kg) came from five dispersed isolated pits outside of the two posthole concentrations.

The distribution of pottery in the main central area of the site is clustered into two areas at the west and east ends, around the four-post structures, and from two fire pits (Fig 2.2). The vast majority of the other features had no finds. Pottery from structure HS2 was found in the post-pipe fill rather than the surrounding packing material. Only seven sherds (33g) came from the smaller concentration of features to the north-east.

MIDDLE–LATE BRONZE AGE PITS IN THE LOWER VALLEY

SUMMARY

SITE Q

A single large pit, with vertical sides and a flat base, may have been used as a well. The basal fills were largely charcoal rich deposits containing charred oats, barley, wheat and the seeds of grassland herbs alongside burnt bone, pottery and fired clay. Two radiocarbon dates firmly date it to the middle Bronze Age.

SITES D AND G

Two pits, one each on Sites D and G, contained exclusively middle–late Bronze Age flint-tempered pottery and produced radiocarbon dates of firm late Bronze Age date. There was a sparse scatter of residual

sherds in early Iron Age pit clusters and across an otherwise predominantly middle Iron Age settlement site. The impact of the Iron Age settlement on the earlier features was extensive; further middle–late Bronze Age pits could not be clearly determined but had almost certainly been impacted by later settlement.

SITE M

A pit alignment was located on the flood plain to the north of the Ouzel Brook, perpendicular to the stream channel, and at the west end of the A5–M1 link road.

This minor boundary comprised 22 individual pits aligned roughly north-west to south-east (Fig 2.11). The pits were fairly evenly spaced and varied in surface shape between sub-rectangular and circular. The size and profiles of each pit were also unique, with the average pit being around 1.0m wide by 0.5m deep. Fill constituents were fairly consistent with most merging between medium to dark orange-grey or grey-brown clay. All of the pits were fully excavated and bulk soil samples were recovered from six of the pits; these were largely sterile with small quantities of charcoal and snail shells (Fryer 2016, appendix 3.3, table 57). Some abraded charcoal was recovered, but there were no seeds present and whilst the abundance of slum molluscs may suggest that they were left open to silt naturally; the equally abundant open country species indicated that this took place within a landscape consistent with short grassland. A charred twig from one of the pits returned an early Bronze Age date from radiocarbon analysis. The pit alignment is otherwise undated and the early Bronze Age date suggested by radiocarbon analysis is somewhat anomalous, as most pit alignments are dated to the late Bronze Age to middle Iron Age.

In addition to the pit alignment, and isolated separately on its east side, was a possible well pit that produced a plain and undiagnostic middle–late Bronze Age pot sherd (30g).

MIDDLE–LATE BRONZE AGE PITS AT SITES D, G, M AND Q

Isolated pits were found on separate sites that produced small assemblages of flint-tempered pottery (Fig 2.12). They all lay on the lower, level ground of the Ouzel Brook flood plain where the underlying geology comprises grey-white chalky clay occasionally punctuated by patches or orange-brown silty clay gravel.

Pit D[1028] was exposed during excavation of a drainage channel, on the north-east side of the A5 roundabout. Pit G[1298] was located in the footprint of the overbridge near to Thorn Farm, and pit Q[1114] was found at the edge of excavation to the north-east side of Site Q. A further possible well, M[44], lay to the east of the pit alignment at Site M.

Fig 2.11 Pit alignment, Site M, looking north-west

The largest of these was pit Q[1114], which had near vertical sides and a flat base, and may have been used as a well (Fig 2.13). The exposed portion was sub-rectangular; 3.0m long in plan, 1.80m wide, and 1.56m deep. The basal fill contained mottled dark grey-brown clay silt above which a band of loose charcoal rich black silty loam had been tipped. These basal fills were largely undisturbed with the charcoal rich fill containing charred oats, barley, wheat and the seeds of grassland

Fig 2.12 Location of isolated middle–late Bronze Age pits, Sites D, G, M, Q

herbs. Charred barley grains returned a radiocarbon date of 1450–1380/1340–1305 cal BC (95% confidence, 3130±30BP, Beta-458342). Burnt bone and fired clay were also present. Some of the material may have been from grain processing, however, the presence of burnt bone, pottery and fired clay suggested that domestic waste was used to fill in the well after disuse. The burnt material was deliberately sealed below a redeposited natural clay layer, which, although containing no finds, returned with an identical radiocarbon date from roundwood charcoal (Beta-458341). The top of the pit was truncated by a late Iron Age/Roman enclosure ditch.

Another possible well pit at Site M, M[44], was sub-circular in plan and 0.97m wide. The upper side had a steep incline, with a break in slope at 0.60m to a near vertical face (Fig 2.14). It was excavated to a depth of 0.90m before it filled with water (excavation abandoned at this stage). The lowest fill was firm mottled grey sandy gravelly clay with frequent grit and occasional charcoal flecks, which had washed in from the sides. Darker grey-brown silty clay had washed in above this, suggesting it was open for some time. The fills were

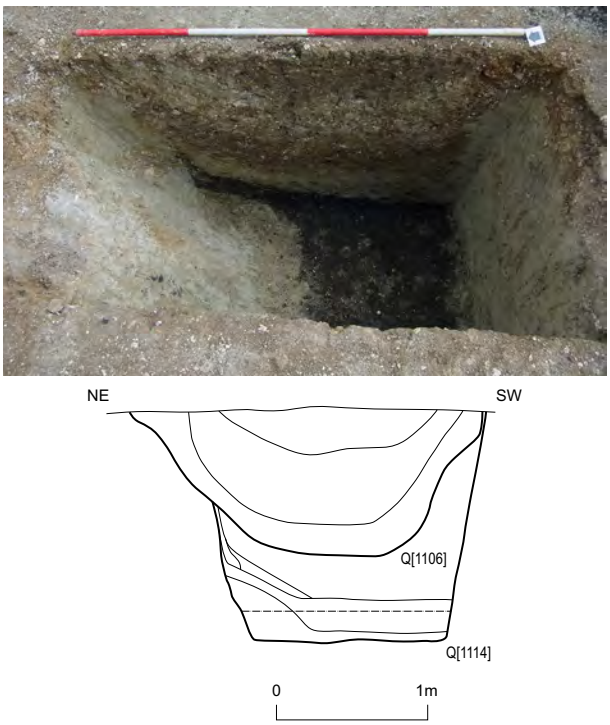


Fig 2.13 Isolated middle Bronze Age pit, Q[1114]

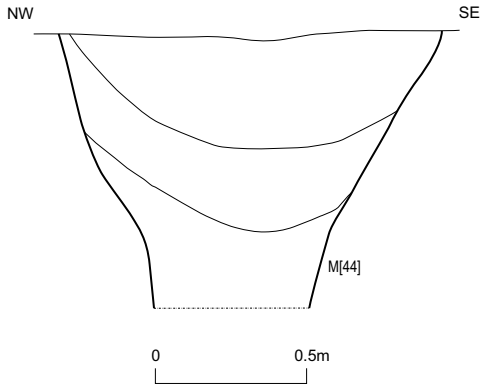


Fig 2.14 Isolated middle–late Bronze Age pit, M[44]

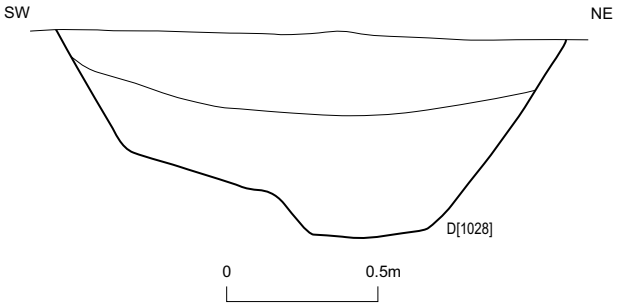


Fig 2.15 Isolated late Bronze Age pit, D[1028]

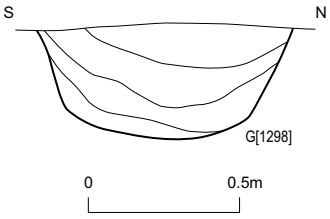


Fig 2.16 Isolated late Bronze Age pit, G[1298]

speckled with orange-brown iron salts, the product of a fluctuating water level. The main upper fill was firm mid blue-grey clay-silt with pebbles, charcoal flecks and a single plain body sherd of pottery. Unlike the lower deposits the upper fill was more homogeneous, and had probably been deliberately backfilled.

Pit D[1028] was oval, 1.50m long and 0.75m deep, with steep sloping sides and a rounded base that was stepped and slightly deeper at one end (Fig 2.15). The basal fill comprised brown-grey silty sandy clay and gravel, 0.40m thick, overlain by darker brown silty clay, 0.27m thick. The pit contained middle–late Bronze Age pottery (16 sherds, 175g) and animal bone that returned a radiocarbon date of 1000–835 cal BC (95% confidence, 2770±30BP, Beta-456913).

Closer to Thorn Farm another isolated possibly late Bronze Age pit, G[1298], was surrounded by medieval features. The pit was 0.85m in diameter and 0.38m deep with near vertical sides and a rounded base (Fig 2.16). The fill appeared dark black-brown silty clay loam, almost identical to medieval ditches nearby. An intrusive medieval pottery sherd was recovered from the surface, whilst the fill contained charred seeds, grain and hazelnut shells from which a late Bronze Age radiocarbon date was obtained: 1440–1370/1355–1300 cal BC (95% confidence, 3120±30, Beta-458334).

Late Bronze Age/early Iron Age pits at Site C

The location of Site C was similar to that of Site H, occupying the west side of the same hilltop, on the opposite side of the M1 motorway cutting (Fig 2.1). The ground here was fairly level and the geology was a grey-white chalky clay.

This site comprised seven pits in an isolated cluster, spaced unevenly 0.5m–5.5m apart, but in a random pattern (Fig 2.17).

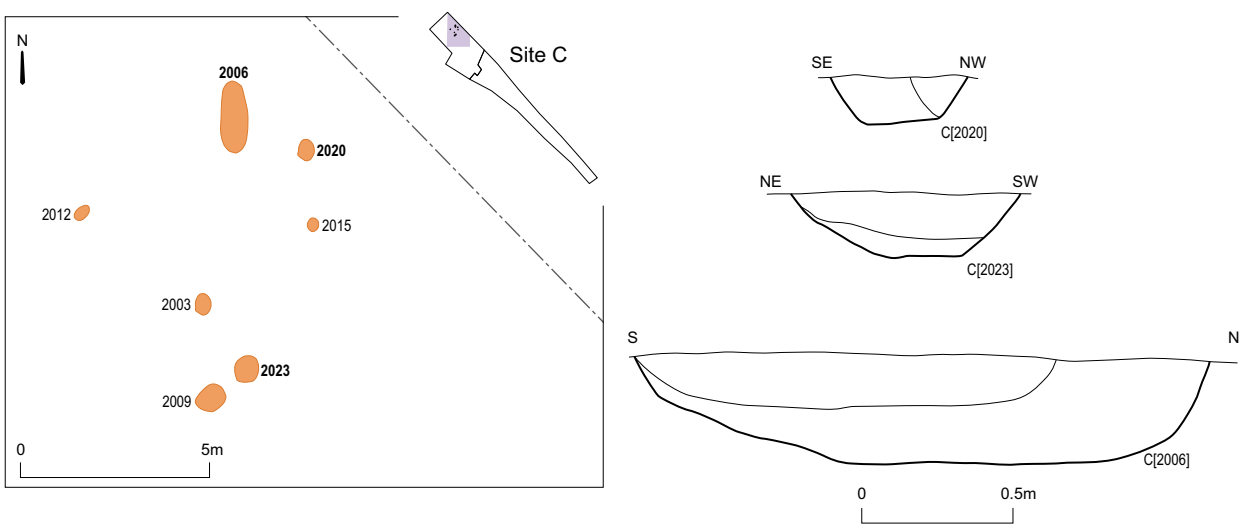


Fig 2.17 Late Bronze Age/early Iron Age pit group, Site C

The pits were mostly circular or sub-circular in plan, with one larger elongated pit. The pits tended to have steep sides with a rapid break of slope onto a flat base, but varied considerably in size, being between 0.35–0.75m in diameter and 0.13–0.35m deep. The elongated pit, C[2006], was 1.90m by 0.90m in plan, aligned north-south, and was 0.35m deep (Fig 2.17).

All of the pits, with the exception of pit C[2003], accumulated two distinct fills, although these were not consistent across the pits; three of the pits had basal fills of firm light brown silty clay, and two others had dark grey-black silty clay fill with a few burnt stone cobbles. Two further pits contained firm light yellow-brown chalky clay. This indicates that the pits were not all contemporaneous. Pit C[2020] had traces of friable light grey-white ash on one side (Fig 2.17), but there was no scorching in or around any of the pits.

Pit C[2023] contained a small assemblage of bone in the darker fill, including two partial calf skeletons, together with elements of sheep/goat (Fig 2.17). Small undiagnostic fragments of animal bone were found in three other pits. A cow's tooth from pit C[2020] produced a late Bronze Age date, 970–960/930–820 cal BC (95% confidence, 2740±30BP, Beta-446428). In most cases these pits seem to have been deliberately backfilled with domestic material but there was no indication they were used as fire pits.

The largest pit, C[2006], contained the most pottery, including sherds from a rim and base of a barrel-shaped vessel (Fig 2.17). Animal bone provided a middle–late Bronze Age radiocarbon date, 1120–975/955–940 cal BC (95% confidence, 2870±30BP, Beta-456909). A significant quantity (1.41kg) of late Bronze Age/early Iron Age pottery was also recovered from the upper fills of the other six pits. The majority of the pottery comprised thin walled, plain body sherds, with dense flint-tempered fabric, and orange-brown to grey-brown coloured external surfaces and darker internal faces.

The Bronze Age pit alignment, south of Site M

This pit alignment lay to the south of Thorn Road where a balancing pond was required for the scheme (Fig 2.1). The land in the lower flood plain of the Ouzel Brook is largely flat and the slope southward towards the stream channel is almost imperceptible. The geology is grey-white chalky clay with alluvium to the south and occasional periglacial clasts of orange-brown sandy clay.

The sinuous pit alignment comprised a single row, *c.*53m long, of 22 pits laid roughly north-west to south-east (Fig 2.18). The pits were fairly evenly-spaced, but their shape varied in plan between sub-rectangular, oval and circular. The alignment was not observed in the area to the south of Site G.

The alignment was cut by a straight ditch, one of a series of boundaries, aligned south-east to north-west, spaced throughout Site M. These later, undated, boundaries may relate to Iron Age or early Roman field systems and are considered to be unrelated to the pit alignment.

The form and character of the pits

Within the alignment, the northernmost eight pits were cut by a later ditch, whilst the gradual curvature of the row meant that the others were unaffected (Fig 2.11). Whilst pits broadly followed a line, the overall drifting of the alignment to the south suggests that it was probably laid out by eye. There was only a very small drop in level between the pits at either end.

The pits varied in size and form, from sub-rectangular to oval and sub-circular in plan (Fig 2.18). Those with sub-rectangular forms usually had rounded ends. The long axis of the pits tended to be orientated with the alignment. The surface plan of the pits generally corresponded with their basal outlines. Variation in the shapes and sizes of pits was localised to groups of similar pits, over short stretches of 10–16m within the alignment; this may have been caused by disturbance from later medieval ploughing although no furrows were evident during excavation. The pits were fairly shallow at 0.25–0.59m, averaging *c.*0.42m. Those at the northern end were all below this average and features appeared to become shallower proceeding north.

Taking the distances from centre to centre between pits, larger pits were unsurprisingly spaced more widely than smaller pits. Larger pits were 2.80–3.15m apart, with a median of 3.00m and smaller pits closer together at 1.70–2.20m, with a median of 1.95m. Only one gap was narrower than average at 1.42m. However, examining the spacing between the edges of pits, rather than the centres, the separation ranged between 0.55–1.45m, with a mean average of 1.00m and a variance of ±0.20m. The largest spacing was either side of pit M[139], which was also slightly offset from the rest of the pits, and perhaps a later insertion to close a small break in the alignment.

The pit fills derived from the natural chalky clay mixed with surface in-wash and producing predominately calcareous loamy soils with chalky gravel, small pebbles, flint and iron pan. The basal fill tended to be grey-brown chalky clay with orange-brown mottling from iron salt precipitates. Generally, the basal fill formed a deposit around the sides and/or across the base of the pit, 0.12–0.25m deep, suggesting fairly rapid erosion. There was no evidence to suggest the pits were maintained or cleaned out. Upper fills were usually slightly darker with fewer iron salts, incorporating greater surface in-wash. There was no evidence for tipping or backfill.

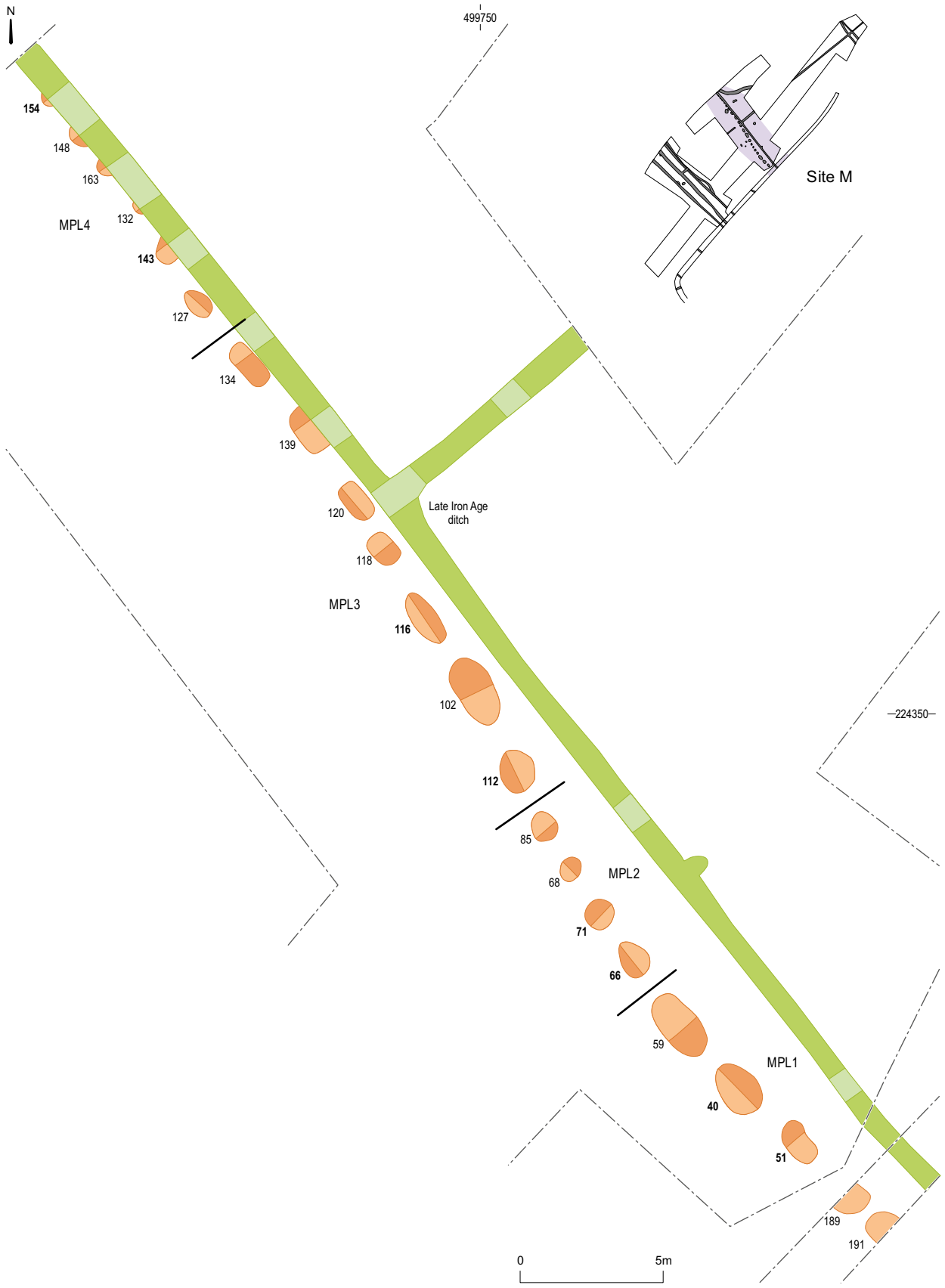


Fig 2.18 The Bronze Age pit alignment, south of Site M

Pit M[112] was rich in iron salts, which occurred as bands in the fill as a consequence of long term fluctuations in the water table.

Finds were rare; pits M[51] and M[102] each produced a fragment of animal bone in such poor condition that the species could not be identified. Organic residues from the environmental bulk samples were also scarce (Fryer 2016, table 57). A charred twig from pit M[102] was the subject of radiocarbon analysis, which returned an early Bronze Age date 1900–1745 cal BC (95% confidence, 3500±30BP, Beta-446417). The date is unusually early for a pit alignment and is treated with some scepticism as the twig could easily be residual. There was no other suitable charred material from the other pits with which to corroborate the date. Most pit alignments would be expected to produce a date within the late Bronze Age to middle Iron Age, but are often undated.

Groups within the alignment

The 22 pits of the alignment could be grouped into four sections where pits were visually similar and had similar characteristics (Fig 2.18). Starting at the southern extent and proceeding north, MPL1 comprised five large sub-rectangular pits, MPL2 had four smaller sub-circular pits, MPL3 was a mixed group of six large oval or sub-rectangular pits with one smaller pit amongst them, and MPL4 comprised six smaller sub-circular pits that were cut by a later ditch at the northern extent.

Group MPL1

The five pits at the south-eastern end included two that were found during a general watching brief on a drainage ditch. Pits M[189] and M[191] lay on the alignment and were noted on removal of the topsoil before they were recorded in the section of the drainage ditch sides. These two pits were not available for investigation in the same manner as those which lay in the adjacent detailed excavation area owing to the method employed to cut the drainage ditches. This meant that there was no opportunity to excavate these features prior to their truncation by machine; limited investigation suggested the pits were steep-sided and up to 1.15m wide by 0.60m deep.

The other three pits in the group were fully excavated by hand. Pit M[51] had a rounded profile and a flat to slightly rounded base (Fig 2.19), 1.55m by 0.75m in plan and 0.37m deep. On its north side the pits were larger; pit M[40] measured 1.95m lengthwise and was 1.40m wide by 0.59m deep, whereas pit M[59] was 2.50m long by 1.25m wide and 0.40m deep (Fig 2.11 foreground; 2.19). All of these pits had steeply sloping sides and flat or slightly uneven bases. The only variation was at the north end of pit M[40], which had a sharp break between the side and base, asymmetrical to its gently rounded south end.

Group MPL2

This group comprised four smaller oval and sub-circular pits, with pit M[66] at the southern end. This smaller oval pit was 1.25m long by 0.95m wide and 0.32m deep. The three pits to the north became gradually more circular, but retained similar profiles that had fairly steep sloping sides with a rounded break of slope onto a flat base. These pits were less than 1.00m wide and generally shallower than those in other groups.

Pit M[85] stood out because of its irregular profile which had steep sides with a deeper hollow offset at the base, caused by a later posthole cut. The dimensions at the top remained consistent with the other smaller pits in this group. The later undated posthole was 0.20m wide by 0.47m deep, with vertical sides and a flat base. The fill of the posthole was darker grey-brown than that of the pit, and its fill contained voids suggesting it had not had sufficient time to settle.

Group MPL3

Six large oval or sub-rectangular pits and one smaller sub-circular pit formed this group. The four pits at its southern end were similar to group MPL1, although slightly larger and deeper overall, up to 0.50m deep. Both pits M[112] and M[116] displayed a sharp change from their steep sloping sides onto flat bases (Fig 2.19), also seen in pit M[118]. The two pits at the north end of the group, M[134] and M[139], followed the same pattern but differed slightly as their profiles were more V-shaped with narrow rounded bases. The largest pit, M[102], was 2.55m long with a broad steep-sided profile, 1.14m wide, and with a rounded base.

Most pits had a single homogeneous fill and some had basal in-wash with a darker upper horizon, occasionally flecked with iron salts. The fill of pit M[112] was notable as it preserved sufficient differentiation to show a sequence of dark infill deposits (Fig 2.19). Varied fill layers of dark silty clay contained a number of large stone cobbles, which exhibited scorching and heat fractures, unique to this pit.

Group MPL4

The six northernmost pits were sub-circular to oval in shape and all but the most southerly pit in the group were quite heavily truncated by a later boundary ditch.

Pit M[127] had fairly steep asymmetrical sloping sides, with a gradual break of slope on one side and sharper break on the other, both meeting a flat base. The pit

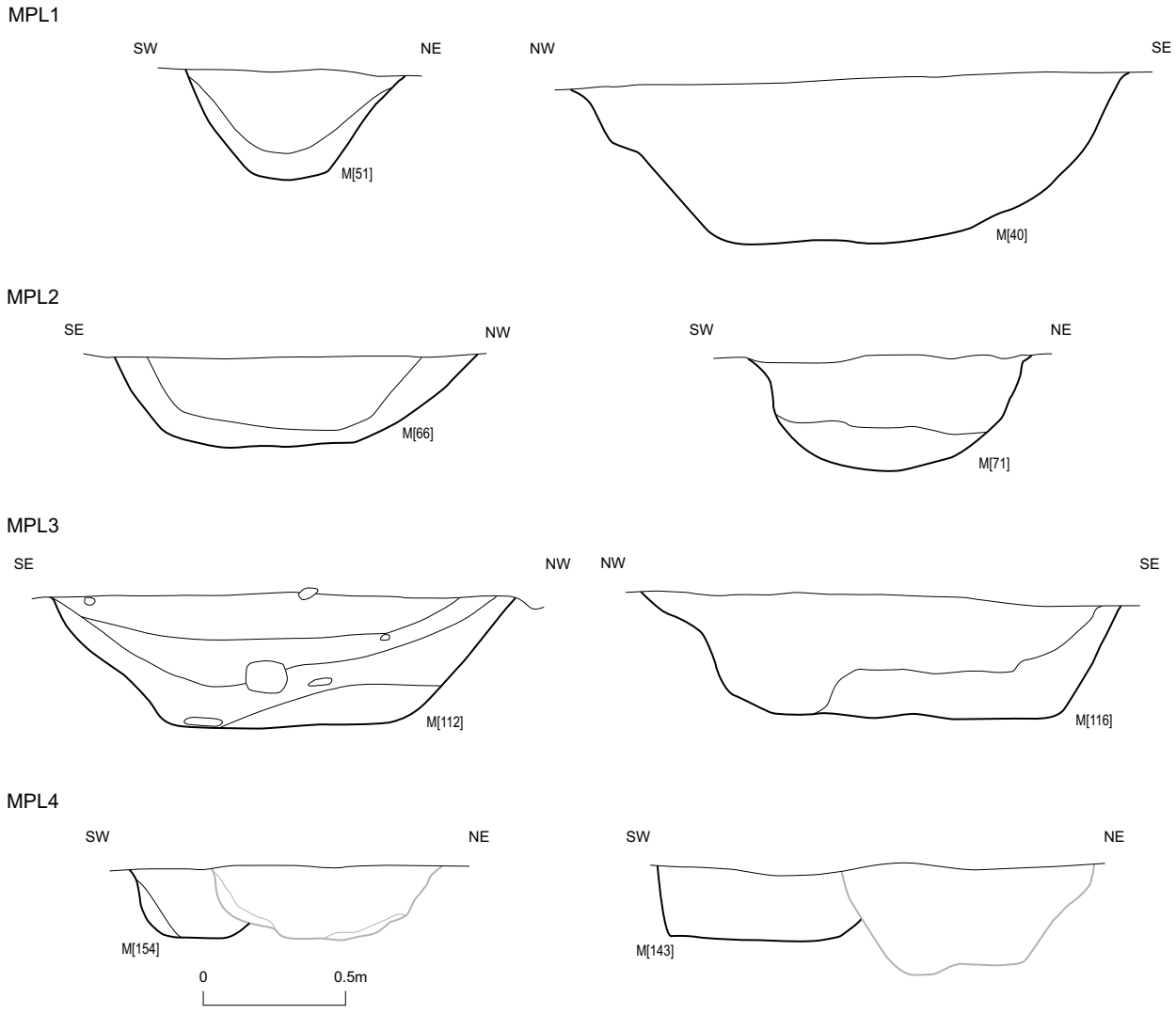


Fig 2.19 Selected pits from pit lines MPL1-4

was 1.10m by 0.67m in plan and 0.27m deep. To judge by the surviving profiles of the other five pits, these were probably smaller and similar to group MPG2. Although the north-east side of the pits had been truncated by the ditch, enough of pits M[143] and M[154] remained to show they had near vertical sides and flat bases (Fig 2.19). These more truncated features were all quite shallow at 0.25m–0.34m deep.

Pit alignments and other features at Site P

At the mid-point of the A5–M1 link road, on the valley flood plain to the north of the Ouzel Brook, another pit alignment lay perpendicular to the stream channel. No features were indicated here by the earlier geophysical survey (Simmonds and Fisher 2008, figs 9–10). The site lay within a 95m long stretch of the road corridor, exposed by an 8m wide targeted watching brief transect, and further extended to the width of the road either side of the main concentration of features. The land was flat and prone to flooding with an imperceptible southward slope towards the Ouzel Brook. The geology is consistently chalky clay till.

At least 12 pits were roughly aligned north to south and a further seven pits formed a similar alignment, slightly offset from the first (Figs 2.20, 2.21). The character of the individual pit features differed little between the two alignments. The alignment was seemingly renewed by the cutting of further pits and the boundary it delineated was eventually replaced by a ditch for at least part of its course. Other pit-like features in the vicinity may be the result of ancient tree root disturbances. A roughly rectangular scatter of pits lay at the southern end of the alignment, but was not structural in origin.

The site was quite badly disturbed by a modern hedgerow, making it impossible to select viable bulk soil samples for radiocarbon analysis. The seven best samples were largely negative, providing a small amount of charcoal and a range of snail species consistent with

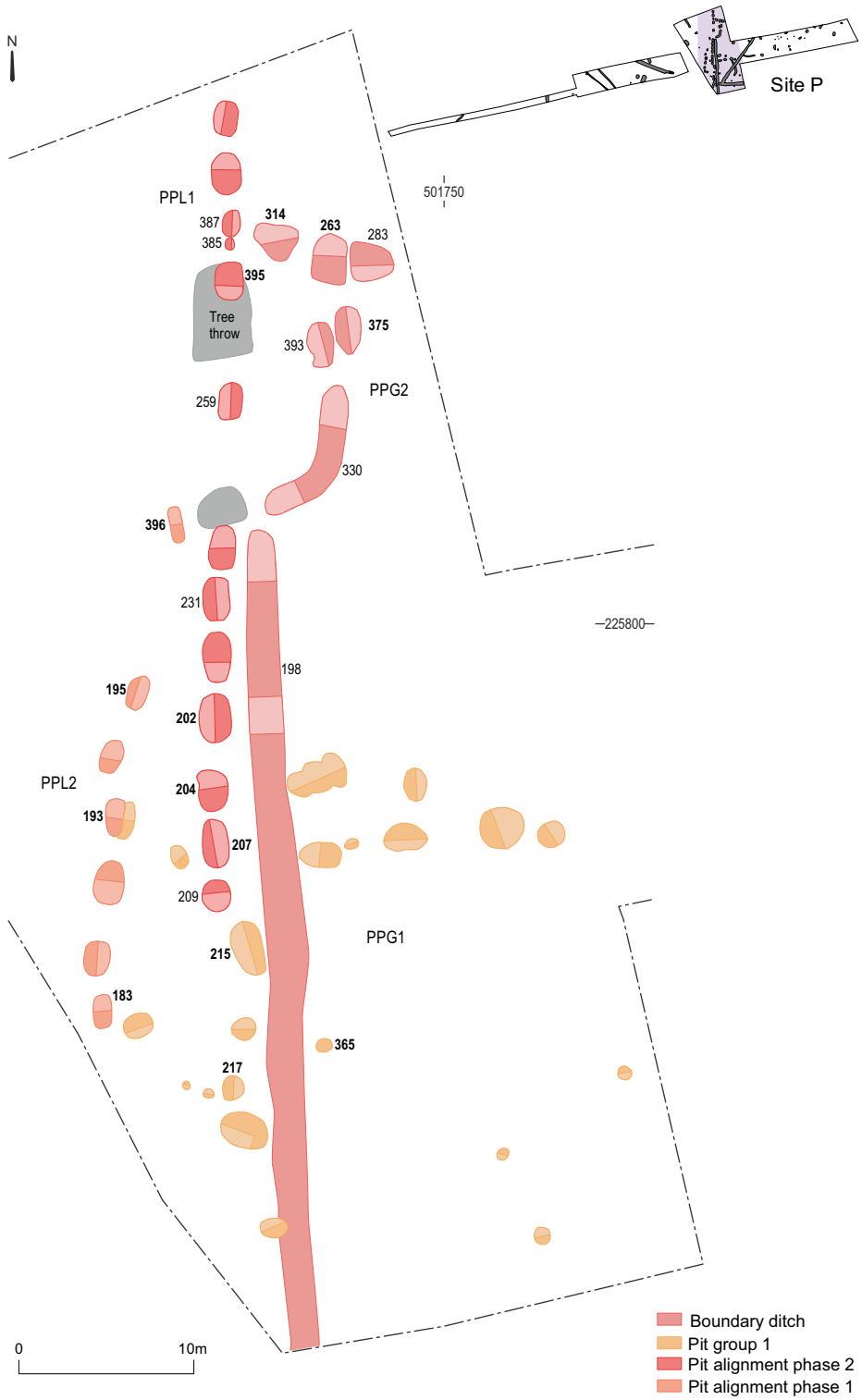


Fig 2.20 The undated pit alignment, Site P

those found in hedgerows along pasture fields (Fryer 2016, appendix 3.3, table 60).

Two pits and a ditch produced three pottery sherds from surface fills, which may be late Iron Age or early Roman, and two pieces of worked flint that were entirely residual. The pottery crumbs are not diagnostic enough for accurate dating.

There were two rows of undated pits roughly aligned north to south; a main row of at least 12 pits, PPL1, and the adjacent row of a minimum of seven pits, PPL2 (Fig 2.20). The two rows were offset, although the westerly row appeared to gently converge on the other. A distinctive gap lay part way along the main row, which may have been a crossing point.

A group of other pits, PPG1, was positioned close to these alignments, south of the crossing point. While these were undated it is possible that they may have been contemporary with one of the pit alignment phases. Some of these pits seemed almost to almost form an extension of the alignment PPL1 and others were scattered in a vaguely rectangular pattern. The site also incorporated ancient root activity within the archaeological sequence, not to be confused with intrusive root action from a modern hedgerow along the west side of the site.

A boundary ditch, P[198], probably successor to both pit alignments, followed their course, extending in from the south and terminating within the excavation area. The ditch terminated coincidental with the break in pit alignment PPL1, where a short curving gully and five pits, PPG2, formed an intentional rectangular arrangement on its

Fig 2.21 Pit alignment and other features, Site P, looking south

east side. This unusual group of features appeared to close off the gap in the alignment.

THE FORM AND CHARACTER OF THE PITS

There was a noticeable difference in the orientation of the two main alignments, and also some variation within sections of the main alignment itself (PPL1). Within pit group PPG1 there was no clear pattern to the cluster of pits which lay to the east of the alignments, although a number of pits in this group positioned at the south end of PPL1 may have followed the line of the alignment. A group of five pits, PPG2, closed the crossing through PPL1 and these were also different in form. Comparison of the different pit groups showed varied forms in each group that may be indicative of different phases of activity.

For both alignments in plan, the pits were typically sub-rectangular or elongated and oval-shaped, with straight sides, rounded at either end. The long axes of the pits were aligned north to south. The surface shape corresponded with their basal outline, smaller in size in respect of the sloping sides. Root activity and waterlogging had distorted the original form in some instances. A handful of pits at the southern end of the alignments were sub-circular.

Erosion of the upper edges of the pits may have led to silting, and various taphonomic factors contributed to the more irregular and distorted shapes in plan. The fills largely derived from the topsoil rather than the chalky marl, with varying quantities of gravel, flint and in-washed surface material.

However, as the soil profile lacked either an eluviated horizon or subsoil, it is likely that the area by the stream was consistently soft marshy ground which would prevent either of these layers forming. Consequently pits and ditches would not need to be very deep before they began to fill with water, perhaps accounting for their shallow depth and small size, rather than the usual explanation of modern truncation.

Most of the pits contained a similar uniform fill, composed of contrasting shades of grey-brown to black clay or silty clay with varied gravel, pebbles and sub-angular flint. The black organic content was a result of pervasive modern root activity but for the most part the fills comprised perhaps fairly rapidly accumulated in-wash. The fill of pit P[395] stood out, with orange-brown silty clay and grey-white chalky clay mixed into the matrix as a result of cutting through an adjacent tree throw.

The only artefacts from the pits were two flint flakes of broadly late Neolithic/early Bronze Age date. Assessment of environmental samples indicated that there was no material worthy of quantification or examination as a result of substantial recent root disturbance (Fryer 2016).

THE MAIN PIT ALIGNMENT, PPL1

The central row of 12 pits lay in a broadly straight line with two notable breaks to either side of a solitary pit (Fig 2.20). The pit alignment lay north to south, *c.*26m long, and probably continued beyond the excavated area to the north. Its southern extent was ambiguous and the course appeared to halt, perhaps diverted along the route of pit alignment PPL2 to the south-west.

A break in the alignment to the south of pit P[395] was 8m wide with a single pit in the middle of the gap. The break is interpreted as a crossing. Two large tree hollows lay at either side of the gap. The trees had stood in antiquity as the hollows had been cut by the pits. On the south side of this break all three boundary alignments converged on the southern tree throw. Whether deliberate or by chance the trees were incorporated into the boundary line, with later features diverted around them.

The pits at the north end of the alignment were slightly less consistent in layout and form than the pits to the southern end. The secondary pit alignment, PPL2, had a similar variation in pit size.

THE NORTHERN PITS AND BREAK IN ALIGNMENT

Five pits and a single posthole lay at the northern edge of the excavation, covering a linear distance of *c.*9m (Fig 2.20). The pits were slightly irregular due to the effects of weathering, but shared a similar sub-rectangular or oval form in plan with straight sides and rounded ends. The long axes were aligned north to south, with lengths between 0.65–1.06m, and widths between 0.40–0.60m. These pits were exceptionally shallow at 0.06–0.01m deep (Fig 2.22, P[387], P[395]). Due to their limited depth the sides were hardly perceptible and displayed only the gently rounded remains of the bases. A possible sub-circular posthole, P[385], lay among the features and was 0.42m in diameter, but barely 40mm deep.

Pit P[395] was cut through natural that had previously been disturbed by tree root action. The pit was located on the north side of a break in the pit alignment, and appeared to have been cut where the tree had stood. The area of disturbance was roughly 2.85m long by 1.75m wide, with an irregular profile up to 0.60m deep, combining varied deposits of firm dark grey-black and orange-brown silty clay with light grey-white chalky clay.

Pit P[259] lay central to the gap in alignment. The average spacing, centre to centre, between the four pits to the north was 1.45m and the distance to pit P[259] was 4.0m, equidistant to the nearest pit to the south. The pit had gentle sloping sides and a flat to slightly rounded base, which did not stand out remarkably compared with the others (Fig 2.22). A smaller tree throw lay on the south side of the break in alignment.

THE SOUTHERN ROW OF PITS

This part of the alignment was the most uniform, comprising seven pits between 1.01–1.40m long, which were closely and evenly spaced. These were laid in a straight line, approximately 13m long. These pits were consistently sub-rectangular except for the pit at the southern end, P[209], which was distinctly sub-circular, bowl-shaped and 0.8m in diameter (Fig 2.22). The widths of most pits were 0.57–0.70m, greater compared to alignment PPL2. The depths were also marginally greater, at 0.07–027m deep.

The sides of most pits were incomparable due to the shallowness of the features and normally only the break in slope and base survived. Steep-sided remnants occurred in several instances (Fig 2.22, P[204], P[231], P[202]). Pit P[207] was deepest with a shallow sloping south end and a steep-sided north end. In most cases the bases of the pits were slightly uneven or undulating, occasioned by rounded or flat variations.

The pits were spaced at 0.30–0.55m intervals, with two slightly wider gaps. The average spacing from centre to centre remained around a mean average of 1.70m, with a variance of ±0.25m.

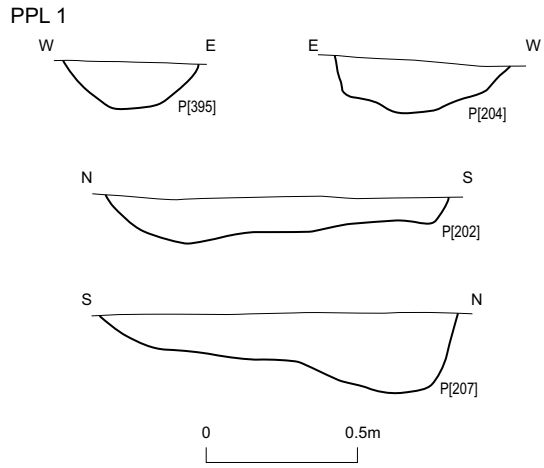


Fig 2.22 Pits in alignment PPL1

OTHER ALIGNED PITS, PPL2

The western row of pits comprised seven slightly meandering features stretching north to south over a distance of *c.*10m (Fig 2.20).

Pit P[183] was the southernmost pit within the PPL2 alignment, although it is likely that the alignment continued south beyond the excavated area. The southern six pits were more closely grouped, with the northernmost pit being P[195]. A further outlying pit, P[396], was situated *c.*4m further north on the same line and may be associated. These pits were generally narrower and slightly more rounded at the base than the main alignment. The spacing between the pits varied from 0.7–1.3m apart. Too few pits lay along this alignment to get a reasonable medial measurement between centre points.

The breaks along row PPL1 and PPL2 appear related and it is possible that one of the alignments was an alteration of the other, either with PPL2 being a diversion of the original, or the earlier PPL2 being straightened out into PPL1. The location of pit P[396] was adjacent to an isolated tree throw, where the other alignments also met, and which raised the possibility that is had been a double row of pits, converging into a single row.

The pits were fairly consistent in plan; there was little variation in size at 0.8–1.0m long by 0.40–0.46m wide. The pits sectioned across their width displayed fairly steep-sided profiles (Fig 2.23, P[183], P[396]). Those sectioned on the long axis had slightly gentler sides, but not significantly different (Fig 2.23, P[195]). Bases were usually flat or slightly rounded with a certain amount of unevenness common to all of the pits. Pit P[183] was unique in the group because of its deeper symmetrical U-shaped profile.

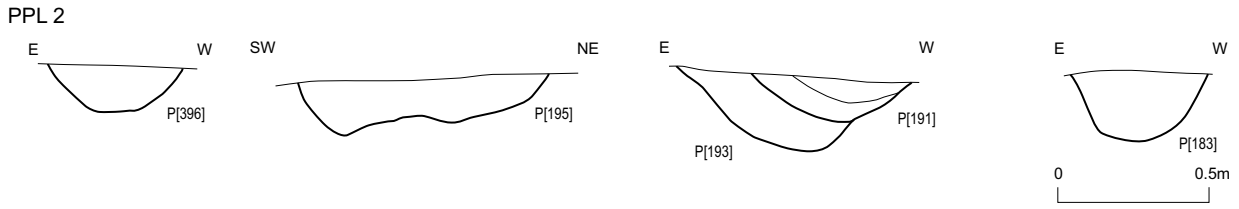


Fig 2.23 Pits in alignment PPL2

NON-ALIGNED PITS AND POSTHOLES, PPG1

In the immediate proximity of the pit alignments, towards their southern extent, there was a group of 20 scattered pits, PPG1 (Fig 2.20). As with the aligned pits these features were generally shallow, and the fills were fairly consistent, being dark grey-brown silty clay with a black organic component. All of the features were sub-circular. Approximately one third of these pits were elongated and well over 1.0m long. Another third of these pits were slightly more rounded and closer to 1.0m wide. The remaining third were features well below 1.0m wide, often less than 0.5m, some of which were possibly truncated postholes. There was, however, no evidence to suggest these pits or postholes were associated with more significant structural remains such as doorposts, frame supports, gully slots, hearth areas or eroded pathways.

The pits were all undated and are grouped together by proximity alone. The pits were very diverse in form and, apart from their shallow depth, none bore clear similarity to those which made up the alignments. Despite this, pits in the group PPG1 lay close to the southern end of alignments PPL1 and PPL2, suggesting possible association. The pits with the clearest probable association were four pits which lay put the south end of PPL1 on a similar alignment, slightly offset. The four pits formed a row over *c.*6m in length with no obvious continuation to the south, although they are thought to be too varied in shape and size to belong to the alignment. The larger pits were shallow, often with short sloping sides with either flat or slightly undulating bases, up to 0.10–0.12m deep (Fig 2.24, P[215]). Smaller pits had steeper sides and were generally rounded at the base but varied between both shallow and deep forms (Fig 2.24, P[217], P[365]).

A number of other outlying pits and postholes formed part of PPG1, lying to the east and south of the pit alignments. At least one pit was cut by a pit in alignment PPL2.

Six further postholes were scattered across the southern extent of the group in no particular arrangement, all around 0.25m in diameter and less than 0.10m deep. The fills remained consistent with the other features nearby.

A LATER BOUNDARY AND PITS GROUP PPG2

The ditch [198] was *c.*23m long and extended beyond the limit of excavation; it respected the pit alignments and probably replaced that boundary. It was also undated (Fig 2.20). The ditch had been recut, which suggested the boundary was maintained for some extended period. With so many features in this location with various possible permutations in the chronology between the groups, this at least appears to be the latest. There was practically no variation in the level of the base of the ditch, suggesting that drainage was not its priority function.

The ditch terminated at the same tree throw as the pits, coinciding to the south of the breaks in alignment. A short curving gully, P[330], created a 2m-wide offset to the east from the ditch terminal and then was realigned to the north for *c.*3.5m, over the rough width of the break. Situated to the north of the gully were five pits, PPG2, which linked back to the pit alignment.

DITCH, P[198]

The first iteration of the ditched boundary was a shallow linear gully P[200] which survived for a length of *c.*10m and was steep-sided with a flat to slightly rounded base. The gully had light grey-brown chalky clay in-wash at the base with firm dark brown to grey silty clay upper fill.

The gully was recut on its east side by a larger and deeper ditch P[198]. The recut laid a straighter course than the earlier gully, and in comparison to the pits it was a much deeper feature, at 0.69m wide by 0.34m deep.

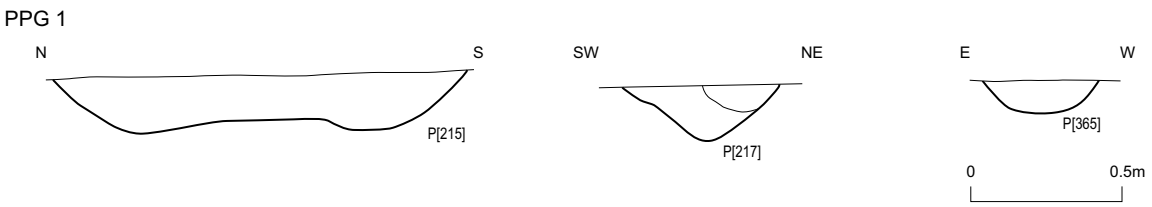


Fig 2.24 Section profiles in pit group, PPG1

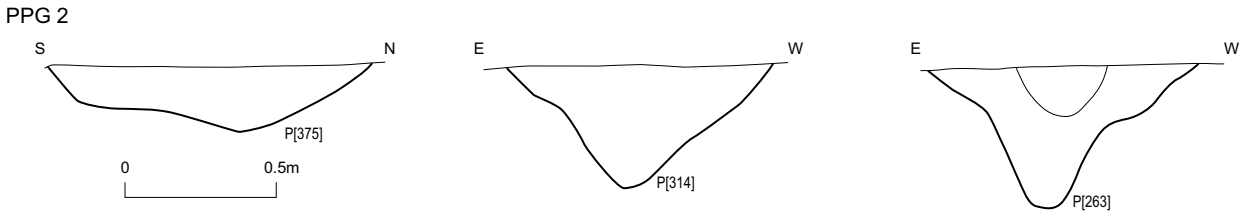


Fig 2.25 Section profiles in pit group, PPG2

The profile displayed a steep-sided cut with a sharp break onto a flat base. Rapid silting preserved the sharp profile, preventing longer term erosion of the sides or base. At its north end the ditch terminated in a rounded end where it was slightly broader and shallower than its main extent. The fill was firm to compact dark grey-brown to black silty clay throughout, with frequent flint pebbles. A single undiagnostic plain pottery body sherd from the ditch terminal is broadly Iron Age in date.

CURVING GULLY, P[330]

Around 0.50m to the north of the terminal of ditch P[198] was a short curving gully P[330] (Fig 2.20). This gully was offset around 2.0m to the east of pit alignment PPL1 and appeared to be positioned to close off the gap in the pit alignment. The gully was excavated at both terminals and had shallow rounded ends, moderately steep sloping sides and a flat base, 0.45m wide by 0.10mm deep. The fill was identical to that of the main boundary ditch with which it was associated.

PIT GROUP, PPG2

On the north side of gully P[330] there were five pits (Fig 2.20). Pits P[375] and P[393] lay immediately north of the gully, side by side 0.15m apart, and, similar to the pits in the main alignments, both were relatively shallow with a length of 1.10m. Comparison between the two pits showed only minor differences in size and form (Fig 2.25). The fills were consistent with nearby features.

In contrast, the other pits were distinctly deeper, steep-sided and less regular in shape. These three pits did not have clear orientations; the central pit P[263] had its long axis aligned with the rest of the boundary, whilst its flanking pits were perpendicular. The pit had moderately steep undulating sides, breaking in slope to a V-shape with a rounded base (Fig 2.25), and at 0.48m deep, this was the deepest of the pits. By comparison pit P[283] was broader, with a gentler slope, and with moderately steep asymmetrical sides, 0.26m deep. The fills of these pits were the same dark brown to black silty clay found throughout the site. A single sherd of 1st to 2nd-century AD Roman sandy ware was recovered from the surface but may have been intrusive.

The edges of pit P[314] were difficult to distinguish and it had an irregular shape in plan; however, the cut had steep sloping sides that met in a pointed base (Fig 2.25, P[314]). The pit was 0.42m deep, and was the second deepest pit on the site. Dark brown black silty clay fill produced another single sherd of 1st to 2nd-century AD Roman sandy ware pottery and a residual flint flake.

The three pits in the north of this group stood out in character because of the stark differences in form both in plan and profile. The apparent late date of the finds is curious, but given the level of post-depositional disturbance is treated with caution.

SPECIALIST STUDIES

MIDDLE–LATE BRONZE AGE POTTERY
BY ANDY CHAPMAN

An extensive group of pits at Site H (Figs 2.2, 2.6 and 2.10) and a small number of pits at Site C (Fig 2.1 and 2.17) and in the lower valley (Fig 2.12) produced assemblages in fabrics containing angular flint (fabrics D1 and D2). Small quantities of residual flint-gritted pottery were present within the Iron Age assemblages at Sites D and Q (Table 2.1).

At Site H, hazelnut shells from pits H[11] and H[13] have given radiocarbon dates towards the end of the middle Bronze Age, cal BC 1290-1120 (68% confidence, 2990+/-30BP, Beta-446418) and early in the late Bronze Age, cal BC 1120-940 (68% confidence, 2870+/-30BP, Beta-446419). At Site C, animal bone from pit C[2006] provided a middle–late Bronze Age date cal BC 1120–975/955–940 (95% confidence, 2870±30BP, Beta-456909), and a calf tooth from pit C[2020] has been dated to the late Bronze Age, cal BC 910-835 (68% confidence, 2740+/-30BP, Beta-446428). See Table 2.5 for results.

As these dates are not tightly clustered and span 545 years, *c.*1365–820BC, they suggest a period of activity at Site

Table 2.1: Quantification of middle/late Bronze Age pottery, all sites

Site	Sherds	Weight (g)
H	452	3314
C	94	1410
G	39	426
D	20	167
Q	9	59
Total	**605**	**5317**

H of up to 350 years, while the activity at Site C is likely to have occurred at a slightly later date.

POTTERY FROM SITE H

Pits and postholes within a limited area, shown in Fig 2.6, produced 452 sherds (3.3kg) of flint-gritted pottery, including small quantities residual in later contexts (Table 2.2).

The majority, 94% by sherd count and 92% by weight, is sandy and contains frequent angular fragments of flint that often protrude through the uneven surfaces, fabric D1. The sherds have a grey core and inner surface, with the outer surface variable and ranging from light brown and mottled orange-reds to occasional sherds with grey surfaces. The body sherds are typically 8mm thick.

There is a small proportion, 6% by sherd and 8% by weight, of finer thinner walled vessels, 5–6mm thick, in a similar sandy matrix but with little or only sparse and smaller flint inclusions, fabric D2. These thin-walled sherds are often oxidised throughout with light brown surfaces.

Pottery was recovered from 29 pits and postholes, but the majority of these each contained less than 100g of flint-gritted pottery. The larger and more numerous sherds were from posthole H[31], comprising 16 sherds (110g), pit H[13] at 20 sherds (213g), pit H[482] at 66 sherds (555g) and pit H[100] at 52 sherds (452g). Pit H[355] produced the largest assemblage, 119 sherds (1.1kg). The rest of the assemblage was residual in later boundary ditches and also within the grave fills associated with two Anglo-Saxon inhumation burials.

CONTEXT GROUPS

A small group, 25 sherds (174g) from pit H[11] comprises plain body sherds in the coarse fabric and a single finer sherd, 5mm thick, with a tapering rim that has an internal chamfer. There are two surviving rows of near vertical fingernail impressions on the body below the rim (Fig 2.26, <P1>).

The total of pottery from pit H[13], 46 sherds (292g); posthole H[31], 18 sherds (120g); and pit H[100], 52 sherds (452g), comprises plain body sherds and some sherds from a simple flat base, 10mm thick, largely from poorly-finished vessels with rough surfaces containing dense angular flint. Each group also contains a few sherds from the body of thinner-walled vessels in a sandy fabric. The smaller context groups contain only body sherds with flint.

The lower fill of pit H[355] produced the largest group from the site, 110 sherds (*c.*1kg), comprising much of the highly fragmented body of a crudely-made plain bowl containing dense angular flint, with a light brown uneven surface. There are some shallow, near vertical finger grooves from the rough finishing of the surface. The form is a large closed bowl, *c.*400mm in diameter. The upper body turns inwards, and tapers in from a body width of 9mm to a simple thin rounded rim, 3–4mm thick (Fig 2.26, <P2>). Centred 34mm below the rim, at the point where the body begins to taper and turn inwards, a smooth conical perforation has an external diameter of 16mm and an internal diameter of 8mm. The inner edges are ragged, but this appears to be recent damage. There are also some body sherds with a red-brown oxidised surface and a plain rim with an internal chamfer, and body sherds with grey surfaces that were smoothed despite the presence of large angular flint inclusions. The upper fill contained body sherds and a single flat-topped rim sherd from a thin-walled vessel, 6mm thick, containing sparser and smaller flint, fabric D2.

The fill of pit H[382] contained a crudely-shaped everted rim of a neckless vessel, with walls 6mm thick (Fig 2.26, <P3>). The fill of pit H[403] contained a thin-walled rim sherd, 4mm thick, with an internal chamfer, in the finer fabric containing finely-crushed flint, and there is a similarly fine chamfered rim from pit H[691].

The upper fill of pit H[482] produced a single sherd, weighing 15g, while lower fill produced *c.*65 sherds, weighing 540g, which come from at least two vessels. One of these vessels was of fabric D1 which had a high density of mineral inclusions and also grog, forming a grey core and orange-brown surfaces. There is also a single sherd from a rounded boss belonging to this vessel. The second vessel had a light grey core and surfaces, and contained a lower density and smaller inclusions of flint and quartz (fabric D2). In both cases, the recovered pottery comprised plain body sherds and pieces from the flat bases.

Table 2.2: Quantification of middle/late Bronze Age pottery, Site H

Fabrics	**Totals**		**Fabric D1: Coarse flint**		**Fabric D2: Fine flint**	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	452	3314g	424	3060g	28	254g
Percentages	-	-	93.8	92.3	6.2	7.7
Average sherd	-	7.3g	-	7.2g	-	9.1g

There was little else in the way of diagnostic features from other smaller groups. A rim sherd from posthole H[494] is flat topped with transverse fingernail impressions (Fig 2.26, <P4>), and a residual rim sherd has an internal chamfer.

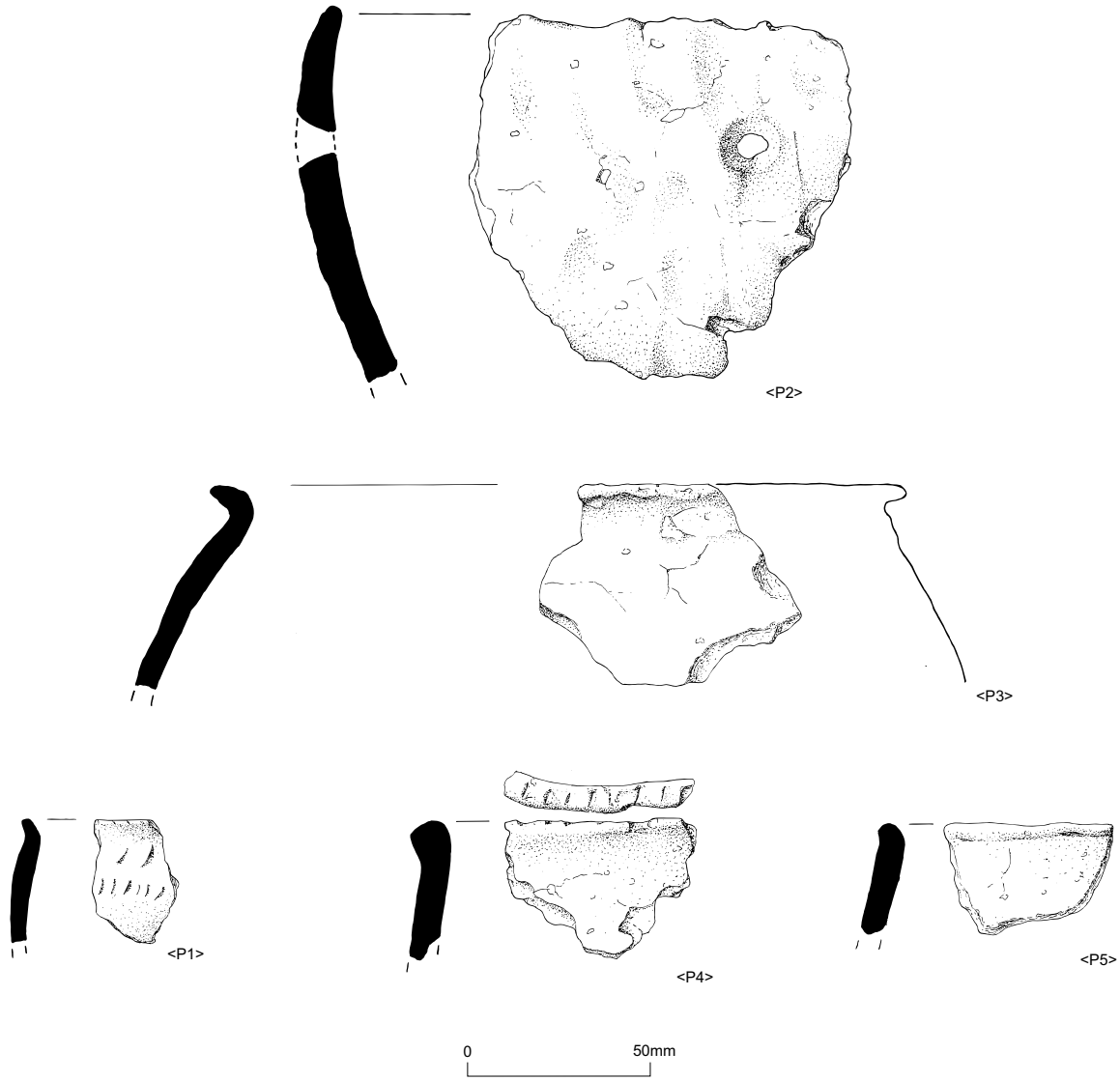


Fig 2.26 Middle–late Bronze Age pottery, Site H, 1–5

Residual flint-gritted pottery came from late Iron Age and Roman ditches including a straight-sided vessel with a rounded bead rim, uniformly grey with smoothed surfaces (Fig 2.26, <P5>).

Pottery from Site C

A general watching brief on the western dumbbell roundabout of M1 Junction 11a identified a cluster of seven pits towards the north-east edge of the stripped area (Figs 2.1 and 2.17). Six pits within this group produced a total of 94 sherds (1.4kg) of pottery, with individual pits producing between 30–770g. The fabric of the material is consistent; all sherds contain dense angular flint, which often protrudes through the surfaces. The external surfaces range from light brown to orange-brown and most often grey-brown in colour, with the internal surfaces darker brown to grey-brown. The vessels are quite thin-walled but the majority of the assemblage comprises only plain body sherds. However, the largest group from pit C[2006], 22 sherds (0.77kg), also contained sherds from a flat base and a simple upright rounded rim suggesting that the vessels were a simple barrel shape (Fig 2.27, <P6>). There is a flattened rim, and a flattened and slightly thickened rim from pit C[2009].

Pottery from Site G

Pottery containing dense angular flint was uncommon at Site G (Fig 2.1), and only two small pits and a posthole produced assemblages containing exclusively coarsely flint-gritted fabrics that may be contemporary with the dense cluster of early pits at Site H.

The fill of pit G[1028] contained 16 sherds (175g) of pottery, largely from a single vessel with a weak shoulder and a long neck, 45m high, with an upright rim that was 5mm thick, but which is abraded and damaged. The sherd has remnants of fingertip

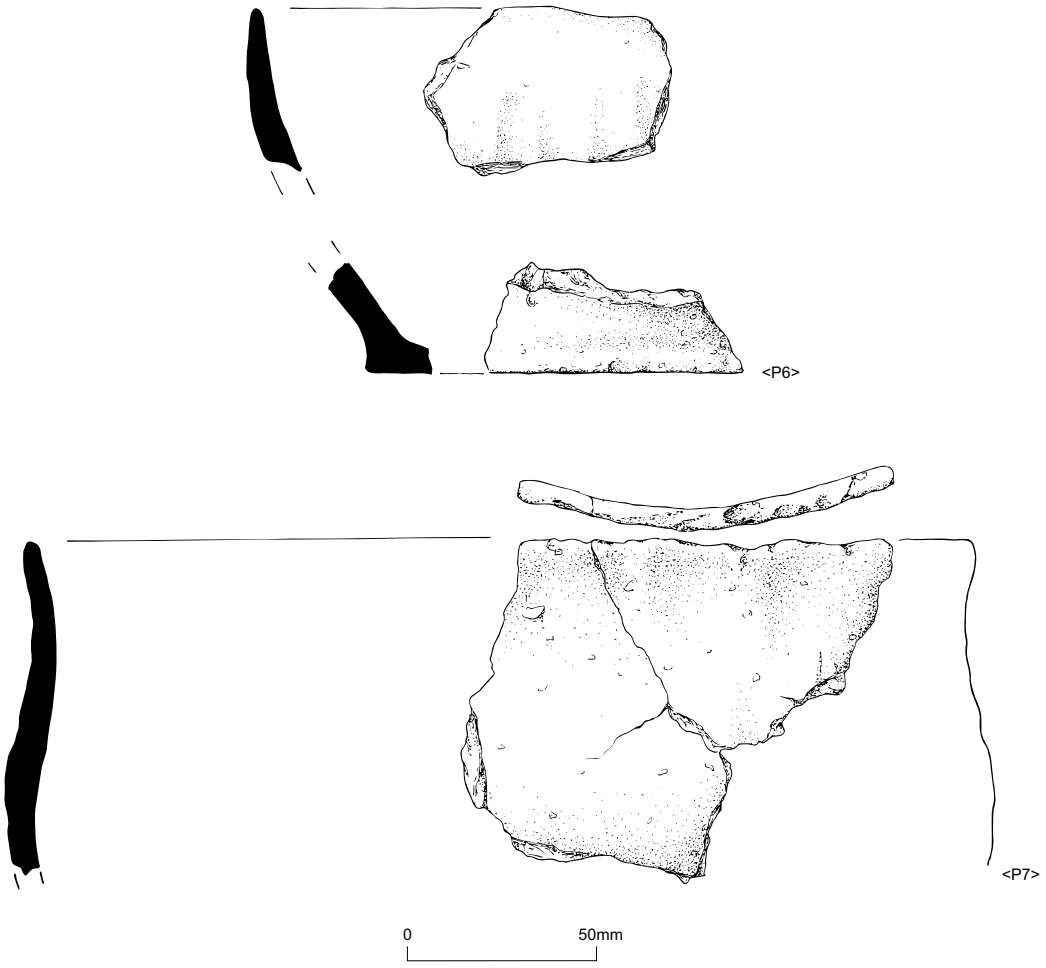


Fig 2.27 Middle–late Bronze Age pottery, Sites C (6) and G (7)

impressions (Fig 2.27, <P7>). Pit G[1275] contained 10 sherds (15g), all from a single vessel containing angular flint.

Posthole G[1831] contained sherds from the base of a vessel with black surfaces containing dense angular flint. This posthole cut the fills of a middle Iron Age pit, G[1829], and so the Bronze Age pottery is definitely residual. Occasional single sherds containing flint occurred as residual items within contexts of the early, middle and late Iron Age.

POTTERY FROM SITE M

There is a plain body sherd (30g) in a fabric containing angular flint, grey with a light brown outer surface that is of probable middle–late Bronze Age date from pit M[44], which is an isolated pit at Site M.

RESIDUAL POTTERY

There are only nine sherds (59g) from Site Q, all from flint gritted vessels, and all with oxidised surfaces. Seven of these sherds constitute the only pottery from ditch Q[1106], but as these weigh only 19g, it is likely that they are residual in that context.

Scattered contexts from Site F produced small quantities of residual prehistoric pottery, weighing 222g. The fabrics include angular flint, dated to the middle–late Bronze Age, sandy wares of broad Iron Age date and a sherd of shelly scored ware in a fabric containing grog, most likely to date to the late Iron Age, 1st century BC.

CATALOGUE OF ILLUSTRATED POTTERY (FIGS 2.26 AND 2.27)

<P1> Rim with internal chamfer and two surviving rows of near vertical fingernail impressions, D2, H[11]
<P2> Closed bowl with tapered rim and a perforation, D1, H[355]
<P3> Roughly shaped everted rim, D1, H[382]
<P4> Flat topped rim with transverse fingernail impressions, D1, H[494]
<P5> Straight-sided vessel with a rounded bead rim, D1, H[587]
<P6> Upright rounded rim and flat base, D1, C[2006]
<P7> Long necked jar with upright rim, vD1, G[1028]

DISCUSSION

Earlier prehistoric pottery across much of Bedfordshire and Cambridgeshire is broadly characterised by fabrics containing varying sizes and densities of angular flint. This practice stretches back into the Neolithic, and includes, among others: a middle Neolithic Peterborough Ware bowl from Tempsford Park, Bedfordshire (Chapman 2005, 49); a small pit group of Peterborough Ware vessels from Potton Road, Biggleswade (Chapman 2011a); and a much larger assemblage of Peterborough Ware from pits at Salford (Dawson 2005, 14-16 and Slowikowski 2005, 95-96). At the latter site there were smaller associated quantities of late Neolithic Grooved Ware and early Bronze Age Beaker pottery, with these wares containing a lower density of finer flint (Slowikowski 2005, table 3.2).

This potting tradition continued into the late Bronze Age/early Iron Age. At Fairfield Park, Stotfold, Bedfordshire, the late Bronze Age assemblage comprised 54.3% coarse flint and 41.3% sand and flint, leaving just 4.3% (two out of 46 sherds) in a coarse sandy fabric free of flint (Edwards 2007, 64-68, table 3.6). The late Bronze Age/early Iron Age assemblage is a little more mixed, with coarse flint at 50.0%, fine mixed flint at 18.8% and sand and flint at 6.3%, with the remaining quarter of the assemblage (24.9%) by sherd count comprising sandy fabrics (Edwards 2007, 64-68, table 3.6).

At this site the early Iron Age and middle Iron Age assemblages still contained a small proportion of fabrics containing coarse flint, at 1.3% and 0.3% respectively, but at least a proportion of this is likely to be residual sherds from the earlier phases of activity, as it is clear that the use of flint, particularly coarse flint, within pottery fabrics was rare if not non-existent from around the middle of the 1st millennium BC.

The same pattern has been seen on the A5-M1 sites, where it is argued that the occasional occurrence of flint-gritted sherds in the middle Iron Age deposits is as residual material derived from disturbance of earlier pits or surface deposits, and is not indicative of a continued use of flint within the middle Iron Age pottery tradition. In support of this argument is the fact that these sherds match the physical characteristics of the earlier pit groups, in terms of inclusions, colour and surface texture.

CHARCOAL

BY DANA CHALLINOR

Five charcoal samples were analysed from pits at Site H that contained pottery of the middle–late Bronze Age. The charcoal was poorly preserved, and in low quantities, but provided the opportunity for a broad examination of the domestic fuel use in the period. The results by fragment count are presented in Table 2.3. Seven taxa were positively identified; oak, hazel, blackthorn, Maloideae (hawthorn, apple, whitebeams etc.), purging buckthorn, field maple and ash. Much of the material derived from roundwood pieces and exhibited strong or moderate ring curvature. Some oak sapwood was recorded.

Table 2.3: Charcoal analysis of middle-late Bronze Age pits, Site H

Pit	H[11]	H[100]	H[355]	H[382]	H[482]
Oak	6(s)	1	1	5	5(s)
Hazel	-	4(r)	2	3(r)	3
Alder/hazel	-	-	-	1	-
Blackthorn	10(r)	3(r)	14(r)	11(r)	18(r)
Maloideae (hawthorn etc.)	8(r)	20(r)	6	4(r)	11(r)
Purging buckthorn	1r	-	-	-	-
Field maple	-	2	1	-	1
Ash	-	-	2(r)	-	4
Indeterminate	2	-	4(b)	3	8
Totals	**27**	**30**	**30**	**27**	**50**

s=sapwood; h=heartwood; r=roundwood;
(brackets denotes some fragments only)

The composition of the charcoal indicated a high component of scrub/hedgerow taxa that would have grown on woodland margins, with blackthorn and Maloideae representing nearly 75% of the whole

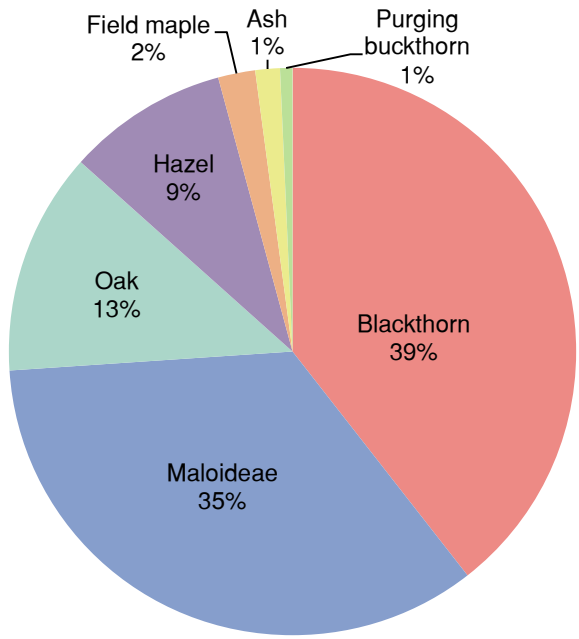


Fig 2.28 Charcoal composition from Bronze Age pits, 142 fragments

assemblage (Fig 2.28). Oak was present in all samples, but individually low in counts and there was also no evidence for mature wood being utilised. The taxonomic diversity of the assemblages is indicative of a range of fuel wood, rather than a single burnt out tree stump in a tree throw hollow. The charcoal was probably deposited as waste debris from domestic fires, although the paucity of material in some samples could suggest a more gradual accumulation of charcoal fragments from localised burning. The character of the charcoal, which contained significant evidence for roundwood and hedgerow/scrub type taxa, is consistent with the provision of firewood from local habitats within a relatively cleared landscape.

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS

BY VAL FRYER

An isolated pit, G[1298], produced scarce remains that included a moderately large piece of a charred organic material with an even porous texture and occasional larger voids. The exact nature of this material is unknown, but it is perhaps a fragment of charred food, perhaps burned bread. The pit also contained less than a dozen grains each of oats, barley and rye, with four times more of wheat. Crop contaminants mainly constituted small legumes and goosegrass.

Another isolated pit, Q[1114], is of note for the high density of cereals and weed seeds (Table 2.4). The cereal assemblage is of particular note, as it contains glume bases (a leaf-like structure) of both emmer and spelt, typically separated during threshing and thus found in processing waste. Stinking mayweed seeds are normally absent as the clay soils upon which they grow largely came under cultivation with the introduction of the Roman heavy plough, however, in this case there were two identical radiocarbon dates from the pit placing it firmly in the middle Bronze Age suggesting that some clay soils were cultivated during this period. Oats, barley and wheat grains are recorded along with a large number of cereals which are too poorly preserved for close identification. Wheat is predominant, which would fare better on the local clay soils, and there is a preference towards spelt wheat. None of the oat or barley grains are sufficiently well preserved for close identification. Seeds of common segetal weeds and grassland herbs are exceedingly few, with the most frequent representing small legumes and grasses. Black porous and tarry residues derived from the high temperature combustion of organic remains, are present at a low density.

The assemblage from pit Q[1114] is an isolated instance of Bronze Age cereal processing waste, which alone indicated crop cultivation in the immediate vicinity, despite a lack of contemporary settlement evidence.

Table 2.4: Quantification of the environmental flot, pit Q[1114]

Context		**Q[1114]**
Feature type		**Pit**
Type	**Common name**	
Cereals		
Avena sp. (grains)	Oat	1cffg
(awn frags.)	-	2
Hordeum sp. (grains)	Barley	30
Triticum sp. (grains)	Wheat	48
(glume bases)	-	14
(spikelet bases)	-	28
T. dicoccum Schübl	Emmer	-
(glume bases)	-	1cf
T. spelta L. (glume bases)	Spelt	44
Cereal indet (grains)	-	32
(detached embryos)	-	8
Herbs		
Anisantha sterilis L.	Barren brome	1cffg
Anthemis cotula L.	Stinking mayweed	1cffg
Aphanes arvensis L.	Parsley piert	1cf
Apiaceae indet.	-	2
Arrhenatherum sp. (tuber)	Onion-couch type	1cf
Asteraceae indet.	-	6
Atriplex sp.	Orache	1cftf
Brassicaceae indet.	-	2
Centaurea sp.	Cornflower	2
Chenopodiaceae indet.	-	2
Small Fabaceae indet.	Small legumes	48+62coty
Galium aparine L.	Goosegrass	2+8fg
G. mollugo type	Bedstraw type	2
Medicago/Trifolium/Lotus sp.	Medick/clover/trefoil	6+2cf
Plantago lanceolata L.	Ribwort plantain	4
Small Poaceae indet	Grasses	28
Rumex sp.	Dock	1+1fg
Sherardia arvensis L.	Field madder	2
Other plant macrofossils		
Charcoal <2mm	-	xxxx
Charcoal >2mm	-	xxxx
Charcoal >5mm	-	xx
Charcoal >10mm	-	x
Charred root/stem	-	x
Indet. culm nodes	-	2
Indet. seeds	-	20
Other remains		
Black porous/tarry material	-	x
Bone	-	x xb
Burnt/fired clay	-	x
Burnt stone	-	x
Marine mollusc shell	-	x
Mineralised faecal material	-	xcf
Small mammal/amphibian bone		xb
Sample volume (litres)		
Volume of flot (litres)	-	0.1
% flot sorted	-	100%

x = 1-10 specimens, xx = 11-50 specimens, xxx = 51-100 specimens
xxxx = 101+ specimens, + = present
cf = compare, fg = fragment, tf = testa fragment, b = burnt,
coty = cotyledon

Regionally, it is a valuable source of comparative data. Prehistoric pits elsewhere, particularly those from Site H were far less productive with none of the assemblages deemed worthy of study beyond basic assessment (Fryer 2016). Cereal grains/chaff and seeds of common weeds and wetland plants were present but in low quantities that were often very fragmented and/or abraded. Combusted grains were severely puffed and distorted. In general, wheat occurred most frequently, with the majority of the identifiable grains being of an elongated 'drop' form typical of spelt with only occasional occurrences of emmer.

SAMPLES FROM PIT ALIGNMENTS

Two undated pit alignments from Sites M and P produced assemblages that were extremely small and sparse, and although charcoal flecks/fragments were recorded from wind dispersal, seeds were entirely absent and other remains were scarce. Most remains derived from post-depositional bioturbation, especially at Site P.

Whilst the excavated features were situated within an active Bronze Age and early Iron Age landscape, which in the case of Site M preceded the development of a long-lived Iron Age settlement to the north (Site G), there were insufficient remains to make clear statements about the role of the pit alignments.

FAUNAL REMAINS
BY REBECCA GORDON

Very little animal bone was recovered that is securely dated prior to the early-middle Iron Age and most of it was fragmentary, scrappy or splintered, making identifications difficult. Five bones were recorded from the Bronze Age features, which included a cattle mandible fragment, a sheep/goat maxillary tooth and three horse maxillary teeth. Recent evidence for domestic horse indicates they became more widespread by the late Bronze Age (Bendrey 2012; Bendrey *et al.* 2013, 91). Archaeological and zooarchaeological data suggests they were used for transportation; employed in warfare; and incorporated into ritual ceremonies (Bendrey 2010, 12-15). Although earlier evidence for the horse domestication remains disparate and ambiguous it is clear their growing presence would have triggered a fundamental shift in the social economy of Britain's prehistoric societies (Bendrey 2010, 16; Bendrey 2012).

There are seven bones from the middle Bronze Age pit at Site Q, which comprises six cattle mandible and loose teeth fragments, and one loose tooth from a sheep/goat.

At Site C a single pit, C[2023], produced two articulated/semi-articulated partial calf skeletons and eight isolated sheep/goat bones. The partial skeletons represent a primary deposition of a late Bronze Age or early-middle Iron Age date. Butchery evidence was noted on a calf metatarsal, cuboid and astragalus, which is indicative of skinning. Cut marks were also noted on a cervical vertebra and distal epiphysis of a humerus. It was difficult to confirm whether butchery evidence was present on one or both of the skeletons as they were retrieved and bagged together during the excavation. This made it challenging to match the elements with butchery marks to a particular specimen. The mandibular tooth wear data suggests both animals were between 8–18 months at the time of death.

The undated pit alignment at Site M produced splintered fragments from two pits that could not be identified to species.

MOLLUSCS
BY VAL FRYER

Seven samples were analysed from the Site M pit alignment and the later boundary ditch that lay parallel. All of the assemblages contained the shells of marsh/freshwater slum molluscs, suggesting that the location was wet or seasonally inundated. However, whether these particular microhabitats were extant within the pits, or whether they are intrusive as a result of being located on the flood plain close to the stream, remains unclear. The paucity of anthropogenic detritus within these assemblages indicates that the features were peripheral to any central focus of habitation activity.

None of the samples from the Site C or Site H middle–late Bronze Age pit and posthole groups produced snail shells, and those from Site P were entirely of intrusive origin.

RADIOCARBON DETERMINATIONS

Samples were chosen based upon suitability, as defined by specialist analysis and the availability of material. Radiocarbon analysis was necessary in order to answer specific target objectives as outlined by the assessment. In particular two objectives were relevant to this period (Brown 2016, 93): to associate diagnostic pottery from secure contexts with scientific dates, and to confirm the anticipated Bronze Age date of pit clusters from the head of the valley (Sites C and H). The results of these determinations are provided in Table 2.5 and are illustrated with the radiocarbon curve in Fig 2.29.

Table 2.5: Bronze Age radiocarbon determinations

Laboratory & Sample no.	Context	Sample details	C13/ C12	Conventional radiocarbon age BP	Calibrated BC intercept *68% confidence* 95% confidence
Beta-446418 A5M1/H10	pit H[11]	Hazelnut shell	-24.7	2990±30 middle BA	1220 *1260–1195/1140–1130* **1365–1360/1290–1120**
Beta-446419 A5M1/H12	pit H[13]	Hazelnut shell	-26.8	2870±30 late BA	1020 *1105–1100/1080–1065/1055–1005* **1120–970/955–940**
Beta-456913 A5M1/G1027	pit G[1028]	animal tooth	-22.3 +4.6	2770±30 late BA	910 *970–960/930–895* **1000–835**
Beta-458334 A5M1/G1295	pit G[1298]	Hazelnut shell	-23.1	3120±30 middle BA	1410 *1425–1390/1335–1320* **1440–1370/1355–1300**
Beta-458341 A5M1/Q1109	pit Q[1114]	charcoal (roundwood)	-22.4	3130±30 middle BA	1415 *1430–1395* **1450–1380/1340–1305**
Beta-458342 A5M1/Q1112	pit Q[1114]	cereal (barley)	-22.7	3130±30 middle BA	1415 *1430–1395* **1450–1380/1340–1305**
Beta-456909 A5M1/C2004	pit C[2006]	animal long bone	-21.5 +5.5	2870±30 late BA	1020 *1105–1100/1080–1065/ 1055–1005* **1120–975/955–940**
Beta-446428 A5M1/C2017	pit C[2020]	animal tooth	-22.9	2740±30 late BA	895 *910–835* **970–960/930–820**
Beta-446417 A5M1/M100	pit M[102]	charcoal (roundwood)	-28.0	3500±30 early BA	1875/1840/1820/1795/1780 *1885–1745* **1900–1745**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration

As stated in the first agenda above, features containing pottery assemblages that might be suitably complemented by scientific dating were selected. The diagnostic pottery sherds were targeted, particularly those illustrated in Figures 2.26–2.27. Of these seven sherds, four came from contexts with sufficient material suitable for dating purposes.

The sherd from pit H[11] with incised decoration (Fig 2.26, <P1>) is associated with a date towards the end of the middle Bronze Age, 1365–1360/1290–1120 cal BC (95% confidence, 2990±30BP, Beta-446418).

Attempts to date the sherd from pit H[355] (Fig 2.26, <P2>) using charred wheat grains from the same context failed, as these were modern contaminants (Table 1.3). A fair selection of seeds were recorded from pit H[355] during assessment (Fryer 2016, table 61), and this intrusive result could not have been predicted. It also casts doubt on the reliability of small seed assemblages for dating purposes in the absence of suitable charcoal or animal bone.

A sherd from pit C[2006] with upright rounded rim and flat base (Fig 2.27, <P6>) is associated with a late Bronze Age date, 1120–975/955–940 cal BC (95% confidence, 2870±30BP, Beta-456909). Another sherd from pit G[1028] from a long-necked jar with upright rim (Fig 2.27, <P7>) came from a context similarly dated to 1000–835 cal BC (95% confidence, 2770±30BP, Beta-456913).

Pit G[1298] has returned a middle Bronze Age date from hazelnut shell, which is probably residual. The bulk of decorated pottery from the pit conforms to other illustrated examples of the early Iron Age recovered from pit clusters at Sites D and G (Chapter 3).

All of the scientific dates in Table 2.5 are considered to be reliable, although the charcoal from the pit alignment at Site M, which has returned an early Bronze Age date,

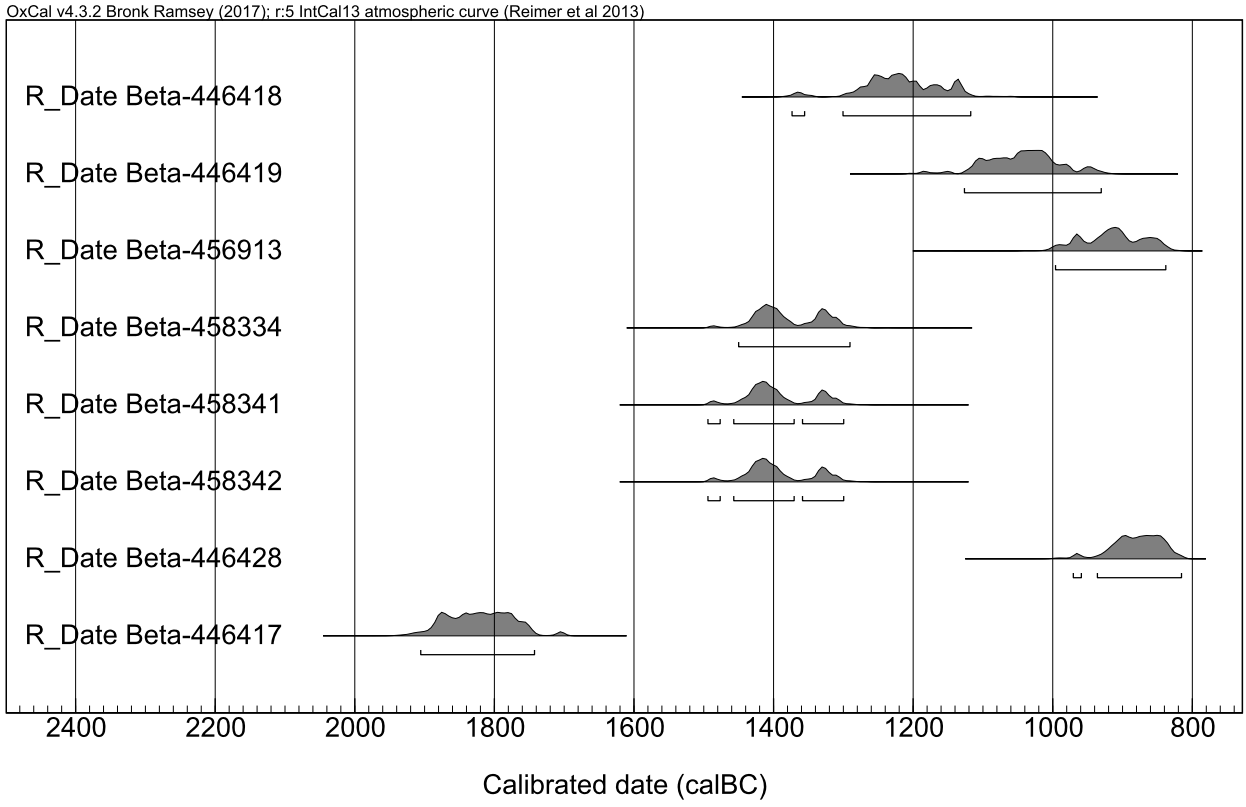


Fig 2.29 Radiocarbon determinations for the Bronze Age

is probably residual given that it is significantly earlier than most pit alignments. Much of the pottery that was assessed and thought to be Late Bronze Age/early Iron Age has tended to be at the earlier end of the date range.

The data in Table 2.5 also includes dates associated with crop processing waste from an isolated pit Q[1114] at Site Q, previously assumed to be part of the late Iron Age settlement. Stratigraphically the pit was cut by a late Iron Age/Roman enclosure ditch. Two samples were selected from the pit in order to date the crop processing waste, including both roundwood charcoal and charred barley, since many cereal grains from the initial batch analysed from Site G had returned a medieval date. This larger seed assemblage was from a secure context below the cut line and demonstrates that a minor portion of scattered independent features belong to a low level background of Bronze Age activity in the valley that incorporated arable farming.

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

There are few known archaeological sites in Bedfordshire of Neolithic or early Bronze Age date. The balance of known sites is distorted in favour of ceremonial or funerary monuments focused upon the principal river valleys, including the River Great Ouse, of which the Ouzel Brook is a tributary. Few of these sites have been confirmed by archaeological investigation; many having been identified solely by flint scatters from fieldwalking or as cropmarks in aerial photography. However, archaeological investigations at Biddenham Loop have taken major steps in addressing this problem (Luke 2008; 2016). The fieldwork has shown that flint scatters are generally not associated with sub-surface features. Buried land surfaces are largely unknown, except where they form part of the alluvial sequence on the main flood plains, such as those identified at Broom, Central Bedfordshire (M Brittain pers comm, CBA conference, March 2017). Other classes of archaeological activity, including settlement remains, are underrepresented and are difficult to detect; they are assumed to be physically separated from the ceremonial and funerary sites. Isolated or scattered pits are often found during investigation of sites dominated by features from later periods, but it is unusual for these Neolithic or Bronze Age features to have structural elements or a detectible pattern of distribution. A localised concentration of Bronze Age finds including axes and spears, comes from the vicinities of Toddington, Fancott and Chalton (AA 2003c). Settlement activity has not yet been found associated with these finds locations. A late Neolithic causewayed camp has been identified at Maiden Bower, Sewell, less than 1km to the south, potentially with occupation extending through the Bronze Age (Hamilton and Pollard 1994). Pit alignments appear to be emergent as a precursor to other large landscape boundaries and divisions from the late Bronze Age

Table 2.6: HER data for the Neolithic and Bronze Age periods

Age noted by HER	HER Ref	Description	NGR	
Prehistoric	16593	Cropmarks of enclosure, south of Chalton village	503100	226000
Prehistoric	16594	Cropmark enclosure, west of Hillcrest, Chalton	503400	226000
Neolithic	10843	*Thiodweg* (Theedway or Ede Way)	498690	225770
Neolithic	15810	Arrowhead, near Toddington Road	501000	225800
Neolithic	19939	Human burial	502840	225670
Neolithic/Bronze Age	15809	Neolithic/Bronze Age occupation, Edeway, near Chalton	502700	226000
Neolithic/Bronze Age	16090	Neolithic/Bronze Age flint scatter, Chalton Cross Farm	503600	225900
Neolithic/Bronze Age	16091	Neolithic/Bronze Age flint scatter, Chalton Cross Farm	504100	225100
Neolithic/Bronze Age	16092	Neolithic/Bronze Age flint scatter, between Luton Road and M1 motorway	504100	225400
Bronze Age	18292	Possible Bronze Age and medieval pits	499900	224700

onwards, but are often notoriously hard to date as they tend to lack a quantity of suitable material.

There are very few prehistoric sites recorded by the Historic Environment Record (HER) within the 500m wide corridor around the A5–M1 link road (Fig 2.30, Table 2.6). Even fewer among these have been tested by archaeological fieldwork in recent years.

FLINT SCATTERS

Late Neolithic/early Bronze Age struck flint was found at different locations near the eastern end of the A5–M1 link road. Worked flints were recovered in the vicinity of the M1 compound and to the south of the M1 Junction 11a on both sides of the motorway during fieldwalking for the M1 Junction 10–13 widening scheme (BCAS 1993; Mudd 2006a; Burrow 2008a). Late Neolithic/early Bronze Age flint scatters and undated cropmarks were identified from records to the south of Site P during preliminary assessments for the A5–M1 link road, prior to the reconnaissance surveys.

Much of the work prior to the M1 improvements and the A5–M1 link road were the product of voluntary fieldwalking by Manshead Archaeological Society (Hudspith 1991). Worked flint was found on a ridge top north-east of Site P and included broken blades, flaked axe fragments, scrapers, waste flakes and a few cores which were interpreted as the remnants of a seasonal hunting encampment (HER15808). A barbed and tanged arrowhead has also been found previously to the north of Calcutt Lodge, near the Toddington Road (HER15810). Other smaller scatters and isolated flakes occurred along the ridge and valley floor. Another late Neolithic/early Bronze Age site was found south-west of Chalton represented by dense scatters of flint (HER15809). Flint scatters were recovered to the south-west of Chalton Cross Farm (HER16090) and to the south-east, adjacent to the M1 (HER16091). A geophysical survey between Luton Road and the M1 fieldwalking identified two undated linear anomalies, which are indicative of ditches, possibly part of an enclosure or former field boundary (HER16092).

OTHER SITES AND MONUMENTS

The Icknield Way is a possible prehistoric trackway that crosses the A5–M1 link road at NGR TL 00500 25320. Large sections of this route have been subject to more recent alteration; however, this long distance track is claimed as the oldest road in Britain, also dubbed the Great Chalk Way (Gore 1912; Harrison 2003). The full route lies between Norfolk and the Dorset coast along the southern chalk formation of England, incorporating other prehistoric routes such as the famous Ridgeway from Overton Hill, near Avebury Henge to Ivinghoe Beacon in Buckinghamshire. From here the Icknield Way leads to Peddars Way near Thetford in Norfolk with the section through Bedfordshire following the northern edge of the Chiltern Hills.

Another trackway known variously as *Theodweg*, Theedway, Ede Way or the Salt Way (HER10843) is mentioned by Saxon documents, but its actual origins are unknown and may even be contemporary to the Icknield Way. Theodweg crossed Bedfordshire for 12 miles and diverged from the Icknield Way, north of Luton, at the foot of Warden Hill. From there it continued westwards towards the River Ouzel, crossing it south of Linslade at *Yttingaford* (now Tiddenfoot).

Human remains and late Neolithic pits were found to the north of Thornhill Lower School during evaluation of the Houghton Regis North Development. An inhumation lay in a crouched position, typical of a beaker period burial, and it is likely that the nearby pits are of a similar date (AA 2012a; HER19939). Other flint-tempered pottery sherds were also found near Calcutt Lodge (HER19937), but their abraded nature suggests they were residual finds.

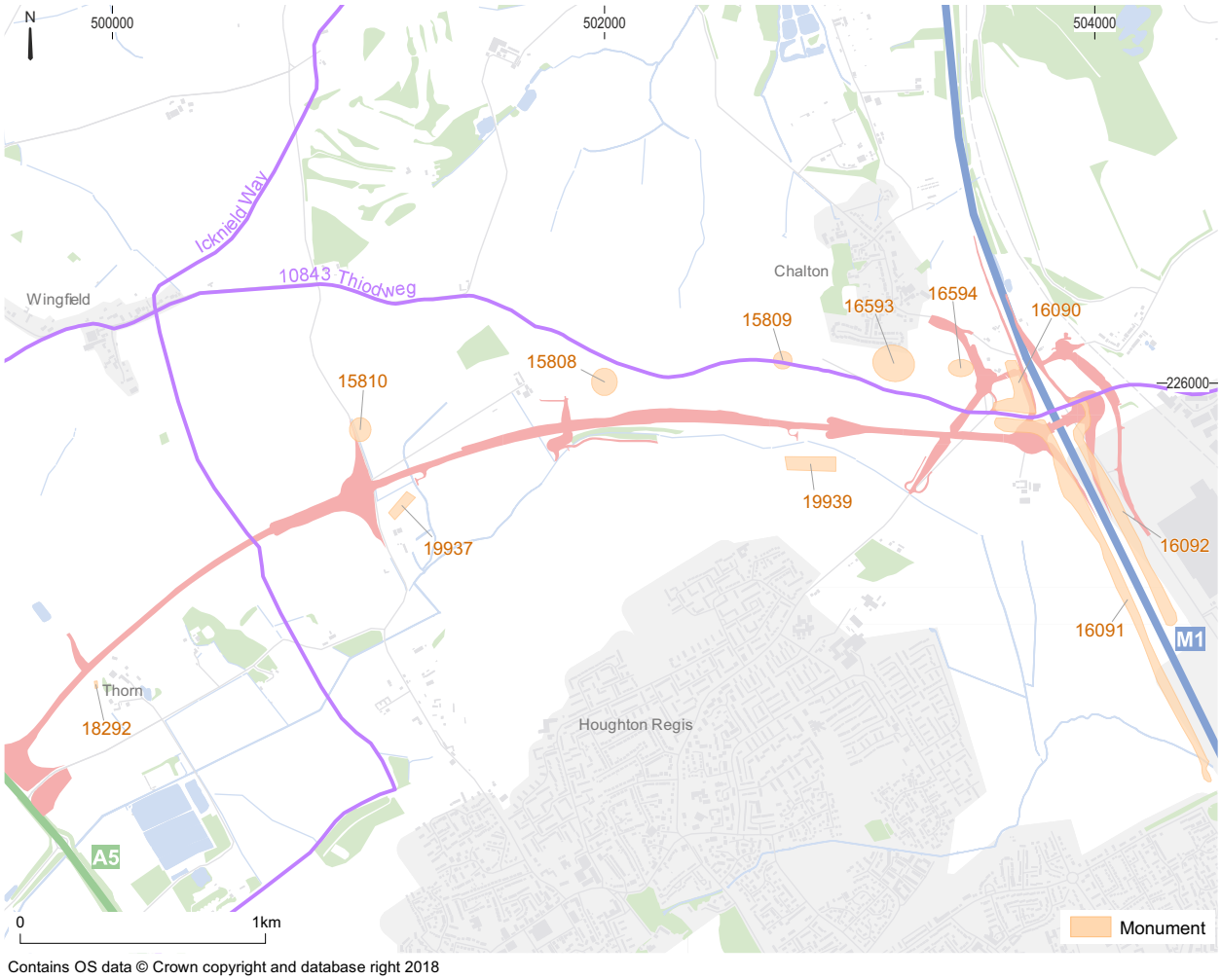


Fig 2.30 HER data for Neolithic and Bronze Age sites

An isolated pit containing flint-tempered pottery was recorded to the west of Site Q during trial trench evaluation for the A5–M1 link road (Burrow 2008b, fig 2, T8; HER 18292). It was suggested that undated gullies containing limestone-tempered pottery sherds gave evidence for possible Bronze Age occupation on the site (ibid, fig 3, T9; EBD666). However, these have since been dated to the late Iron Age (see Chapter 4).

POST STRUCTURES AND ASSOCIATED POSTHOLES

A large group of pits and postholes at Site H included two possible four-post structures and one six-post structure, attributed to the middle–late Bronze Age. A smaller cluster of similar features, but with less pottery, lay to their north-east and included a further six-post structure. Scattered isolated large pits contained darker charcoal-rich fills and the larger portion of the pottery. Traditionally, rectangular and square post arrangements of this kind are generally interpreted as stores (Cunliffe and Poole 1991), possibly for grain and other foodstuffs, with a raised floor, or sometimes as drying racks for hides (Matthews 1976). Such interpretations perpetuate a traditional view of the later Bronze Age/early Iron Age economy in lowland Britain (Piggott 1958; Bowen 1969). There is no evidence on which to construct the argument to support these hypotheses at Site H. A variety of alternatives have been considered for Iron Age contexts by Ellison and Drewett (1971) and Knight (1984) that include such diverse things as watch towers, chicken runs and excarnation platforms; all of which are equally difficult to address from the evidence. Stead (1968) observed that four-post structures are often found on the fringes of settlement, and yet at Site H there is no evidence of contemporary settlement at all. Given that these examples are also in some cases as much as 800 years later than the features from Site H, it seems better to address a new case study.

A more recent explanation was formulated during excavation at Biddenham Loop (Luke 2008), where two- and four-post structures were interpreted as the surviving entrances to post-built roundhouses, where the full circuit of the structure no longer survived. This is plausible and some of the satellite postholes from Site H in structural groups HS1, HS2 and HS5 could potentially have formed part of such a hypothesized perimeter. However, the alignments of the four-post

structures from Site H are all different. Complete roundhouses have entrances that are usually consistent with an easterly or south-easterly aspect throughout the late Bronze Age and Iron Age, so to propose multiple different orientations without a complete structure is spurious.

There is a distinction between the four-post and six-post structures. The six-post structural group, HS3, was located in the area between the four-post structures, HS1, and HS2 (Fig 2.2). If they were contemporary, their spatial settings appear related and it is apparent that at least some of the multitude of surrounding postholes formed linear arrangements between these structures. Lines of relatively small postholes suggest fences and there seems little else that could leave the same footprint in the archaeological record. However, the distance between postholes was generally up to 3.0m and in row HF1, extended up to 6.0m. These wide spaces would have necessitated large, and in some cases double width, panels. The height of the panels is unknown and smaller posts could have been inserted between them that need not have been as substantial as the main settings.

The potential use of panel fences suggests that the land was divided loosely in a manner that required standing physical barriers. Land divisions marked by narrow boundary ditches would have been more easily traversed by man and beast, and driving herd animals along routeways marked by two ditches may result in a number of livestock ending up in the ditches themselves. Fences, panels and raised banks are, however, effective methods of corralling and controlling most livestock, except perhaps goats.

The location of the four-post structures in relation to these fences is curious as they sit at the ends of the fence lines and at the corners. The fences are not, as might be expected, laid out in a regular fashion to enclose open spaces, but instead they funnel and restrict movement. They are also limited in extent to a small area of the site. A similar interpretation in relation to livestock movements has been published for roughly contemporary sites at Fengate, Peterborough (Pryor 1996); albeit this deals with possible ditch/bank droveways.

At Site H this movement between the rows HF1 and HF3 is funnelled towards structure HS1. In the case of the near parallel rows HF3 and HF4, the west end funnels towards structure HS2. This route also opens out on the north side past six-post structure HS3, but a short stretch of three postholes in the central part of the gap may signify that it could also have been closed off. Potentially at least some of the panels might have been moved to create gateways to free the movement of animals, whilst the four-post structures seemed to lie at choke points. Herdsmen often need to restrict an animal's movement for treatment, inspection, milking, shearing and so forth and this may offer another alternative to the interpretation of four-post structures. There are, after all, a variety of actions that could leave a rectangular arrangement of four postholes in the ground. There is no evidence for raised floors and four-post structures need not necessarily have been buildings. A means to test the theory on site, given a similar situation, would be comparative phosphate analysis between the four-post structures and other more widely dispersed contemporary features that might provide the signature for dung concentrations. These would be expected to focus on choke points and holding areas leading into them.

By comparison the six-post structure, HS3, stands quite separately from the others. It is significantly larger than the other six-post to the north-east, HS5, which is proportional in size to the smaller four-post structures, generally about 2.0m by 2.0m or slightly larger. Structure HS4 is also attached to a possible fence line, and so the number of posts does not seem to be what is important in this distinction, so much as the area over which they are distributed and their relationship to surrounding linear patterns of postholes.

Notably, the distribution of pottery, ignoring for a moment the largest pits, is focused around the four-post structures. In the context of storage and animals, the practice of milking could have employed pottery vessels, amongst other possible inorganic materials, which would have been subject to breakage during their use life. Furthermore, whilst a largely tame animal may allow itself to be milked, an animal let to roam free for much of its time is far less docile and would probably need to be penned in. This could be tested by analysing the vessels to see if they were used for collecting milk, which would be possible by organic residue analysis of the sherds collected from four-post structures. A comparison with those from isolated pits would also be useful, especially if they had a different function. The signatures of animal lipids are quite different from those for honey, wax and vegetable fats, and there is a notable difference between fats from ruminant species, such as cattle/goat/sheep and non-ruminant, such as pig. The fats from ruminant species are also sufficiently distinguishable that it may be possible to determine whether these residues came from use of the carcass or from dairying (HE 2017).

Another distinction of the six-post structure, HS3, was the lack of pot sherds nearby. Indeed there was a general absence of finds of any kind. Neither were there any substantive seed assemblages or quantities of charcoal; the fills of these postholes were quite sterile. Such an absence of waste suggests the structure was not connected with domestic activity. In the context

of animal husbandry, a small shelter might be likely, or a storage function could still have been possible. The ratio of larger six-post structures to four-post structures (or those of similar size) may be significant, as the ratios from comparable sites at Broom Quarry (Cooper and Edmonds 2007, 106–115) and Stotfold (Keir and Starke 2011) are similar.

There are very few examples of Bronze Age post structures known in Bedfordshire, indeed the period itself is not well investigated across the county with much of the work focused on funerary archaeology or ring ditches. Well-documented post structures are overwhelmingly found in Iron Age contexts, and most of these are either undated or associated with middle and later Iron Age sites. Occasional examples buck the trend, producing adequate pottery dating for them to be considered comparable. However, at the same time it is also apparent that most early Iron Age settlements have a later Bronze Age component amongst posthole groups that is not easily identified and may include post-built structures.

Broom Quarry, Toll House (Cooper and Edmonds 2007, 106–115) produced middle–late Bronze Age pottery. There were five four-post structures and one six-post structure of similar proportions to those at Site H. The six-post group was of a smaller size. Rows of posts were also arranged across the site, and spaced at broadly similar intervals to Site H. The marked difference was that Toll House had a single 10m diameter post-built roundhouse as the focus of the activity, with an eastward facing entrance and a linear east–west ditch on its south side. The post structures lay both to the north and south of the roundhouse and were eccentric to the course of the ditch. They were, however, aligned with the rows of postholes and unlike Site H where they lay at the convergence of rows, these were situated at points along the rows or were separated from them. Whilst the traditional granary interpretation was cited, the excavators drew the conclusion that there was no evidence to support the view (*ibid*, 111). A study of the pottery distribution in the east–west ditch showed a greater concentration in close proximity to the roundhouse and there was substantive domestic waste to support its interpretation as a domicile. The wider distribution was similar to that of Site H, with smaller pottery groups focused upon the four-post structures and none on the six-post structure (*ibid*, fig 4.23). Two rows of postholes to the south of the roundhouse were roughly parallel, although an insufficient area was exposed to determine if these represented a convergence in plan. The overall impression is one of controlled movement across the site and some strong similarities with Site H are evident.

Amongst the multi-period settlement activity at Stotfold it was evident that at least some middle–late Bronze Age activity was present (Keir and Starke 2011). Full analysis has yet to be published but the initial assessment suggests that the area contained at least one sub-circular ditched enclosure, 26m by 22m in extent, and another rectilinear enclosure, 90m wide. For the most part the Bronze Age activity was unenclosed and included at least three four-post structures in one part of the site, and another two/three further away, together with one six-post structure. The four-post structures were of similar size to those at Site H, and once again the single occurrence of a six-post group among the four-post structures is an inexplicable curiosity that marks a different, but important, component of the activity. The sheer density of later activity across the site meant that at assessment no linear rows of posts were defined. Examination of the site plans show that there were multitudes of undated postholes amongst which such alignments may be hidden.

At Totternhoe Knolls, 2km to the west of Puddlehill, Bedfordshire, there were timber postholes in pairs and groups of three, excavated in the vicinity of a 7m diameter post-built hut circle with fire pit and adjacent drying racks for curing hides (Matthews 1976, 36-40 and fig 1). There were ten pairs of postholes, including one set of four, and six groups of three, each set in a triangle.

At Salford Quarry the majority of the site was Iron Age, and the end publication places nine of the four-post structures within the early Iron Age (Dawson 2005, 40-43). However, these were not the only four-post structures visible in plan (*ibid,* fig 2.3) and according to the assessment of the site there were at least four that were associated with middle–late Bronze Age pottery, Structures 16a and 42–44, (BCAS 1995). All of these appeared proportional to those at Site H but differ little from Iron Age examples. Once again the sheer density of later occupation across the site made identification of posthole alignments difficult and only one is presented, which is well dated to the middle Iron Age and seems completely unrelated to the four-post structures (Dawson 2005, fig 2.22).

Four-post structures are, therefore, still an enigma but the present work provides a possible route for further interpretation.

Isolated and scattered pits

There were several pits at Site H that produced significant middle–late Bronze Age pottery assemblages of moderate size for the period (Fig 2.10). Accompanying these were charred seeds and charcoal in low quantities, which included oats, barley and spelt wheat, but also grasses, clover, brome, dock and bindweed. A few snails were present that were open country species. The pits were unlined, there was rarely scorching of

the sides, and no smaller features were arranged at the edges. Occasional burnt stones were noted, which are often associated with heating water. None of the pottery sherds are from overfired vessels, which might have suggested clamp kilns. The pits contained waste material, possibly from domestic activity, but there was no domestic structure from which it could originate and it is thought therefore that the waste was cleared from possible temporary encampments.

Only two of the pits at Site H were radiocarbon dated and whilst these confirmed the middle–late Bronze Age period of activity, they barely overlap. Much of the activity is likely to have been intermittent across a period of up to 425 years or more. The pits were not closely associated with the posthole arrangements, and appear to represent separate periods of activity. Where they did coincide the pit group, HP1, lay astride the alignment of possible fence line HF4, indicating the two groups were probably chronologically separate. However, as radiocarbon dates have shown, the two larger pits in HP1 themselves are from separate events at the same location. The grouping of the four pits in HP1 is significant only in that the burnt stone and scorched natural in the two smaller pits indicates they were probably used as hearths for pot boiling and heating water, with waste material discarded into the larger pit nearby. Although no other evidence of fire or burning was present, the widespread charcoal content of most pits indicated low temperature burning had occurred in the vicinity, if not within the pits themselves.

Further west along the Ouzel Brook valley Bronze Age evidence was patchy and although there were occasional pottery sherds, few were tied closely to contemporary features or deposits. There were four instances where features were identified and none of them had evidence of permanent contemporary settlement. The largest pits, from Sites Q and M, were steep-sided deep features that are considered to have been wells. Well Q[1114] preserved charred seeds; cereals that included oats, wheat and barley; and a variety of wild seeds, particularly small legumes as crop contaminants. Both wells were located at different points of a low terrace, which is roughly 1.0m above the watercourse. The smaller pits from Sites D and G are likely to have been used for fires, like the majority of dispersed pits at Site H. However, radiocarbon dates from three of the four pits in comparison with those from Site H continue to indicate completely separate periods of occupation (Fig 2.29).

As the late Bronze Age merges gradually into the early Iron Age the character and fabrics of the pottery assemblages take on aspects that note their chronological advancement. The pit group situated at Site C contained dumps of domestic waste, in the form of animal bone and pottery, indicating that some early occupation occurred on this well-drained hilltop where Sites C and H were investigated. The sites were suitably positioned between several accessible water sources, but no domestic structures were found near the pits. The radiocarbon dates suggest that at least some of the activity at Site C was broadly contemporary with that observed at Site H, with other activity following on later. This may represent a migration of focus but what is more likely is that sporadic and temporary middle–late Bronze Age and early Iron Age occupation came and went all over the hilltop for nearly 800 years before any tangible settlement occurred in the early-middle Iron Age at Site K.

Animal bone from the pits at Site C indicated stock farming was taking place in this landscape. Animals were most likely butchered, processed and consumed on site. Two calf carcases may suggest the butchering of immature livestock. The consumption of young animals would not be expected in a subsistence economy where there was greater benefit to rear livestock to maturity, particularly larger herd animals, but the calves may have died of natural causes or been killed to control population in a dairy herd, after which the carcasses were skinned. Meat and hides would not have gone to waste, but there remains no evidence to suggest this was a settlement site and such materials could more easily be cured and transported if processed promptly after death.

The occurrence of a significant quantity of pottery indicates cooking, storage of goods, and pot-related activities like mixing, washing and transportation, and this may indicate a degree of sedentism. Pottery vessels would have been a bulky domestic product, not easily carried, which might indicate the possibility of semi-permanent habitation. However, simple small pots could easily have been made and fired in surface bonfires intermittently by a nomadic group, evidence of which would not survive archaeologically. Furthermore, in a shifting semi-nomadic lifestyle it could be suggested that all resources were consumed before moving on, using lightweight containers derived from textiles and animal skins for small loads and with bulky, heavy pottery vessels being left behind.

PIT ALIGNMENTS

The two adjacent rows of roughly aligned north–south pits at Sites M and P were both situated on fairly level ground. They appeared to follow the rise of ground between the Ouzel Brook and the valley side. To the north of the pit alignments the land rises steadily.

At Site P there were two distinct rows of pits. The pit alignments differed slightly in character, but they appeared to form a boundary, possibly with one line replacing the other. They also possibly converged upon

two former standing trees, which marked a break in one alignment, PPL1, and the end of the other, PPL2 (Fig 2.20). This is considered as a natural crossing point and may have been deliberately chosen as a visual landmark. Stratigraphically it could be seen that the pits cut the tree disturbances, which suggests the possibility that the pits replaced the trees. Eventually the alignments seem to have been replaced by a ditch for at least part of the course as this followed the same alignment and terminated at the same juncture. The establishment of the linear ditch, although not continuous, formalised the southern extent of the alignment.

The close spacing between the pits and the presence of the gap at this point would suggest that, unlike other pervious boundaries, access for people and livestock through the boundary was controlled to certain points. An unusual offset arrangement of pits close to the crossing indicated a later attempt to close the gap, and the replacement by the ditch may also have controlled access.

The pits themselves differed slightly. Individual pits from Sites M and P were not the same; they varied in size and shape from sub-rectangular, oval or circular, with these shapes repeated in no particular order. The long axis was always with the alignment. The impact of truncation from later ploughing was considered but since ridge and furrow followed the same alignment as the pits at Site M and was absent from Site P, this did not adequately explain the variations. The size or shape may not have been as important in this instance as the alignment itself, although eroded surface plans are not necessarily indicative of the original plan shapes, which may have been more regular and consistent.

Each pit was fully excavated and bulk soil samples were obtained from six of the pits from Site M (Fig 2.18). The results of these samples were largely sterile, with only small assemblages of charcoal and snail shells recovered (Fryer 2016). Sparse mollusc remains were present in all the assemblages, which included shells of marsh/freshwater slum species, suggesting that the pits were left as open features, becoming periodically wet or seasonally water filled, before naturally silting. More prolific were the open country molluscs especially those of grassland habitats, indicating a pastoral landscape for livestock. Other species suggest the features eventually became overgrown and abandoned. A charred twig from pit M[102] underwent radiocarbon analysis and returned an early Bronze Age date, a result far earlier than expected perhaps indicative that the material was residual. There was unfortunately no other suitable material with which to make a comparison from Site M, and at Site P the extent of modern hedgerow disturbance was so great as to make the implementation of sampling unviable. No securely dated pottery or other domestic material was present at either site, which is in common with other excavated pit alignments and boundaries which are peripheral to settlement.

A linear field system was established probably from the later-middle Iron Age, extending south from Site G. The boundaries were aligned downslope towards the watercourse. Although the ditches of the system shared the same orientation as the pit alignment and cut its route, the likely chronological gap of several centuries suggests this was probably coincidental.

Both of the alignments divided land on the north side of the Ouzel Brook, and were roughly 2.5km apart. The pits were similar in appearance, with those at Site P displaying a more variable oval to sub-rectangular form with moderate erosion. The pits on Site M also had distinct pit groups of oval, sub-rectangular and circular pits, but were clearly overall larger and deeper than those from Site P.

At Site P the pits were very shallow features, only 0.06–0.28m deep, which had probably undergone considerable truncation, whereas the pits of Site M were up to 0.59m deep. Pits at Site M were longer and broader, with lengths of 1.20–2.55m and widths of 0.80–1.00m wide, in comparison to the pits of Site P that were 0.65–1.06m long and 0.40–0.70m wide. The spacing between the pits on both sites was roughly the same except where deliberate breaks had been implemented.

The fills of the pits varied in their composition, with the pits of Site P mostly containing dark silty clay, disturbed by widespread root activity. At Site M most had a homogeneous fill with some darkening to the surface, and most comprised mid–dark brown mottled silty clay. The initial deposits on both sites were probably the result of natural silting, and the darker soils towards the surface seem only to indicate incorporation of humus as they became overgrown and filled with vegetation.

Pit alignments are interpreted as landscape divisions or territorial boundaries and have been dated imprecisely all around the country from the late Bronze Age/ early Iron Age through to the middle and later Iron Age. What dating evidence there is suggests that construction and use of these monuments spanned some 400 years, 800–400BC, with some alignments later being replaced by continuous ditches, such as at Wollaston, Northamptonshire (Meadows 1995), St Ives, Cambridgeshire (Pollard 1996) and Ferrybridge, West Yorkshire (Roberts 2005). Very little material has been recovered from pit alignments to give reliable dates and they often hang on occasional pottery sherds or charred material that could easily be residual, or sometimes intrusive. Few have demonstrable stratigraphic relationships and when they do occur

they are seldom from comparable time periods. Examples from Bedfordshire, however, buck this trend and both Salford (Dawson 2005) and Biddenham Loop (Luke 2008) produced significant assemblages of finds. A pit alignment at Passenham Quarry, adjacent to the river Great Ouse near Calverton, Milton Keynes, has also produced a substantial assemblage of diagnostic early Iron Age pottery, characterised by dark grey burnished bowls, often carinated and sometimes decorated with incised zig-zag motifs, all coming from the secondary pit fills (Walker 2011), as noted in the pottery report. According to Dyer (1961) the substantial ditch and bank earthworks at Drays Ditches, Streatley, were preceded by a pit alignment; however, in Bedfordshire there are very few recently excavated examples to sit alongside those at Salford and Biddenham Loop. Others have been noted by aerial cropmarks or geophysical survey, but have yet to be confirmed by excavation, and they are an infrequent monument type for the county. A greater frequency occur northwards into Milton Keynes and Northamptonshire, where by 1999 there were 136 recorded examples (Kidd 1999, 5); a figure that has long since been exceeded. Other counties in the East Midlands also exhibit generally high numbers of pit alignments by comparison with those recorded in Bedfordshire (Willis 2006).

Why there should be such a dramatic change in the occurrence of pit alignments is almost as enigmatic as their purpose, a subject that deserves its own research programme. Pit alignments are considered to be boundaries, and in some cases they are related to significant territorial divisions (Dyer 1961). Northamptonshire might be considered border country between the Iron Age tribes; the Catuvellauni, Corieltauvi and Eceni, which might account for the need to mark out boundaries. Bedfordshire is, however, generally considered to be within the Catuvellauni heartland and so under this traditional view boundaries would occur less. However, with radiocarbon dates and pottery placing many pit alignments in a later Bronze Age/early Iron Age context how far the traditional middle to late Iron Age tribal regions are relevant is unclear.

At present it has been suggested alignments extend from pit clusters as markers in the landscape (Taylor 1996; Clay 2001). There is little to address the transformation of pit alignments into boundary ditches since in most instances the pits silted naturally and eventually were lost so that they had no effect in determining later landscape boundaries. Since few are known in their full extent it is also difficult to examine the portions of land that they divide. A correlation with topographical factors such as watercourses has been noted (Boutwood 1998), and those in Bedfordshire do extend perpendicular to watercourses, which if large enough are themselves significant boundaries. A pit alignment at Gayhurst Quarry, also adjacent to the river Great Ouse, near Newport Pagnell, Milton Keynes, showed a sequence of circular pits, replaced by rectangular pits and subsequently a continuous ditch along part of the original alignment (Chapman 2007). This alignment has also given a radiocarbon date from charcoal in the secondary fills of the rectangular pit phase spanning the early Iron Age, 800-410 cal BC (95% confidence, 2510+/-70BP, Wk-9171). Possible geological relationships are noted in Lincolnshire (Willis 2006), and in Northamptonshire. At Raunds a pit alignment was seen to follow a boundary between cornbrash and marl clay (McAree 2005), and at Harlestone Quarry they may have lain between the sand and ironstone to the north, and the clay and mudstone to the south (Chapman *et al.* 2017). This might represent a division between easily worked arable land and heavier or waterlogged soils more suitable for pasture or rough grazing (Jackson 2010). Possible relationships have been noted where alignments may link other monumental landmarks together or delineate boundaries that lay between them (Taylor 1997). Little has been done to address variations in character or to test the potential for a lost parallel linear earthwork created by mounding the soils dug from the pits, as surmised at Biddenham Loop (Luke 2008). In Northamptonshire it is generally accepted there has been no evidence for embanked material and the striking uniformity of pits has been proposed as the possible foundation for 'dead hedge' boundaries, which create a structural wall across the pits using A-frame timbers perhaps supplemented with other materials (Jackson 2010). Obviously where no uniformity or substance exists to the pits, such an explanation is not feasible. Perhaps most striking of all, there are so many recorded pit alignments to the north of Bedfordshire and across the East Midlands that it would seem impossible for them all be mark significant territorial boundaries. The few that have been identified within Bedfordshire itself therefore also represent significant cultural symbols that differ from those further north.

It is likely that the archaeological remains represent a series of different monument types that, until a proper typology is constructed, fall into a catch-all category. Pit alignments may have localised similarities, and certainly those in Northamptonshire are often very regular and consistent in shape or size, both along their course, and when compared with others in that county (Jackson 2010). They may serve as a range of differing early boundary types, perhaps representing a hierarchy from minor subdivisions of grazing land, with some perhaps more important boundaries between communities and the most important defining larger territories, as in the traditional view. Such a possibility may account for the differences and variations in size and extent, particularly when this cannot be attributed to truncation by later ploughing.

The pit alignments observed in Bedfordshire did not seem to fall within a standard type. Pits forming the alignments in Sites M and P were relatively small and shallow, but with great diversity in form, whilst at Biddenham Loop pits were regular and quite substantial. The northern alignment extended 900m between the river banks, closing off a meander in the river (Luke and Edmondson 2008, 121–127). Almost a third of the route was investigated and 80 pits were exposed by detailed open area excavation. A shorter southern alignment, identified by geophysical survey, was at least 40m long and aligned with other linear anomalies. Pits that were excavated were much larger than those at Sites M or P, often consistently sub-square or sub-rectangular; they were between 1.35–1.85m long by 0.90–1.55m wide and 0.85–1.05m deep. Occasional 'marker' pits were observed that were more V-shaped in profile but most were steep sided with fairly flat bases. Pits were spaced at similar intervals to Sites M and P, 1.5–2.0m apart. The incidences of finds were low in basal contexts. Like the pits at Site M, the snail species were those that preferred open country and short grassland, although later fills contained those with a preference for leaf litter. In most cases the pits accumulated fills from weathering and in-wash at their base, with later fills incorporating greater quantities of natural detritus over time and acquiring a greater quantity of finds. Pottery (62 vessels, 139 sherds) spanned the late Bronze age/early Iron Age to the early-middle Iron Age. Animal bone (492 fragments) and 89 worked flints and a small quantity of fired clay represented a surprisingly large assemblage of finds compared to many examples in the East Midlands. Several unusual deposits were noted where pits had been used to bury partial animal skeletons close to 'marker' pits.

At Salford the pit alignment was also perpendicular to a stream, although this was over 1km away (Dawson 2005, 19–23). The portion of the alignment investigated was 86m long comprising 86 pits and these exhibited great variation in their shapes with both elongated sub-rounded or sub-rectangular pits, oval and circular pits, and even pits that appeared to have been recut. Sizes varied greatly, with pits being between 0.45–2.70m long by 0.35–1.65m wide and although some examples were up to 0.50m deep, many were less than 0.30m deep. The spacing of pits was remarkably inconsistent, sometimes bunched together or widely spread. The alignment was also accompanied by a parallel ditch broken into four short segments, 0.60–1.40m wide and up to 0.40m deep. The two boundaries were sufficiently far apart that a bank could have been raised between them, but no evidence of such a feature was noted. Truncation on this site appeared to account for many of the shallowest features. Pit sides were generally steep but the overall profiles were inconsistent with both flat bottomed and rounded bases but none that could be termed V-shaped. This less orderly and less regular pattern is consistent with the pit alignments at Sites M and P. The fills of the Salford pits were also fairly consistent, mainly dark yellow brown clay stained with charcoal that suggested weathered natural mixed with organic detritus over time. The incidence of finds was, however, fairly high and this is probably because of its proximity to settlement. Pottery (147 vessels, 219 sherds) consisted mainly of early Iron Age sherds, and amongst the other finds was a later Bronze Age spearhead. There were no examples of whole vessels and no unusual deposits such as the animal skeletons at Biddenham Loop.

In comparison with pit alignments further north, those from Bedfordshire have usually been found close to settlement, but they appear inconsistent in form. The pits at Harlestone Quarry, Northamptonshire, represent an alignment that is typical of those found in the East Midlands (Chapman *et al.* 2015). The pit alignment was examined over a 199m extent and was almost parallel to the stream, roughly 0.5km to the north. The pits were mostly sub-square and tended to be consistent in size, although not in orientation. In all the previous examples pits were aligned with the row but at Harlestone Quarry they were occasionally skewed creating a slightly wavering course. Pits were 0.76–1.93m long by 0.69–1.77m wide and up to 0.66m deep, with a squared flat base, and at least half of all pits lay within a 0.20m tolerance. The spacing of the pits was wider at 3.0–3.5m apart but generally consistent. The typical pit profile had a flat base, with a sharp angle onto four steeply-inclined sides. The process of weathering and silting was similar to previous examples, although without significant artefact deposition; probably because contemporary settlement was further away. Ash wood charcoal provided a later Bronze Age radiocarbon date of 1060–920 cal BC (95% confidence, 2840±30BP, Beta-419139).

Based upon this brief overview, the pit alignments at Sites M and P are amongst the smallest in the area in terms of size and depth. Their inconsistency in form is paralleled at Salford (Dawson 2005), and they are quite unlike larger examples in the East Midlands and at Biddenham Loop (Luke 2008). If there is indeed a hierarchy of boundary types, these would probably lie at the lower end of boundary significance.

Review of project objectives

Relatively few Bronze Age settlements have been identified and investigated within the Bedfordshire region, so the data collected and recorded is in itself a valuable contribution to this dearth of sites. Identifying isolated Bronze Age features and separating their artefactual and environmental evidence from later activity has demonstrated that the Ouzel Brook valley contained within it a dispersed scatter of activity both upon the valley sides and upon the terrace above

the flood plain. This is a common difficulty with archaeological sites in the county, and many Bronze Age features, particularly isolated pits, probably go unnoticed for the lack of datable evidence. In these isolated cases such activity was confined to probable wells, and from one of these came an assemblage of plant macrofossils that will be of value in comparison with other sites in the region. The assemblage is a mix of barley and wheat, mainly spelt, and there is an interesting array of crop contaminants dominated by small legumes and including stinking mayweed, an herbaceous plant that prefers to grow on the clay uplands.

Evidence for Bronze Age crops is rare locally because the deposits are often dried out, or have been subject to fluctuations in moisture content such that anaerobic or semi-anaerobic burial environments do not survive. However, the identification of isolated wells in close proximity to a surviving watercourse increases the chance of good preservation and in such cases there is a greater chance of finding good data sets for the future. Such features would probably benefit research by being targeted for sampling and scientific work.

The unenclosed structures, rows of postholes and pits found at Site H present an example of possible settlement activity. Such sites are also fairly rare, and in this case there was a higher than usual recovery rate for middle–late Bronze Age pottery, which has contributed to the development of the ceramic typology by providing associated radiocarbon dates for diagnostic sherds. The occurrence of four-post and six-post structures linked together by rows of postholes has parallels within the county, and perhaps indicates the use of fences instead of ditches to demarcate small areas of land. Few field systems with ditch boundaries of Bronze Age date are known in Bedfordshire, although one rectilinear field system was recorded at Cambridge Road, Bedford (Chapman and Chapman 2017). The absence of domestic waste to corroborate settlement is common and is likely to be a by-product of preservation as surface deposits and small sub-surface features do not survive well archaeologically unless they are part of a buried land surface.

The Bronze Age is also difficult to identify due to a general absence of datable finds, so concentrations of pottery are worth examining, particularly in relation to large pits containing burnt material. Pottery distribution studies at Broom Quarry helped establish a circular post-built roundhouse as a late Bronze Age domestic structure (Cooper and Edmonds 2007). Large pits that contained burning are not well reported. There are no known examples of clamp kilns; although they must have existed to make the pottery, and large pits with burned materials are therefore a high priority for investigation, regardless whether they are thought to be associated with domestic or craft based activities. At Site H there was no vitrified or wasted pottery to support an argument for clamp kilns on the site and this possibility was dismissed. Plant macrofossil assemblages were unproductive, again probably owing to the dry burial environment. However, the close association of two larger pits with two smaller pits packed with burnt stone was a curious group of features worthy of note as they might suggest cooking activities. The occurrence of burnt stone is sometimes overlooked on archaeological sites. In itself burnt stone provides little artefactual value, but like the pottery, interesting observations might be made in terms of quantity and distribution where settlement activity may be suspected, without retrieval being a necessary component of recording.

Chapter 3

IRON AGE FARMING BESIDE THE OUZEL BROOK

Significant evidence of Iron Age occupation was recovered from Sites D, G and M, commencing from *c.*600BC onwards until *c.*AD0. The Iron Age occupation at Sites D, G and M was analysed as a single entity since the excavation areas were adjacent and represent a single settlement with related field systems (Fig 3.1). Initial activity took the form of concentrated pit clusters from the early Iron Age onwards. The appearance of domestic settlement was an early Iron Age development comprising dispersed unenclosed roundhouses and scattered pits or small enclosures. The intensity of occupation increased into the earlier-middle Iron Age, which brought some nucleation of activity, enclosing areas of domestic occupation by the later-middle Iron Age. Settlement of the flood plain probably does not directly relate to occupation at the top of the valley (Site K) at this time.

A very small part of an earlier-middle to late Iron Age settlement was examined at Site K. The investigations exposed isolated satellite features and parts of ditches extending from an enclosure that was itself beyond the scheme boundary.

At Site G, settlement remained active over the *c.*300 years through the middle Iron Age. The intensity of activity was, however, waning before the 1st century BC and the site was eventually abandoned. Overall the settlement slightly expanded in size, marked by significant episodes of internal changes to features and their layout, but without significant settlement migration. There were areas of dense intercutting features within the main settlement enclosures and isolated scattered features dispersed around the settlement area within neighbouring field systems (Fig 3.2).

Fig 3.1 Location of Iron Age sites

Fig 3.2 Iron Age settlement, Site G, looking east

In addition, an undated isolated roundhouse was found during the targeted watching brief at Thorn Farm overbridge, 200m to the north-east of the nearest settlement boundary ditch at Site G. The roundhouse gully contained no artefacts and there were no other datable prehistoric or Roman features in the vicinity to determine which period in the Iron Age it belonged to.

Iron Age settlement evidence at Sites D, G and M

Summary

The settlement lay upon a low natural flat plateau of the valley flood plain at *c.*100–102m aOD with a very gradually drop by 5m over *c.*470m towards the Ouzel Brook. The Ouzel Brook flows parallel to the main settlement area in Site G, aligned from north-east to south-west. Sites D and M were slightly closer to the stream and on a reduced elevation. The valley sides rise fairly gently to the north and north-west of the main settlement to a height of *c.*135m aOD. The geology is grey-white chalky clay with little variation.

The detailed excavation of Sites D, G and M, and the surrounding targeted and general watching brief works, spread across five stripped areas of varying sizes totalling 9.82ha (Fig 3.3). The principal settlement occupied just under half of this with part of the remainder recorded by a geophysical survey outside of the scheme boundary (Simmonds and Fisher 2008, figs 3-4). Enclosures, pit areas and probable roundhouses were identified, which compare well with work undertaken for the adjacent Houghton Regis North Development (GPC 2014, figs 10-13). The geophysical survey maps the extent of the Iron Age settlement within the road scheme, of which *c.*80% was excavated (Figs 3.4-3.5).

Settlement at Site G formed a broadly continuous sequence of activity from the early to late Iron Age (Table 3.1). Initial activity in the early Iron Age was characterised by tightly clustered groups of intercutting pits dispersed widely across the extent of the investigation area, perhaps representing temporary or intermittent activity. Subsequent developments were more permanent and comprised the gradual aggregation of roundhouses, enclosures and pits over the middle to late Iron Age, and 1st century BC. Although the layout of the settlement altered, there was little migration of the overall layout, and the site was essentially reorganised internally and extended in area only very slightly over a period of about four centuries. There was no shift from unenclosed to enclosed settlement and no substantial extension of enclosures over time, as the total area of initial settlement remained more or less constant, only becoming more intensely occupied and redefined.

Field systems attached to the settlement were examined at Sites D and M, between the main focus of occupation at Site G and the Ouzel Brook. In most instances these more peripheral boundary features produced few artefacts or ecofacts, even when within 100m of the settlement core.

Early Iron Age features at Site D

Occupation at Site D began possibly as early as *c.*600BC with pit clusters and isolated pits, a single possible ditch and sparse evidence for postholes (Fig 3.6). The features between Sites D and G were similar and in such close proximity that they could easily have been parts of a single extended settlement, but they could also have been small separate interventions in the same area.

Table 3.1: Chronology of settlement, Sites D, G and M

Phase	Period	Date range
1	early Iron Age	*c.*600–400BC
2	early-middle Iron Age	*c.*400–250BC
3	later-middle Iron Age	*c.*250–100BC
4	late Iron Age, 1st century BC	*c.*100BC–AD0

Fig 3.3 Extent of Iron Age settlement, Sites D, G and M

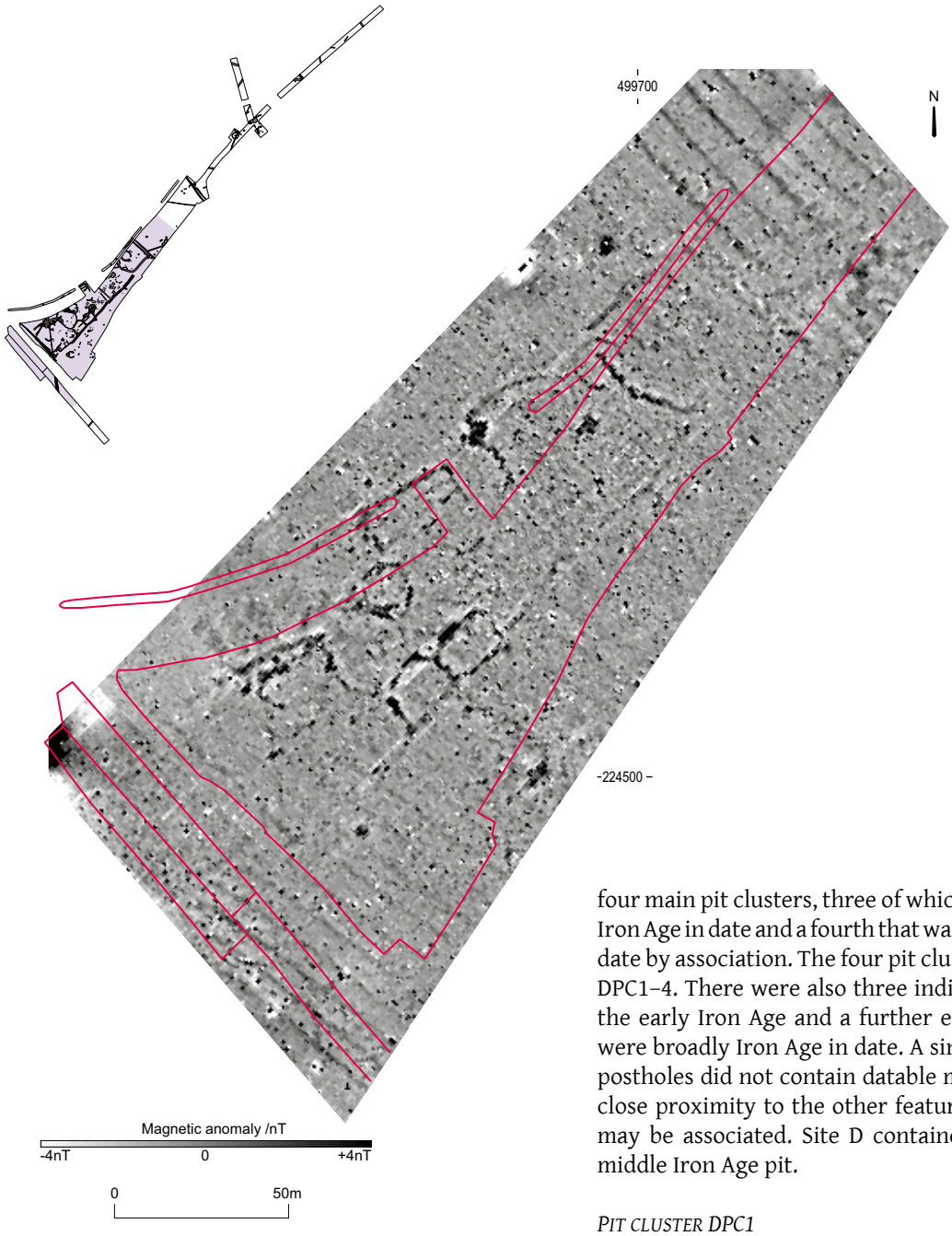


Fig 3.4 Geophysical survey results by magnetometer, Site G

Further pit clusters were indicated by the geophysical survey results to lie in the area between Sites D and G. Significant quantities of pottery and animal bone were recovered from some of the features on these sites. Pottery and the radiocarbon dates remain broadly early Iron Age. In addition disarticulated human remains were found in four contexts, but no other artefact or ecofact types were found, except a single scrap of indeterminate copper alloy.

The features found at Site D generally had a dispersed pattern, although there was a slight concentration of pits within the north-western side (Fig 3.7). There were four main pit clusters, three of which were clearly early Iron Age in date and a fourth that was probably of similar date by association. The four pit clusters are designated DPC1–4. There were also three individual pits dated to the early Iron Age and a further eight other pits that were broadly Iron Age in date. A single ditch and three postholes did not contain datable material but were in close proximity to the other features, suggesting they may be associated. Site D contained a single definite middle Iron Age pit.

Pit cluster DPC1

This was the largest of the groups located towards the south edge of the site (Fig 3.8). The cluster consisted of two groups of intercutting pits, lying approximately north and south to one another. About 40% of DPC1 was sampled with 17 pits examined in the excavation out of *c.*30 pits within the group. The northern group covered an area *c.*11m by 6.5m in plan, with <20% of the total area excavated. The southern group were *c.*7.5m by 7m in plan with just under half of this examined. Excavation of these features produced 73 sherds (355g) of pottery and nine animal bone fragments from these features.

Three pits, D[1053], D[1056] and D[1060], were excavated within the northern cluster. They were

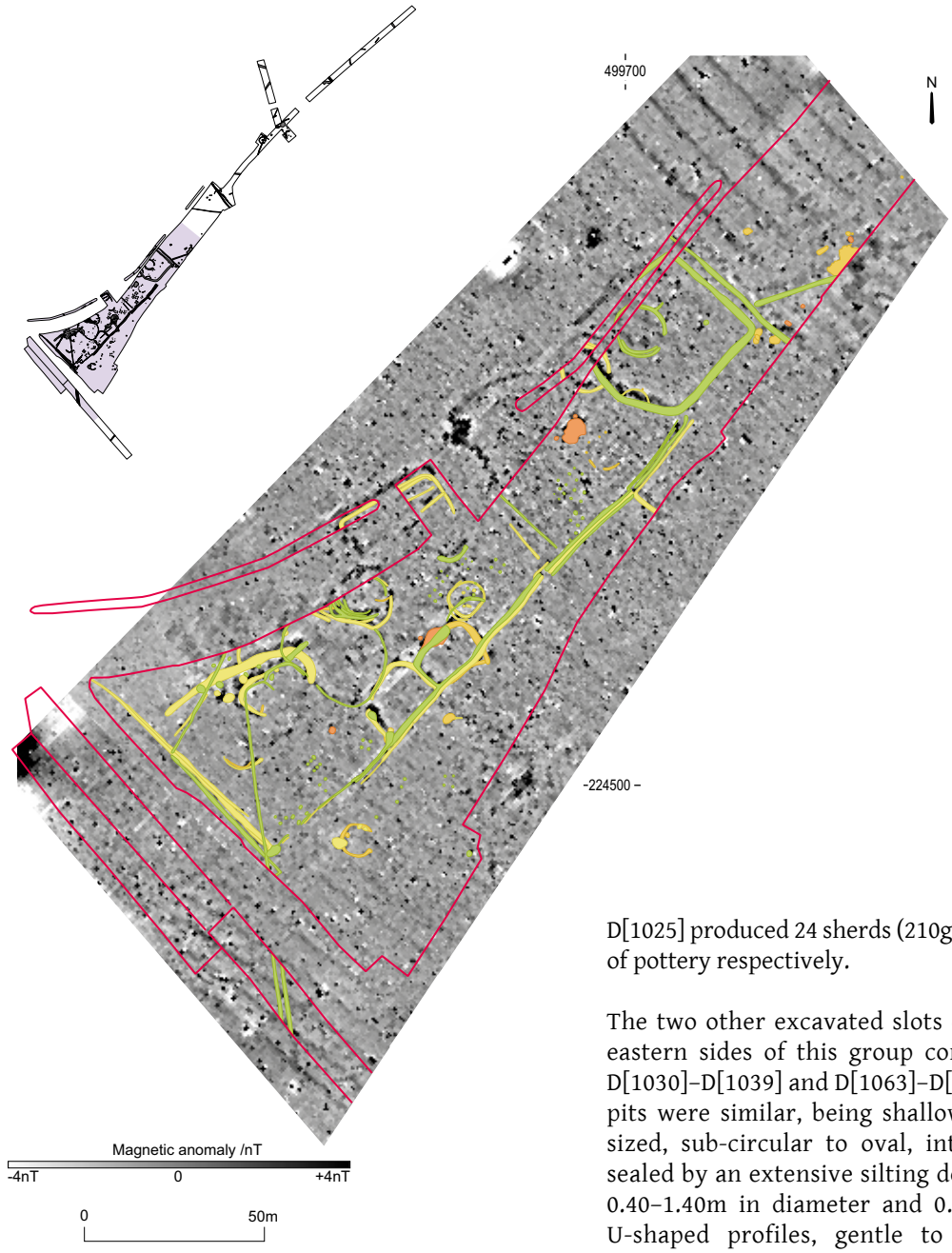


Fig 3.5 Geophysical survey compared against excavated features, Site G

between *c.*1.5m and at least 2.5m in diameter, and up to 0.60m deep with sides sloping between 35° and 70° (Fig 3.8). The pits were backfilled with up to three deposits, the earliest pit was seemingly backfilled quickly from the south as evidenced by tip lines. One pit contained no pottery, whilst the other two collectively contained 12 small pottery sherds (42g).

The southern cluster of pits was examined in three separate slots. Three intercutting pits D[1019], D[1021] and D[1025] were 1.0–1.2m in diameter and 0.22–0.61m deep, their sides from moderate to near vertical (Fig 3.8). Pit D[1019] was undated, whilst pits D[1021] and D[1025] produced 24 sherds (210g) and five sherds (19g) of pottery respectively.

The two other excavated slots on the southern and eastern sides of this group comprised eleven pits: D[1030]–D[1039] and D[1063]–D[1072] (Fig 3.8). These pits were similar, being shallow, small to medium-sized, sub-circular to oval, intercut, and were all sealed by an extensive silting deposit. The pits were 0.40–1.40m in diameter and 0.14–0.38m deep with U-shaped profiles, gentle to moderate (30°–45°) sloping sides and mainly rounded or occasionally flat bases. The larger and slightly deeper pits were generally in the middle of the group, whilst the smaller shallower pits were at the periphery. Most of the pits contained a homogeneous fill with only two pits containing more distinct differentiation. The fills comprised dark or light grey-brown silty clay which seems to have been manually backfilled to ground level. Fill D[1065] had six sherds of pottery. The fill eventually settled to form a gentle rounded hollow, which filled naturally with silting deposits. These layers were between 0.19–0.30m thick and were variations of dark grey-brown silty clay, which contained 32 sherds (88g) of pottery, nine fragments of animal bone and some fired clay. One cattle metacarpal had a circular perforation through the proximal end, indicative of craftwork.

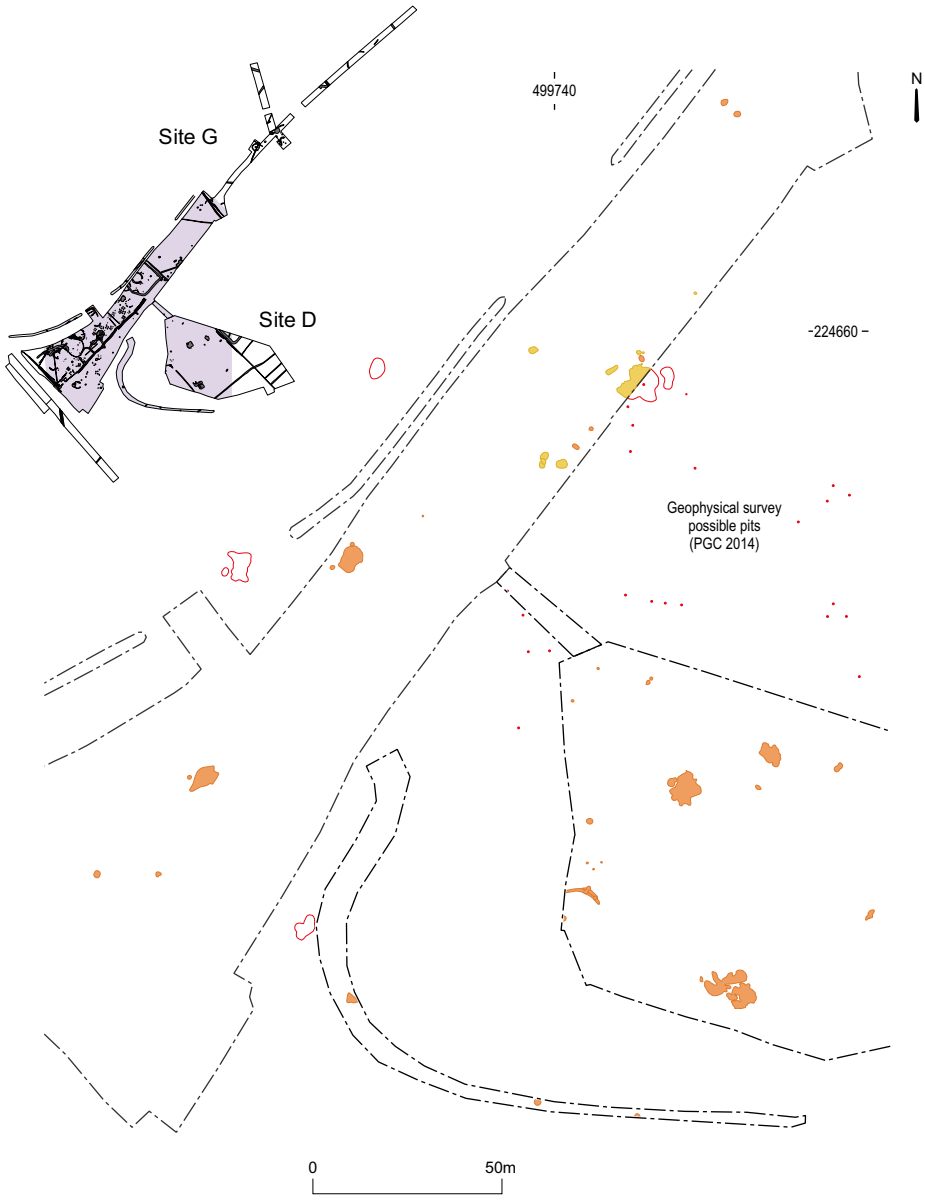


Fig 3.6 Distribution of Late Bronze Age/early Iron Age and earlier-middle Iron Age features, Sites D and G

PIT CLUSTER DPC2 AND PIT D[1195]

At least nine pits lay within an area of 8.3m by 7.2m, with about a third investigated (Fig 3.9). A separate pair of intercutting pits lay adjacent to the west side of the group, one of which was sampled. Artefacts recovered from the pit cluster included 363 pottery sherds (5,076g) with the vast majority derived from pits D[1212] and D[1249], and from layer D[1231]. Other finds included eight fired clay/daub fragments, three fragments of humerus from a neonate and an adult frontal skull fragment, a worked animal bone forming a small pointed blade, and 56 unburnt and 35 calcined animal bone fragments.

At least two large pits, D[1233] and D[1254], were excavated in the western excavation slot. The earlier of the two pits, D[1233], was at least 2.5m in diameter and 1.0m deep, with a U-shaped profile with near vertical sloping sides and a flat base. Pit D[1254] was at least 1.5m in diameter and 0.50m deep with moderately steep (45–60°) sloping sides and rounded base (Fig 3.9). Collectively they produced 25 sherds (280g) of pottery, which included sherds with distinctive fingertip decoration, and seven animal bone fragments. Silting deposits 0.08–0.45m thick overlay the pit cluster, comprising dark grey to black clay silt with moderate sub-rounded pebbles (<40mm), occasional chalk fragments and charcoal flecks. The deposit contained a considerable assemblage of pottery (85 sherds, 1,710g), a disarticulated human humerus (see Chapter 6), and 33 unburnt and 15 calcined animal bone fragments. An environmental sample from these deposits produced a large quantity of charcoal as well as some barley and wheat grains, including spelt. Two radiocarbon dates were obtained. An animal tooth was dated 750–685/665–640/590–405 cal BC (95% confidence, 2430±30BP, Beta–456911). Buckthorn charcoal produced the date 755–680/670–610/595–405 cal BC (95% confidence, 2440±30BP, Beta–458331). For both radiocarbon dates the range 590/595–405 cal BC has the highest confidence (Table 3.16).

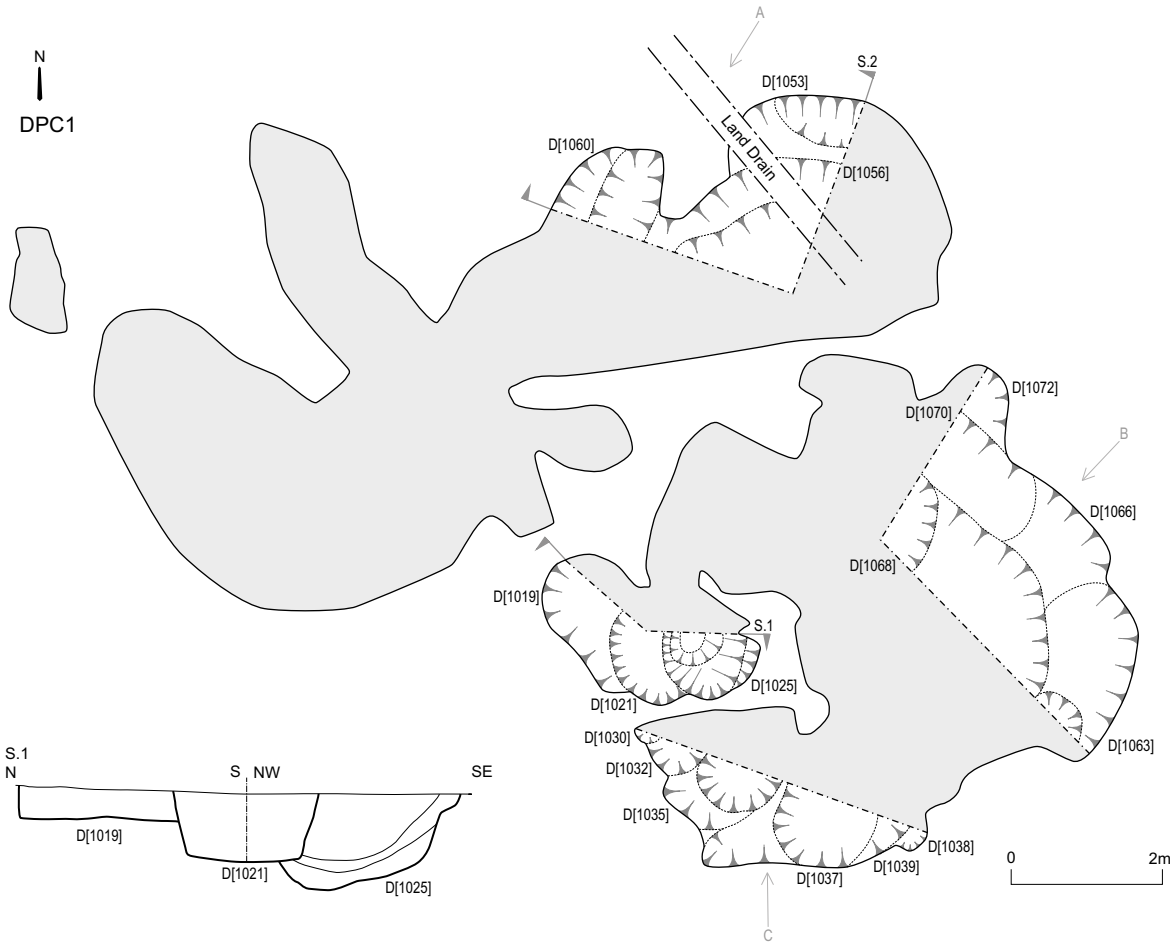
The eastern excavated slot revealed seven intercutting pits. The seven pits varied greatly in size, 0.70–2.95m wide, but all were relatively shallow to moderately deep, 0.24–0.48m with sloping sides between 30°–60° and mostly rounded bases.

Most of the pits had primary deposits, comprising sterile redeposited natural silting <0.10m thick, whilst the remainder of the fills were dark soils containing

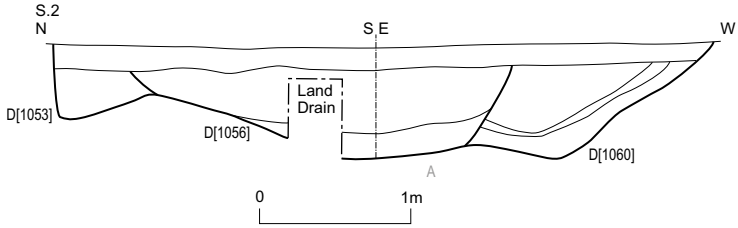
Fig 3.7 Late Bronze Age/early Iron Age features, Site D

occupation debris. An exception was pit D[1224], where the basal fill contained 12 pottery sherds (65g) and a large quantity of charcoal. A radiocarbon date from the charcoal indicated that the assemblage dated to the end of the early Iron Age (Beta–446414; Table 3.16).

The upper fills were largely dumped deposits of dark grey silty clay. The quantity of artefacts varied; there was no pottery in pits D[1216], D[1221] or D[1252]. Pit D[1218] contained four late Iron Age pottery sherds (68g) in its upper fill alongside sheep skull fragments from a single animal. The upper deposit of pit D[1224] produced 15 late Iron Age pottery sherds (210g) and in pit D[1249] a significant assemblage of 50 similarly dated pottery sherds (730g), included plain coarse body sherds from jars, with five small sherds displaying double incised line decoration and triangular motifs. Animal bone and a residual late Neolithic/early Bronze Age flint blade were also retrieved. The upper fill of pit D[1212] was the most notable and comprised dark grey to black sandy silty clay <0.42m deep that contained 111 late Iron Age pottery sherds (1,370g), some with fingertip and fine combed decoration, others that had remnants of double incised zig-zag adornment and some with deeply-incised V-shaped embellishments, filled with sparse incised points. One thin-walled vessel had a base with a shallow footring in contrast to the common flat base of most vessels. Human bone comprised three fragments of humerus, probably from a single neonate, and animal bone fragments; 13 unburnt and 19 calcined. Seven fragments of daub and fired clay were also recovered. Radiocarbon analysis of an animal long bone recovered from the fill produced a date 750–685/665–640/590–405 cal BC (95% confidence, 2430±30BP, Beta–456910). A few cereal grains were also recovered from pit D[1224].




A




B


C

Fig 3.8 Pit cluster DPC1, Site D

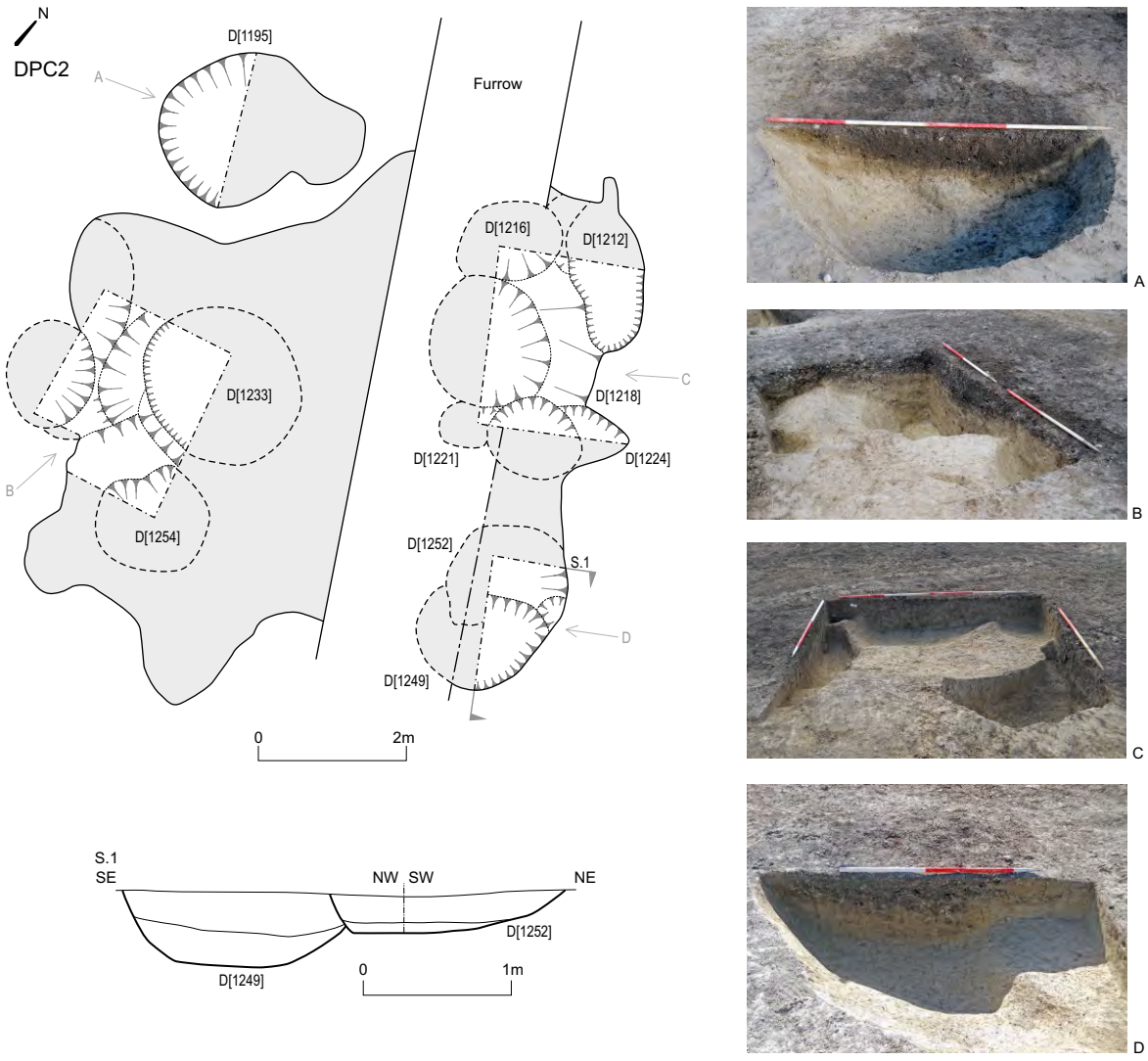


Fig 3.9 Pit cluster DPC2, Site D

Layer D[1213] may be the fill of a medieval furrow that disturbed the pit cluster, but it contained 55 sherds (630g) of late Iron Age pottery including a single neck fragment decorated with a double zig-zag. A piece of the front part of a small pointed blade, cut from the mid shaft of an animal foot bone, probably a sheep, was found amongst other animal bone and some fired clay. There was also a small fragment from a crucible (10g) used in lost wax copper-alloy casting.

Pit D[1195] lay to the west side of the main cluster, 2.95m by 2.20m in plan and 0.48m deep with 45° sloping sides, breaking onto a broad flat base. Redeposited natural at the base produced a single pottery sherd and some animal bone, whilst the upper fill contained 58 pottery sherds (785g) and 14 animal bone fragments.

PIT CLUSTER DPC3

This cluster was 6.5m by 4.7m in plan (Fig 3.10). Two excavation slots sampled about one quarter of the area and uncovered 10 pits. A significant quantity of artefacts from the pit cluster including 300 late Iron Age pottery sherds (*c.*4,300g), daub (50g), 28 animal bone fragments and some calcined bone fragments.

Four pits were recorded in the south-western corner of the cluster. These varied in diameter from *c.*1.00–2.38m and were 0.43–0.65m deep. The sides varied greatly, sloping from 30° to 80° from the horizontal and the bases were largely flat. Two pits, D[1128] and D[1131], were undated. One pit, D[1134], produced 17 pottery sherds (160g) from its upper fill. Pit D[1125] contained five tip lines from the south-east. The lower fills comprised redeposited natural. The darker upper fills covered most of the pit and contained pottery, animal bone and charcoal debris, all elements of domestic waste. The lower tip lines contained 19 pottery sherds (280g), one animal bone and one daub fragment as well as a residual Neolithic flint scraper. The upper fill produced a notable pottery assemblage of 82 sherds (1,260g) and included a thick-walled shouldered jar/bowl, with deeply-incised

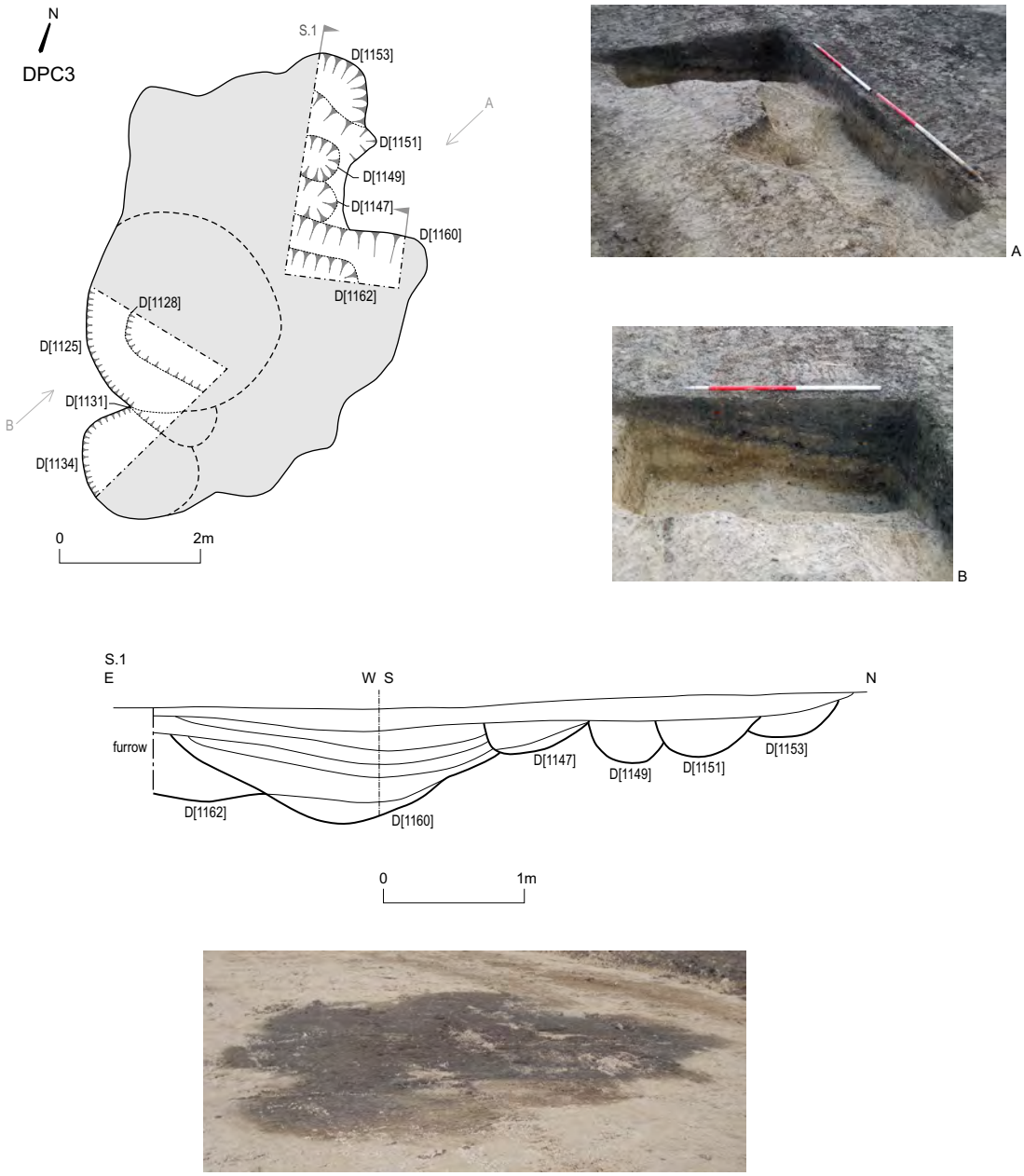


Fig 3.10 Pit cluster DPC3, Site D

V-shaped impressions; a small thin-walled jar with an elongated neck and deep linear incisions; a decorated shoulder piece with closely-spaced and deeply-incised oval fingertip and fingernail impressions; another jar with a highly burnished external surface; and a small thin-walled rounded bowl with a smoothed surface. Nine animal bone fragments were also found.

There were at least six pits in the north-eastern slot. Four pits were 0.30–0.70m wide by 0.04–0.30m deep. The two largest pits were in the southern part of the intervention with undated pit, D[1162], at least 0.8m wide by 0.40m deep, whilst the datable pit, D[1160], was 2.30m wide by 0.80m deep. The four smallest pits had U-shaped profiles and rounded bases. Their fills were sterile light to mid grey-brown chalky or silty clay and only two pits contained artefacts; a single pottery sherd (19g) from pit D[1153] and a fragment of animal bone from D[1151]. In contrast pit D[1160] was infilled with alternating bands of deposits. The lower fills were sterile of finds, and these were overlain by thin layers of dark charcoal/ash stained fill, 0.10–0.12m thick. Collectively these layers produced 124 pottery sherds (1,470g) including a shouldered jar with fingertip impressions and a body sherd with an incised chevron. There were also eight unburnt and some calcined animal bone fragments. The upper deposit produced a few charred cereal grains and a sufficient quantity of charcoal was available for radiocarbon analysis, but the results suggest that the material was contaminated

by middle Iron Age activity producing a date of 345–320/205–85/75–55 cal BC (95% confidence, 2130±30BP, Beta–446413).

Overlaying and sealing most of the northern half of the pit cluster was a layer, 0.10–0.20m thick, that contained 57 sherds (1,120g) of late Iron Age pottery and eight animal bone fragments, including a fragment from a deer antler tine.

PIT CLUSTER DPC4

This was a smaller group than the other three pit groups, comprising three intercutting pits (Fig 3.11). The pits were 1.50–2.00m wide by 0.27–0.50m deep with varied 30–60° sloping sides and slightly uneven rounded bases. One pit, D[1244], contained finds and is dated by four late Iron Age pottery sherds (11g) and a single burnt animal bone fragment. Layer D[1242] overlaid the fills of the pits, there was a single sherd of pottery (26g) and a fragment of burnt animal bone. There were no charred seeds and only a small quantity of charcoal from soil samples.

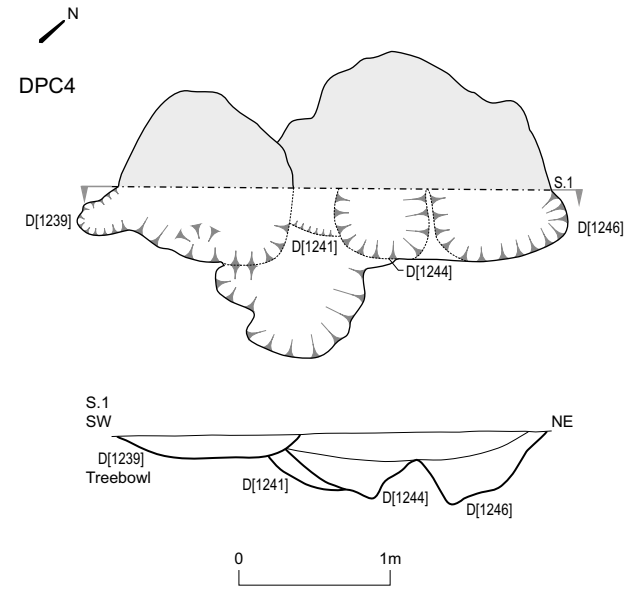


Fig 3.11 Pit cluster DPC4, Site D

CURVILINEAR DITCH, DED1

A curving ditch that was recut lay at the western edge of the excavation (Fig 3.7), and may have been part of a ring ditch from a possible roundhouse or, more likely, a small agricultural enclosure. The ditch was cut by three early Iron Age pits; D[1082], D[1094] and D[1098]. The ditch which had a south-eastern terminal was over a 10m long, between 0.40–0.50m wide and 0.20m deep. Two small sherds (14g) of pottery were recovered from the fill. The ditch was partly recut by a shorter ditch, 5m long, 0.66m wide by 0.50m deep.

INDIVIDUAL PITS AND POSTHOLES AT SITE D

Eleven pits and three undated postholes were probably early Iron Age in date. They were located in the north-western side of Site D outside the main area of pit concentrations.

PITS AND POSTHOLES NEAR CURVILINEAR DITCH, DED1

In close proximity to curvilinear ditch DED1 there were four pits within an area *c.*15m by 10m (Fig 3.7). Three of these pits cut the recut ditch. All four pits were 0.80–1.00m wide by 0.50–0.82m deep with very steep to near vertical sides, rounded at the base.

Pit D[1077] contained four fills with a moderate quantity of artefacts that included 42 pottery sherds (380g) of mostly plain body sherds with a single piece, probably from a rounded shoulder, which had a pair of fingertip impressions. There was a single animal bone. The other three pits had fewer fills, which produced 30 late Iron Age pottery sherds (315g). Two of the pits contained domestic waste. Pit D[1094] contained 20 unburnt and some calcined animal bone and, while there were no charred cereals, bulk soil samples produced egg shell. The deposit from pit D[1098] comprised dark grey sandy ash with moderate chalk and charcoal flecks.

Three undated postholes lay to the north of these pits. All three postholes were sub-circular, 0.24–0.32m wide by 0.23–0.24m deep; with very steep near vertical U-shaped profiles (70–80°) and flat bases. They all had dark grey-brown silty clay fills.

PITS WITH NO PARTICULAR GROUPING

There were four pits within an area of *c.*20m by 10m at the northern extent of Site D; pits D[1136], D[1140], D[1165] and D[1168] (Fig 3.7). They were between 0.81–1.02m wide by 0.17–0.41m deep with steep (50–60°) sloping sides and flattish bases. All of the pits were infilled during more

than one event, with D[1140] containing as many as three deposits. The upper fill of D[1165] produced 29 pottery sherds (2058g) and a few animal bone fragments.

Three other pits were in no particular grouping (pits D[1090], D[1142] and D[1205]), but lay in proximity to clusters DPC2-3. These pits were between 0.83–1.30m wide by 0.18–0.55m deep. Two of the pits produced small quantities of pottery, totalling 12 sherds.

PIT CLUSTER GPC1

A long curving topsoil strip to the west of Site D, required for the installation of a drain, was recorded as part of Site G although as it was in close proximity to the Site D features it will be discussed here (Fig 3.7).

This drainage trench also produced a pit cluster comprising three intercutting pits. Two earlier pits were cut by pit G[1020] in an area that measured 3.4m by 2.5m (Fig 3.7; Table 3.18). The three pits were all close to 1.60m in diameter and were 0.40–0.58m deep. Like other pit clusters they were somewhat amorphous in plan, forming an irregular oval. The profiles were broad and U-shaped, with steep 60°–70° sloping sides and a slightly uneven base. The fills of the two earlier pits were devoid of finds; the later pit, G[1020], contained a complete horse skull and 16 late Iron Age pottery sherds (125g).

This area also produced a single undated isolated pit, G[1012].

EARLY IRON AGE PITS AT SITE G

At Site G one cluster of early Iron Age intercutting pits, GPC2, and ten isolated pits, lay within the main excavation area (Fig 3.12). These pits were in four groups at different locations, each nearly 100m apart. The spacing may suggest that the four pit areas were unrelated to each other. Most of the pits had a U-shaped profile with the main exception being GPC2. Pottery recovered from the pits is generally dated to this period, and is supported by radiocarbon dates obtained from material within some of the pits.

PIT CLUSTER GPC2

This pit cluster extended over a 7m by 5m area and comprised four intercutting pits (Fig 3.13; Table 3.18).

Pit G[1518] was early, cut by pit G[1516], whilst the other undated pit, G[1508] was later. The pits varied greatly in size. These smaller pits were 1.30–1.34m wide by 0.32–0.52m deep, with gentle to moderate sloping sides and rounded bases.

Pit G[1516] was extremely large at *c*.5.5m by 4.5m in plan and with a varied depth of 0.50–0.82m. The sides were inconsistently gentle, moderate and steeply sloped, and the base was uneven with distinct hollows. The lowest fills were largely natural silting without finds. Only the upper fills contained artefacts; fill G[1512] of this large pit G[1516] was <0.30m thick and comprised light brown clay with moderate stones, 50–100mm long. The fill contained 54 Early Iron Age pottery sherds (730g), a fragment of human skull (see Chapter 6) and 23 animal bone fragments. A radiocarbon date from an animal bone fragment produced the date 765–410 cal BC (95% confidence, 2460±30BP, Beta–456917, Table 3.16), although the main probability lay within the years 590–510BC. The upper fill of this pit was 0.20–0.40m thick and comprised dark grey to brown/black clay

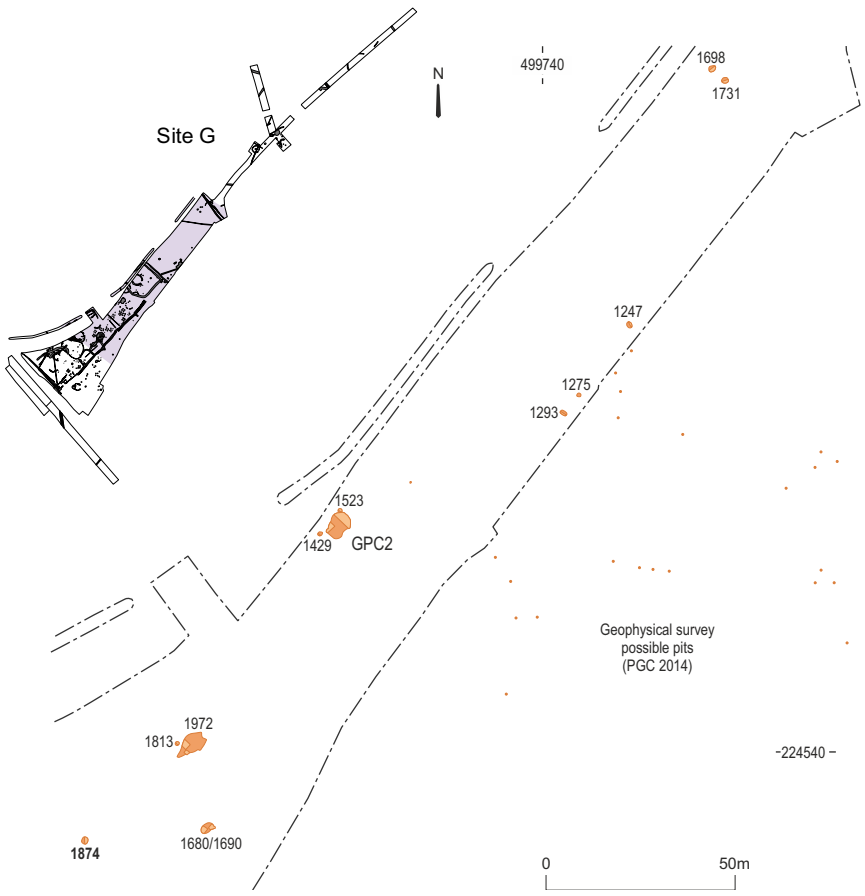


Fig 3.12 Late Bronze Age/early Iron Age features, Site G

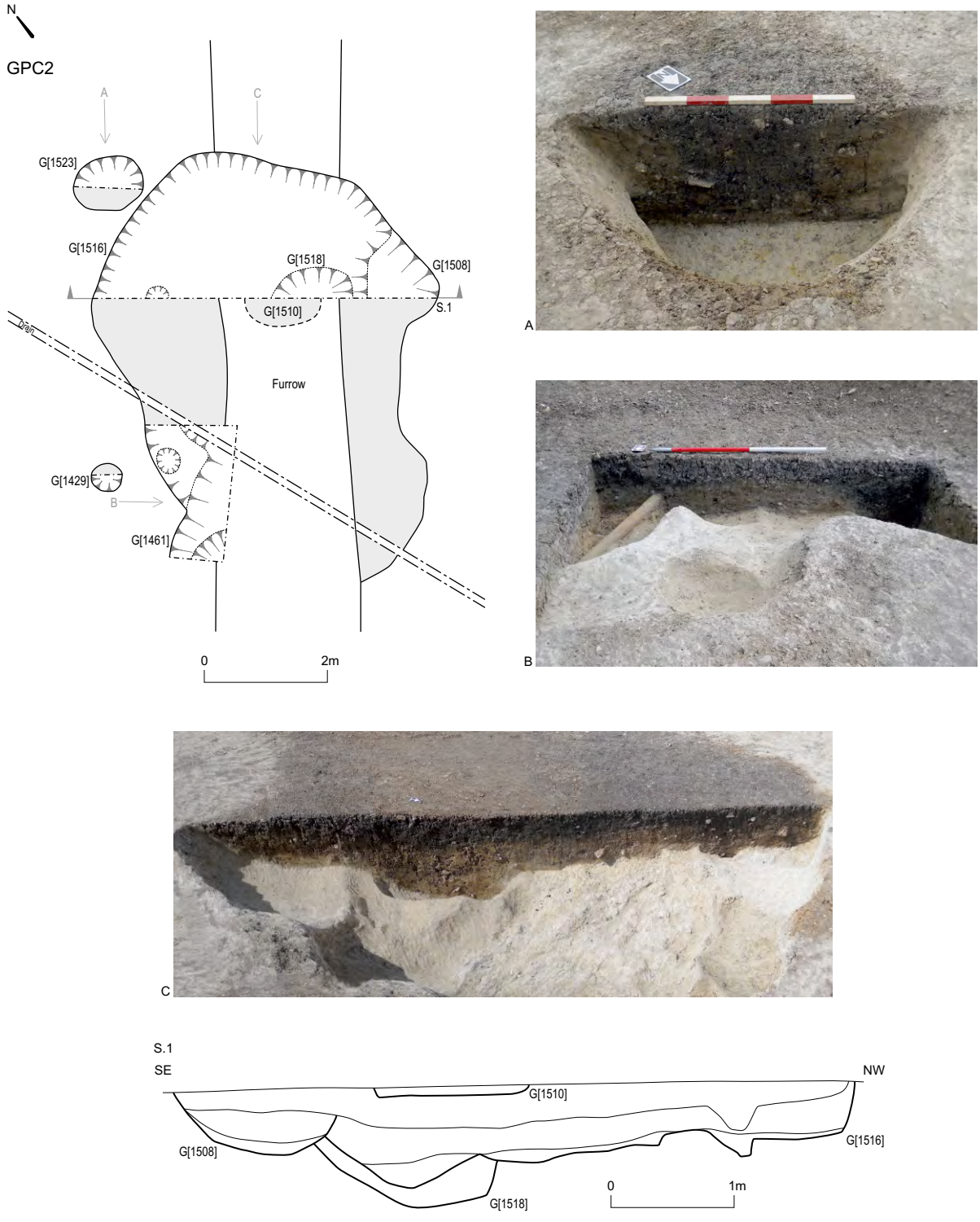


Fig 3.13 Pit cluster GPC2, Site G

with a moderate quantity of stone, 50-100mm long. There were 64 animal bone fragments and 216 sherds (4,350g) of early to early middle Iron Age pottery from this layer. The assemblage comprised a wide variety of forms and decorations, including incised zig-zagging, incised geometric designs, fine scoring, burnishing and fingertip impressions. The animal bone from this pit cluster is thought to be domestic refuse.

In contrast, pit G[1461], on the west side, was 2.25m wide by 0.73m deep with an irregular base that dropped steeply at the edge. The natural silting deposit contained no finds, but the upper fill was dark grey silt with 85 Iron Age pottery sherds (1,505g). An animal long bone was closely dated to 510–395 cal BC (95% confidence, 2370±30BP, Beta–456916, Table 3.16).

Two isolated pits, G[1429] and G[1523] lay less than 2m from the edge of the pit cluster. They were both small, 1.0m and 0.50m wide respectively, with shallow U-shaped profiles, 0.40m and 0.18m deep, with very steep to vertical sides and a flat base. Pit G[1429] had 16 pottery sherds (110g) and pit G[1523] had 12 sherds (260g), both assemblages dated broadly to the Iron Age.

Isolated pits at Site G

The north-eastern pits

Two pits, G[1698] and G[1731], lay *c*.5m apart at the edge of the excavation area, close to the targeted watching brief transect (Fig 3.12). Pit G[1698] was oval in plan, 2.55m by 1.39m, and 0.74m deep with very steep sides and an irregular base. Pit G[1731] was smaller, 1.50m wide by 0.36m deep, with very steep sides and a flat base. Pottery from the basal fills of both pits produced a moderate pottery assemblage; 45 sherds (810g) from pit G[1698] and 17 scrappy sherds (47g) from pit G[1731].

Nearly 70m to the south-west of these there were three smaller, widely-spaced isolated pits; G[1247], G[1275] and G[1293], all with U-shaped profiles. Pit G[1247] was 1.53m long by 1.07m wide, and 0.41m deep with near vertical sides and a flat base. The fill contained 25 pottery sherds (245g) and three animal bone fragments. Pit G[1275] was 0.54m wide by 0.10m deep with steep sides and a flattish base. The fill contained 15g of residual late Bronze Age flint tempered pottery. Pit G[1293] was 1.70m long by 1.0m wide, and 0.42m deep with steep sides and a flat base. The dark brown sandy clay fill contained 76 early Iron Age pottery sherds (630g), an undiagnostic copper-alloy fragment and 19 animal bone fragments. Sparse quantities of wheat and barley seed, including chaff and segetal/grassland seeds, were also recovered.

Radiocarbon dates from charcoal (elder) and an animal long bone from the same deposit in pit G[1293] produced corroborative dates 540–395 cal BC (95% confidence, 2390±30BP, Beta–458333) and 735–690/660–645/545–400 cal BC (95% confidence, 2410±30BP, Beta–456914).

The south-western pits

Three isolated pits, G[1813], G[1972] and G[1874] were over *c*.50m to the south-west of pit cluster GPC2. In addition, there were two intercutting pits, G[1680] and G[1690].

Pit G[1874], 1.62m wide by 0.64m deep, was furthest west. The pit had a slight bell-shaped profile with the upper edges undercut and an otherwise vertical side and a flat base (Fig 3.14). The basal fill was 0.25m thick and comprised mixed dark grey silty clay with redeposited natural white chalky clay. Within this deposit were

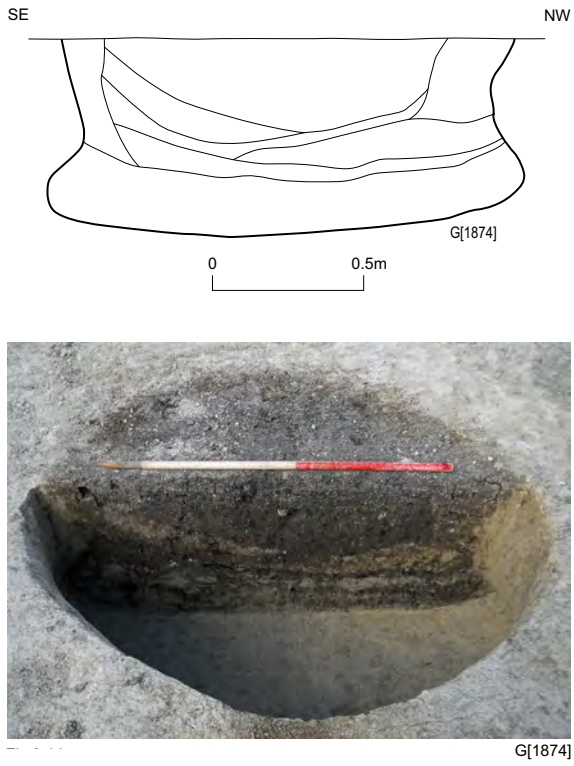


Fig 3.14 Early Iron Age pit G[1874], Site G

nine pottery sherds (75g) and one fired clay pellet. The composite nature of this fill suggested that multiple small deposits of waste were cast into the base of the pit when wet. Above this the fill sequence was of differing soils tipped in from both sides. A middle fill produced 23 pottery sherds (205g), a segment of the lower part of a roe deer antler that had been heavily modified and occasional animal bone fragments. The upper fill contained an assemblage of 84 early Iron Age pottery sherds (505g), fired clay and moderate animal bone. The environmental sample showed the fill contained sparse wheat and barley grains were accompanied by segetal/grassland seeds.

A large pit, G[1972], *c*.5m in diameter and 0.47m deep with near vertical sides and an irregular base, was truncated by a 1st-century BC enclosure ditch. The fills contained 199 Early Iron Age pottery sherds (2,085g) and 41 animal bone fragments. An animal bone was radiocarbon dated, but appears intrusive as it produced a middle Iron Age date 385–200 cal BC (95% confidence, 2230±30BP, Beta–456918).

Adjacent to the large pit was pit G[1813], 0.90m wide by 0.45m deep, with vertical sides and a slightly rounded base. The fill contained 21 pottery sherds (200g) and five animal bone fragments. Sparse quantities of wheat and barley were amongst the sieved samples.

Pits G[1680] and G[1690] were oval in plan, *c*.3.5m by 2.2m long and 0.5m deep. There are 26 pottery sherds

(375g) from these pits, mostly Early Iron Age in date, but including residual late Bronze Age sherds and a large scored ware body sherd of the middle Iron Age that is probably intrusive. Pit G[1690] produced 56 sherds (560g) of probable early Iron Age pottery.

DISARTICULATED HUMAN CHARNEL FROM SITES D AND G

All of the disarticulated human bone fragments come from the Iron Age settlement at Sites D and G, which lay upon the flood plain of the Ouzel Brook.

Three fragments of humerus came from fills within pit cluster DPC2 (Fig 3.7), probably originating from a single neonate skeleton. The bone fragments were recovered amongst a larger assemblage of animal bone and pottery. The pit cluster is associated with a radiocarbon date in the early Iron Age, 750–685/655–640/590–405 cal BC (95% confidence, 2430±30BP, Beta 456910).

Two fragments of human skull were recovered from layer D[1231] overlying this pit cluster. The layer also contained large quantities of pottery and animal bone, from which early Iron Age radiocarbon dates were produced (Table 5.12).

A single fragment of frontal cranium and a moderate collection of early to earlier middle Iron Age pottery come from middle fill of large pit G[1516] in cluster GPC2. The context is associated with a radiocarbon date of 765–410 cal BC (95% confidence, 2460±30BP, Beta 456917).

A fragment of skull occipital bone came from the surface fill of ditch G[2052], which was the latest cut on the south-west perimeter of the main settlement at Site G and falls within the later middle Iron Age (*c.*250–100BC) period of occupation.

EARLIER-MIDDLE IRON AGE DISPERSED SETTLEMENT AT SITES D AND G

In the early part of the middle Iron Age permanent settlement was evident at Site G, comprising a dispersed settlement with possible domestic structures represented by three ring ditches, small rectilinear and curvilinear enclosures and numerous pits, including pit clusters (Fig 3.15). The features were found in low to moderate quantity and light density. A single small enclosure of uncertain type was possibly contemporary at Site D.

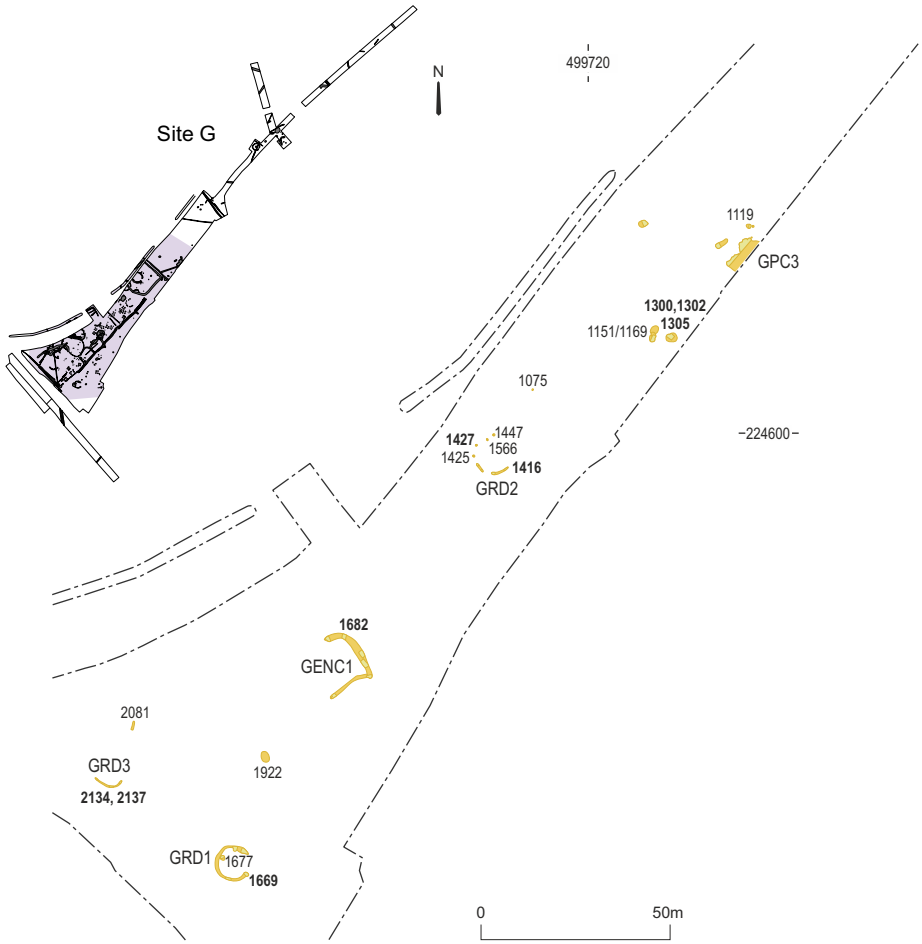


Fig 3.15 Plan of earlier-middle Iron Age features, Site G

The unenclosed settlement extended over an area of *c.*150m by 50m with elements that lay well beyond the limits of subsequent enclosure development in later periods.

RING DITCH GRD1

The ring ditch lay at the southernmost extent of the site and was an undated isolated feature assigned to the period because it lay over 10m clear of any later enclosed settlement boundaries and was clearly cut by a later-middle Iron Age pit. It was roughly circular in plan, enclosing an area 7.9–8.1m in diameter. There was an entrance, 4.5m wide, on the east side. Five slots examined *c.*40% of the total ditch circuit, which varied from 0.36–0.96m wide by 0.20–0.43m deep (Fig 3.16). The profile was U-shaped with a mostly

flat base, and contained a fill of mid grey-brown silty clay with occasional charcoal flecks. Animal bone fragments were sparse. A single undated pit, G[1677], formed the only internal feature lying just within the western side of the ring ditch. It was 1.24m wide by 0.29m deep.

RING DITCH GRD2

This ring ditch was 120m to the north-east of GRD1 and survived as two adjacent segments of a curvilinear arc which would have had a projected internal diameter of *c.*10.5m. The ditches were 0.46–0.53m wide and 0.14–0.23m deep with a U-shaped profile of moderate sloping sides and a flat base (Fig 3.16). After a period of natural weathering, resulting in a white to light/mid brown silty clay fill, 0.04–0.14m thick, the ditches were filled with an upper deposit of dark grey silty clay containing seven Iron Age pottery sherds (75g). Four undated postholes lay along the projected line of the ditches, all concentrated on the northern side. No internal features were apparent.

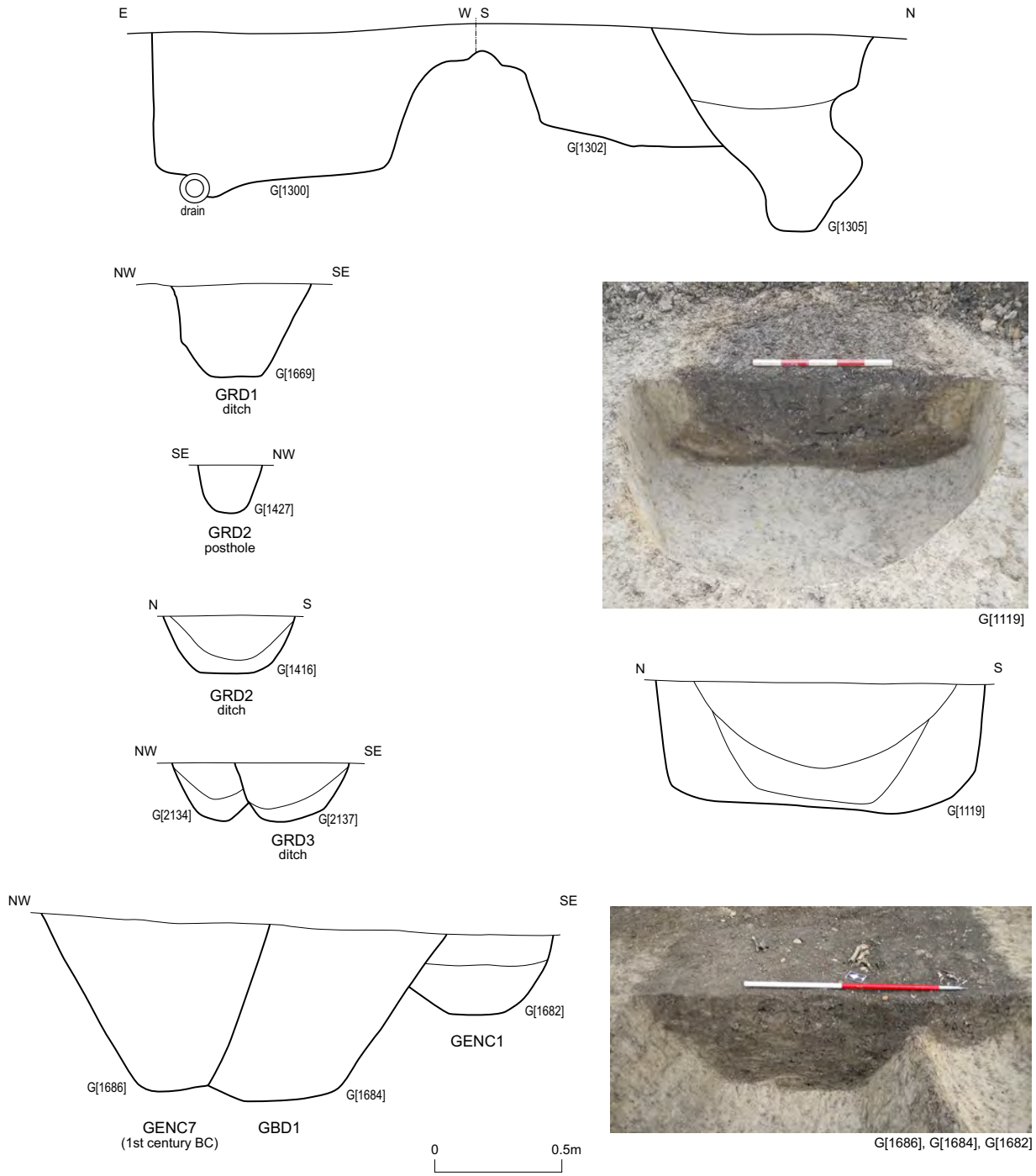


Fig 3.16 Earlier-middle Iron Age feature profiles, Site G

RING DITCH GRD3

Part of a probable ring ditch, GRD3, lay 40m to the north-west of GRD1. This comprised a curvilinear ditch, 8m long, with a projected internal diameter of *c.*10m. The ditch was consistent at 0.50–0.52m wide and <0.24m deep with a steep-sided U-shaped profile and a flat base (Fig 3.16). The silty clay fill varied from light brown to grey to dark brown in colour, which suggests various sources were used to backfill the ditch. The excavated sections of the arc produced no artefacts or ecofacts, while the south-east terminal contained 22 Iron Age pottery sherds (150g) and occasional animal bone. No features were found to lie within the projected circuit.

ENCLOSURE GENC1

The north-eastern side of a probable small sub-rectangular enclosure lay between ring ditches GRD1 and GRD2 (Fig 3.15). The other half of the enclosure had presumably been removed by a later-middle Iron Age boundary ditch GBD1 and a later enclosure, GENC7 (Fig 3.16). The enclosure had an internal area of *c.*17m by 11m. Two separate ditches abutted each other at right angles. The eastern side was 10m long with a steep-sided U-shaped profile 0.85m wide and 0.49m deep and a rounded base. The northern side, and the recut, were 14m long with a rounded corner to the north.

The earlier cut of the northern ditch was over 0.76m wide and 0.80m deep, but contained only 27 animal bone fragments. The recut lay on the inner edge and was larger, 1.00–1.70m wide and 0.63–0.95m deep, with steep sides and a slightly rounded base. Natural silting was evident from the base and sides in places with the remainder of the fill comprising dark grey-brown silty clay. A moderate quantity of highly fragmented pottery came from three excavated slots, totalling 545 sherds (990g), which date to the earlier-middle and later-middle Iron Age, suggesting a date around 250–200BC. Other artefacts include daub/fired clay and 77 animal bone fragments. Very few cereal and segetal/grassland seeds were observed.

PITS CLOSE TO RING DITCHES GRD1 AND GRD3

Very few pits could be dated to the earlier middle Iron Age within the southern part of the site. This paucity is partly due to a lack of dating and many undated pits have consequently been assigned to the 1st century BC on the basis that they lay mostly within the extent of the enclosure defined in that later period (see Fig 3.18). However, two undated pits G[1922] and G[2081] were cut by later-middle Iron Age ditches and are therefore assigned to this earlier phase. Pit G[1922] contained 27 animal bone fragments, weighing over 1kg.

PITS TO THE NORTH-EAST OF THE SETTLEMENT

The main concentration of pits belonging to this phase comprised 13 pits and three postholes which lay *c.*50–75m to the north-east of the nearest earlier-middle Iron Age roundhouse, GRD2 (Fig 3.15). The pits were located over an area of *c.*400sqm. Only two pits were dated by pottery or by radiocarbon analysis, but the other pits are included in this phase, either because of stratigraphic relationships with, or proximity to, dated features.

The pits have a notable absence of settlement/domestic waste when compared to the early Iron Age pit clusters discussed above, which contained fairly large quantities of artefact and ecofact material. Even though the pits of pit cluster GPC3 are of a similar type and density to the earlier clusters, the overall pattern of pit digging appears more dispersed in this period, and the lack of artefactual remains suggests they may have had a different function.

The earliest datable pits in this area were situated around *c.*50m north-east of GRD2 and comprised three relatively small intercutting pits; G[1300], G[1302] and G[1305]. These pits were within an area of *c.*3m by 2m and were 0.42-0.78m deep with the latter pit possibly the latest in the sequence (Fig 3.16). Pit G[1305] produced 19 early Iron Age pottery sherds (325g) and 10 animal bone fragments. The radiocarbon date from an animal tooth in this pit was 410–380 cal BC (95% confidence, 2340±30BP, Beta–456915) and is transitional from the early to earlier-middle Iron Age, perhaps overlapping with the previous phase.

A second dated pit, G[1119], lay to the north-east. The pit was U-shaped, 1.30m wide by 0.50m deep, with near vertical sides and a flat base (Fig 3.16). The basal fill was light grey weathered sandy clay natural silting with a darker sterile middle fill above it. The upper fill contained a moderate quantity of pottery (75 sherds, 1,300g) from dark grey silty clay with charcoal flecks.

Two undated intercutting pits, G[1151] and G[1169], were truncated by an enclosure ditch of 1st-century BC date, indicating they must pre-date the ditch. Collectively these pits were 5.0m by 2.0m in plan and were 0.29m deep. A single isolated and undated pit, G[1075], lay closest to roundhouse GRD2, and was also cut by a later-middle Iron Age ring ditch, GRD4.

Lying partly beyond the eastern edge of the excavation was pit cluster GPC3 which comprised four undated intercutting pits over an area of 9.5m by more than 3.5m (Fig 3.15; Table 3.18). The pits were all sterile of finds. As individual features they did not vary greatly in shape, form or profile from other pits in the vicinity being around *c.*0.5–1.2m wide and *c.*0.3–0.6m deep and usually cut with fairly steep sides and a flat base. The fill

materials tended to be derived from the surrounding natural chalky clay, mainly with light grey natural silting material at the base and a progressively darker silty clay matrix towards the surface. To the east there were four further isolated pits which did not produce any datable material or stratigraphic relationships; they are associated with this phase by proximity only.

ENCLOSURE DENC2 AND PIT D[1227]

Earlier-middle Iron Age occupation evidence within Site D was limited to the northern edge of the stripped area (Fig 3.17).

A probable enclosure, DENC2, lay partly within the excavated area, with the remainder to the north of the site recorded by geophysical survey (Fig 3.3; GPC 2014, figs 12-13). The full extent of enclosure DENC2 may have been sub-rectangular or oval in shape. There were no internal features within the area exposed, which was *c.*17m long and at least 12m wide. The ditch was between 0.90–1.1m wide and 0.45m deep, with moderate to steep (45–70°) sloping sides and a flat base. A moderate collection of 25 middle Iron Age pottery sherds and a small quantity of calcined and burnt animal bone were recovered from the terminal.

A single small middle Iron Age pit, D[1227], lay at the north-western extent of Site D (Fig 3.17). The pit was 1.25m wide and 0.28m deep and from its primary fill came a La Tène Type I brooch, which dates *c.*400–200BC and in the upper fill were two sherds of Iron Age pottery.

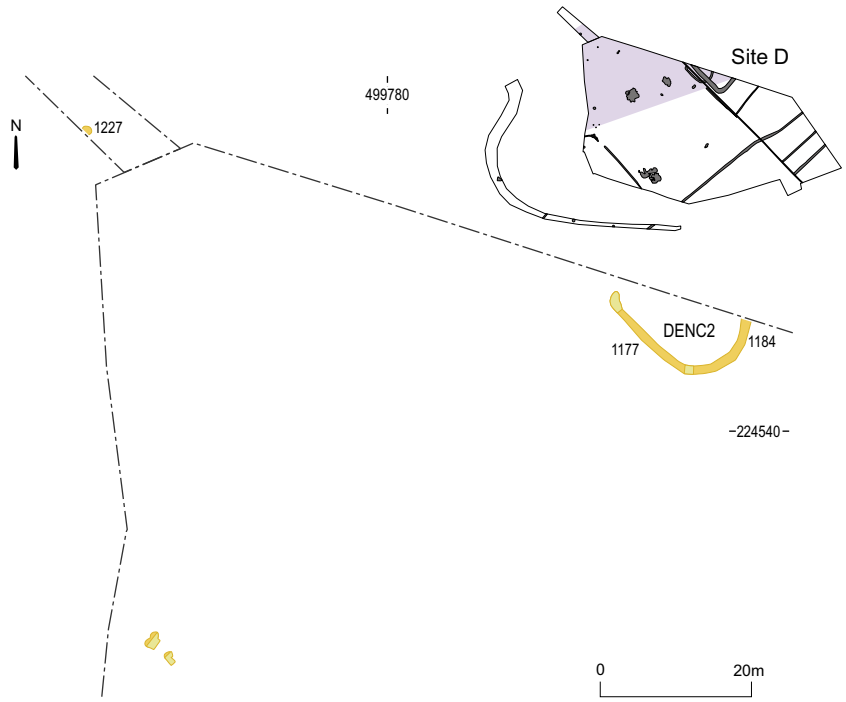


Fig 3.17 Earlier-middle Iron Age enclosure ditch of DENC2, Site D

LATER-MIDDLE IRON AGE ENCLOSED SETTLEMENT AT SITE G

In the later-middle Iron Age, Phase 3, the settlement at Site G slightly condensed in size and consolidated into a relatively dense linear settlement characterised by ring ditches, small rectilinear enclosures and field boundaries within an area *c.*210m by 90m at the western end of the scheme (Fig 3.18). The focus remained consistent with the previous open settlement of Phase 2, although the intensity of features greatly increased. The settlement was largely enclosed on two sides by boundary ditches, GBD1-2, demarcating the south-eastern and south-western limits of occupation, perhaps as part of one large enclosure of which only these partial boundary ditches remain. A north-west boundary is conjectured to lie beyond the scheme on the basis of faint linear anomalies in the geophysical survey data, similar to those represented by boundary GBD1 (Figs 3.4-3.5; Simmonds and Fisher 2008, figs 3-4). There was no evidence for a north-east boundary for the settlement prior to the 1st century BC.

The main internal settlement comprised five ring ditches GRD4-8, three enclosures, GENC2-4, several ditches and many pits, including a number which were found to cut the remains of the abandoned earlier-middle Iron Age roundhouse, GRD1. Extending from the south-east boundary GBD1 was a further ditch, GD3, which may indicate the boundary of nearby field systems.

Over 80% of the main settlement area was the subject of detailed excavation, with other ancillary works in the area monitored by general watching brief.

THE SOUTH-EASTERN SETTLEMENT BOUNDARY, GBD1

This linear boundary was 155m long, aligned north-east to south-west, and comprised ditch segments separated by entrances. Enclosure GENC2 extended off from its inner northern side (Fig 3.19). The ditch was divided into six individual ditch segments of varying length with four of these successively offset next to each other. The gaps between the segments varied from 1.0-2.0m wide, with the largest at the south-west end being 5.8m wide. This arrangement suggests that the ditches were created piecemeal and the boundary may have extended gradually to the north-east as the settlement grew. The duration of this growth

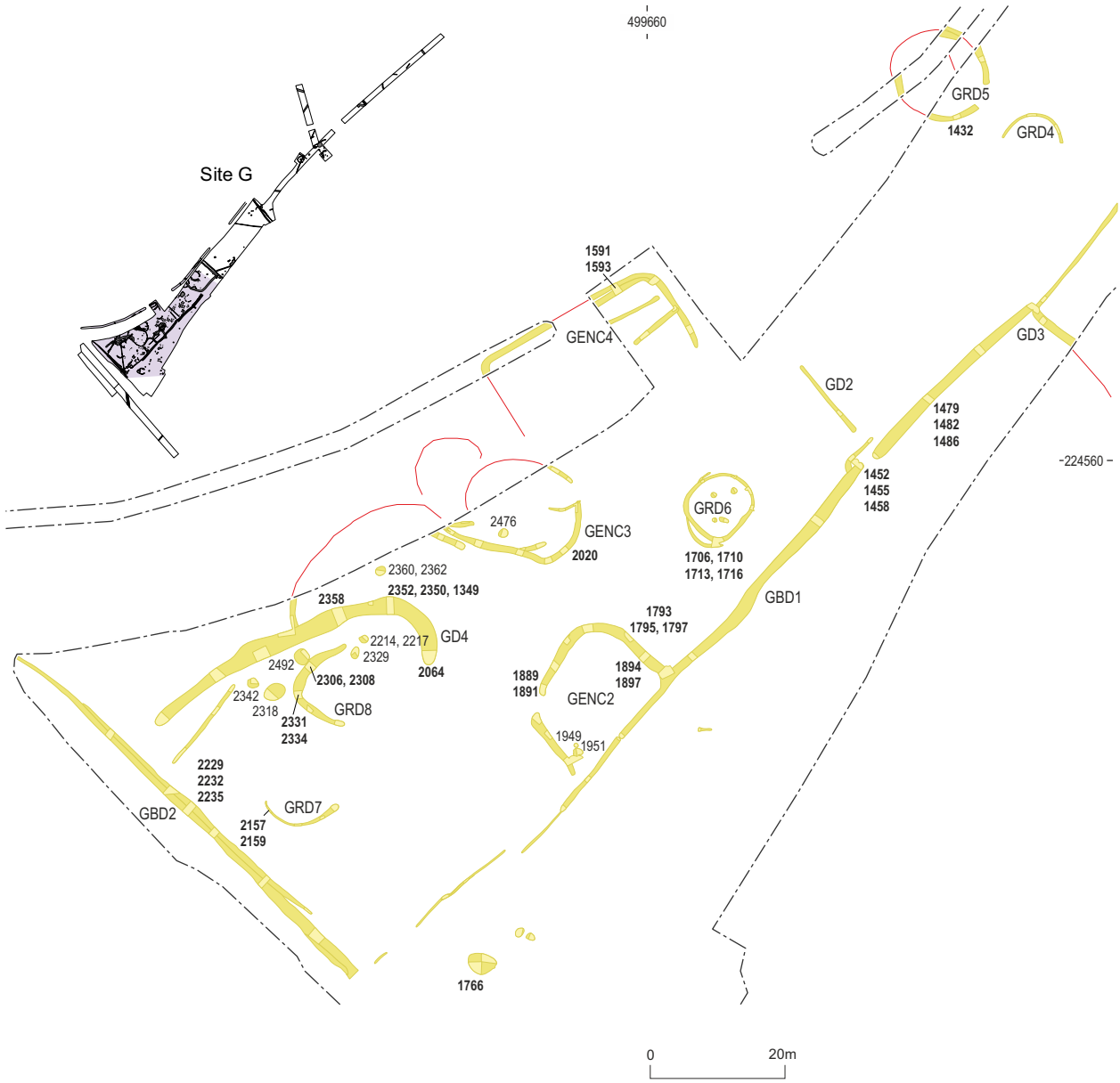


Fig 3.18 Layout of the later-middle Iron Age settlement, Site G

was fairly rapid as the entire boundary falls within the same broad later-middle Iron Age phase. Parts of the boundary may also have originated as less substantive features that left no earthfast remains, such as fences or a line of bushes, and these may have been formalised with ditches later on.

The boundary went through several stages of recutting, and pottery from the fills indicates this maintenance was being undertaken until the latter part of the 1st century BC (Fig 3.19). This recutting may also account for the loss of some stretches of the initial boundary segments by truncation.

The boundary is described from the south-west to the north-east, but may not necessarily have developed in this order.

The relationship between the south-eastern boundary, GBD1, and the boundary to the south-west, GBD2, was uncertain because a later pit dated to the 1st century BC had removed any stratigraphic relationship at the corner of the enclosure (G[2129], see Fig 3.36). The later pit appeared to block an earlier entrance, 2.5m wide, between the terminal of south-western boundary GBD2 and a short stretch, 2.4m long, of the GBD1 ditch, 0.30m wide by 0.18m deep.

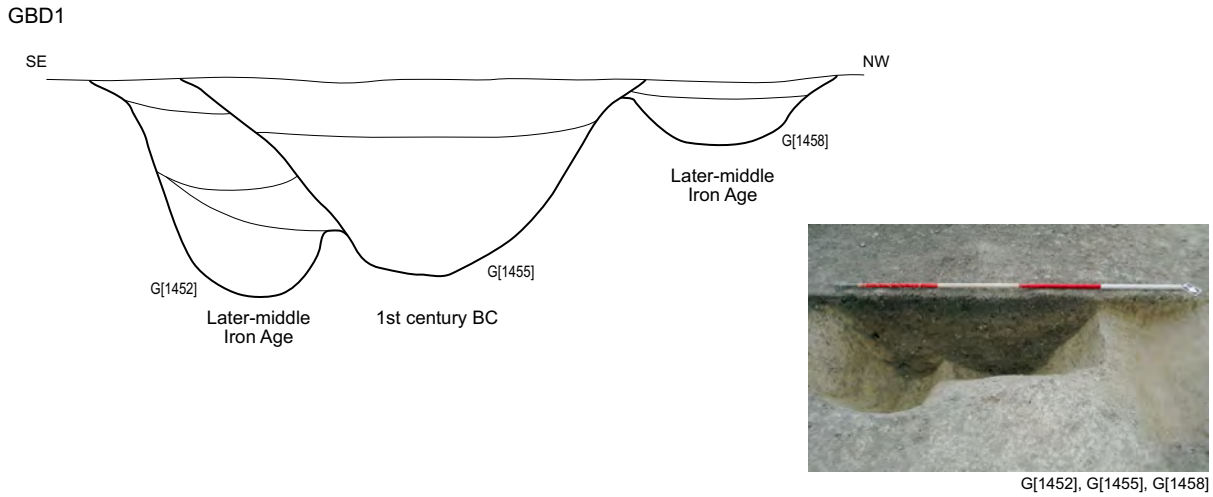
Following along the line of boundary GBD1 to the north, there was now another much larger entrance, 5.8m wide, before the boundary resumed with a 5.5m long segment of ditch of similar proportions to the adjacent ditch to the south-west. The next segment was also of similar proportions, and was 11.4m long. This overlapped slightly with the previous ditch and

Fig 3.19 Boundary GBD1 and its recuts, looking north-east, Site G

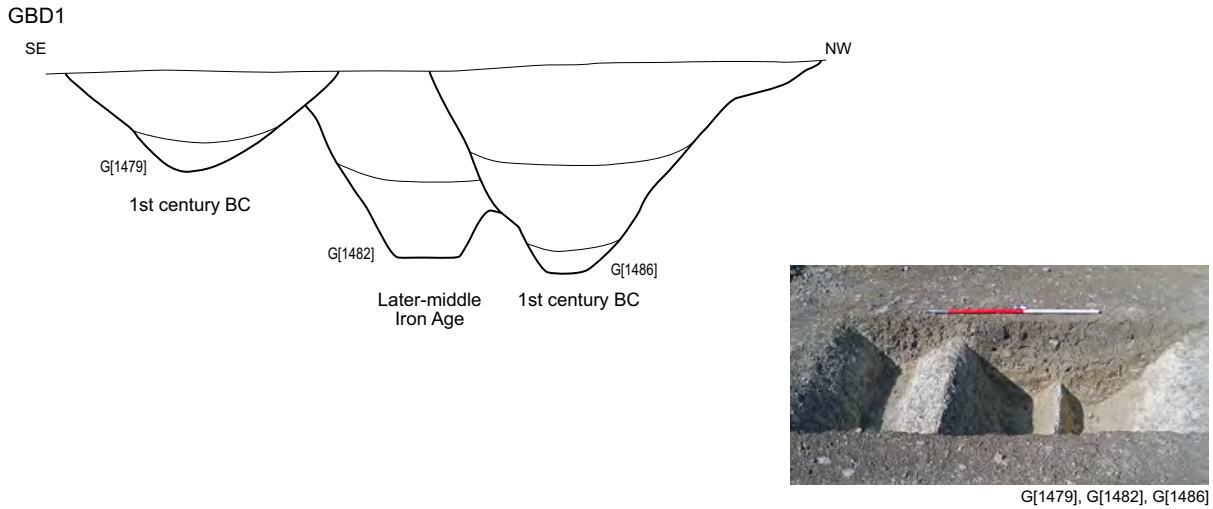
meandered a little to the south-east. The profile was steep-sided with a flat base and the fill comprised dark brown clayey silt. At the end of this segment was a 1.5m wide gap. The next ditch segment was offset from the line 2.0m to the south-east and was 22.5m long, 0.3–0.4m wide at the south-west end and was noticeably almost twice as wide to the north-east stretch where it had been recut. The depth and fill remained consistent, and although the profile was wider it still had straight sides. This was followed by a narrow gap, 0.2m wide, between ditch segments. The next ditch segment remained continuous over 54m and gradually got wider and deeper along its course. The ditch was V-shaped, 0.70–1.09m wide and 0.35–0.70m deep with moderate to steep sloping sides and a slightly rounded base, which remained consistent to its north-east end (Fig 3.20). The lower fill comprised light grey-brown or mid grey silty clay accumulated natural silting turning towards darker grey silty clay in its upper horizon, seemingly the product of gradual accumulation.

The later-middle Iron Age settlement seems to have been initially partitioned at the north-east end by a perpendicular ditch, GD2, with a gap at the corner of the enclosure. The end of ditch GD2 was *c.*3m to the north-west of the main boundary and it divided the main portion of the site from two unenclosed ring ditches, GRD4 and GRD5, to the north. The surviving ditch was 0.60m wide by 0.30m deep and was recut in the 1st century BC.

Aligned with the position of partition ditch GD2, there was a corresponding 2.0m wide break in the main boundary ditch GBD1. This possible entrance was modified by a 6m long gully on the same alignment as the main boundary GBD1, offset by *c.*1.0m to the north-west. This modification may have functioned to control movement across the boundary but given the narrow width would only have been accessible for pedestrians and small to medium-sized animals in single file.



G[1452], G[1455], G[1458]



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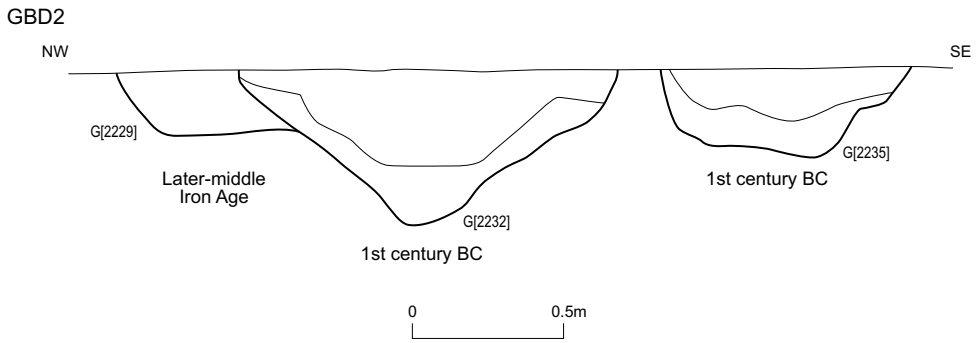


Fig 3.20 Selected cross sections of Boundaries GBD1 and GBD2, Site G

Continuing north along boundary GBD1, the ditch on the north-east side of this possible entrance was off-set by 0.5m to the south-east, creating a gradually migrating alignment. At this part of the site, the boundary GBD1 had been recut at least three times, probably later in the 1st-century BC (Fig 3.19). The original cut continued north-east for 32m, with a steep-sided V-shaped profile over 1.0m wide and 0.62–0.75m deep (Fig 3.20). The lower fill was light–mid grey-brown silty clay derived from accumulated natural silting, while upper deposits were varied shades of mid–dark grey brown silty clay indicating occasional episodes of tipping. Finds from this lower fill were, however, few and comprised 11 sherds (240g) of broadly middle Iron Age pottery.

The ditch segment that lay furthest to the north-east end of GBD1 was nearly 20m long and was abutted by ditch GD3 to the north-east. The ditch segment of GBD1 was 0.70–0.84m wide and 0.25–0.27m deep with moderate or steep sloping sides and flat base. The fill comprised mid–dark grey-brown silty clay. The boundary ended its course at this significant point in line with ring ditches GRD4 and GRD5. There was no evidence for a later-middle Iron Age ditch bounding their north-east side at the extent of later-middle Iron Age settlement.

Only a small fragment of the ditch GD3 lay within the excavated area. It extended at 90º south-east from boundary GBD1 and it could be traced for more than 40m south-east as a geophysical anomaly consisting of three further segmented ditch sections (Fig 3.3; GPC 2014, figs 12-13). The ditch was 1.22m wide and 0.50m deep, filled with a gradual accumulation of grey silty clay natural silting with no finds. It is thought that this ditch may represent possible field systems extending to the east of the settlement.

THE SOUTH-WESTERN SETTLEMENT BOUNDARY, GBD2

The south-west boundary ditch, GBD2, was not continuously segmented (Fig 3.18). Instead, it was formed by two long continuous and slightly overlapping ditches, which together formed a boundary 45m long, with terminals at each end, and later recutting. The main ditch was around 0.40m wide by 0.10m deep and increased in size to up to 0.95m wide by 0.33m deep towards the north (Fig 3.20). The fill was light–mid grey silty clay derived from natural silting and was a gradual accumulation devoid of finds.

At the south end, where the ditch terminated there was a possible entrance way which was *c*.2–3m wide. On the southern side, the route of the boundary might have been continued by a slightly offset shorter section of ditch. The short ditch could only be traced for 9m before its south-east terminal was cut away by a large later pit where it would have abutted GBD1. The offset ditch was <1.0m wide and <0.53m deep.

During this same period the GBD2 boundary ditch was recut on its south-west side, indicating a fairly rapid accumulation of material had acted to infill the boundary. The recut was over 68m long and extended along the full length of the settlement's southern side, blocking off any previous possible entrances. The ditch varied in size; being between 0.43–1.70m wide and 0.21–0.57m deep. There was little natural silting material at the base of the ditch and the majority of the fill was mid–dark grey brown silty clay loam that produced 28 pottery sherds (365g) and indicated that it was filled in the 1st century BC.

RING DITCHES GRD4-8

Five probable ring ditches, GRD4-8, were located within the late middle Iron Age settlement enclosure (Fig 3.18). They varied in size between c.8m and c.13m in diameter, and did not appear to be further enclosed within their own boundaries or small enclosures. Wide open areas lay in between the ring ditches, which may have been subdivided by some other means such as hedges or fencelines, or have been left open for free internal movement. The survival of the ring ditches and any internal features within varied, but it is considered likely that ring ditches GRD4, 5, 6 and 7 at least represent the remnants of roundhouses. Evidence for possible hideworking was recovered from GRD6 which suggests the roundhouse may have had a partial craftworking function, although it could also have been domestic. GRD4 and GRD5 seem to have been single phase ditches, where the remaining ring ditches each had more than one phase. GRD7 was notable because it appeared to be a continuation and expansion of the earlier phase ring ditch GRD3, which suggests a level of continuity to the settlement and habitation. All of the roundhouses in this phase may have been broadly contemporary, and all seem to have gone out of use by the 1st century BC.

RING DITCHES GRD4 AND GRD5

At the northern end of the settlement there were two adjacent ring ditches, GRD4 and GRD5 (Fig 3.18). Both ring ditches were cut by a later Phase 4 (1st century BC) enclosure ditch. Only the northern half of ring ditch GRD4 survived, which demarcated an area *c*.8m in diameter. The ditch was 0.38–0.45m wide and 0.12–0.22m deep with moderate to steep sloping sides and a flattish base. The mid–dark grey-brown silty clay fill contained a middle to late Iron Age pottery assemblage which included part of a shouldered jar (50 sherds, 1,550g) that indicate the ring ditch was probably deliberately infilled with domestic waste shortly before the later Phase 4 enclosure was laid out.

To the north-west was ring ditch GRD5, which had been detected on the geophysical survey data (Figs 3.4-3.5;

Simmonds and Fisher 2008, figs 3-4). The south-eastern entrance was investigated by detailed excavation and parts of the ring ditch were also recorded in section during the general watching brief following the cutting of the roadside drainage ditch with a V-shaped bucket. Ring ditch GRD5 enclosed an area *c.*11.5m in diameter. The width of the south-east entrance is not known because one terminal had been truncated by a 1st-century BC enclosure ditch. The ring ditch was 0.55–0.80m wide and 0.36–0.45m deep with steep sloping sides and a rounded base near the entrance (Fig 3.21). Mid brown clay-silt fill produced 16 middle-late Iron Age pottery sherds (155g), a few wheat grains and sparse other unidentifiable cereal grains. This ring ditch also seems to have gone out of use in the early part of the 1st century BC.

RING DITCH GRD6

Ring ditch GRD6 was sited in the centre of the settlement, about equidistant between the pairs of ring ditches, GRD4-5 to the north and GRD7-8 to the south. Ring ditch GRD6 was seen to cut the edge of the earlier-middle Iron Age enclosure GENC1 from the previous phase. It was sub-circular in plan enclosing an internal space 8.8m north-east to south-west, by 8m north-west to south-east. No entrance could be discerned and a large medieval furrow masked much of its northern extent (Fig 3.22). The ditch was 0.38m wide on its eastern side and 0.88m wide on its west side and 0.24–0.54m deep, steep-sided with a narrow rounded base (Fig 3.21). The fill was, for the most part, mid brown silty clay with a discrete dump of dark grey-brown to nearly black silty clay in its north-eastern arc. This dump of waste material comprised 42 pottery sherds (560g), broadly dated to the later-middle to late Iron Age with some sherds suggesting a date as late as the 1st century BC. A small concentration of cattle horn cores and tarsals (foot bones) were also recovered from this context, material that is often characteristic of butchery waste, skinning or hideworking. The south-western arc was recut on its external side for *c.*50% of the circuit, 0.90m wide by 0.14m deep, and allowed to silt naturally.

Five undated postholes within GRD6 do not match the pattern of later four-post structures, two postholes of which cut ring ditch GRD6. They were fairly large at 0.59–0.75m diameter and 0.22–0.40m deep, and the fills were dark grey silty clay.

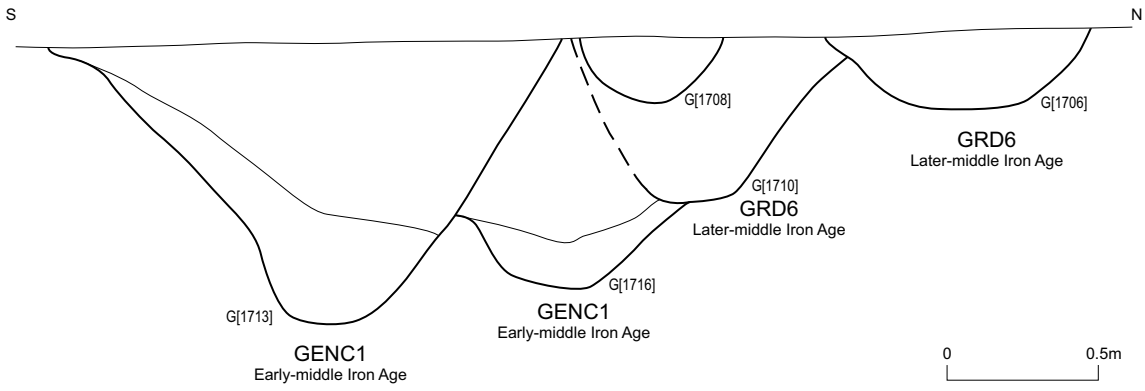


Fig 3.21 Ring ditches GRD5-6, Site G

Fig 3.22 Ring ditch GRD6, looking south-west, Site G

RING DITCHES GRD7-8

Within the south-east extent of the settlement area the earlier-middle Iron Age ring ditch, GRD3, had been recut on a larger scale by GRD7. This later recut reflected the same poor preservation as its forebear and only survived in the south quarter of its arc but is likely to have encircled a *c.*13m diameter area. The ditch was 0.95m wide and 0.23m deep from its eastern terminal and became progressively narrower and shallower further westwards until it faded into a soil mark. The profile was steep-sided with a flat base and was infilled with a light brown silty clay resulting from natural silting (Fig 3.23). In some areas the upper ditch was infilled by dark brown silty clay with charcoal staining indicative of occupation debris, containing animal bone and a few sherds of late Iron Age pottery (283g).

Ring ditch GRD8 lay directly to the south of ditch GD4 and was C-shaped in plan with an arc 11m long and 5.5m wide (Fig 3.23). The ditch was 0.84–1.85m wide and 0.38–0.58m deep with steeply-sloping, slightly ragged sides and a rounded base (Fig 3.23), and seemed to have been recut at least once. The irregular shape and broad width of the ring ditch may suggest this was the remnants of a small ditched enclosure rather than a roundhouse ditch as has been suggested for the other four ring ditches. The fill was largely undifferentiated dark grey-black silty clay loam throughout. The ditch produced 39 animal bone fragments and 84 pottery sherds (1,135g) which indicated that the ditch was infilled during the 1st century BC at roughly the same time as ditch GD4, which lay adjacent.

ENCLOSURES GENC2-3

Two enclosures, GENC2 and GENC3, lay within the central portion of the settlement (Fig 3.18). Enclosure GENC2 was probably a successor to the earlier-middle Iron Age enclosure GENC1, which was of similar size and form, and would have been partly responsible for the loss of the south-west side of that enclosure which it truncated away.

GENC2 was sub-rectangular, abutting the south-eastern boundary ditch, GBD1, with a moderate-sized ditch on the other three sides enclosing an internal area *c.*18m by 12m. An entrance, 1.8m wide, could be observed on its west side. The enclosure ditch was primarily V-shaped in profile, 1.18–1.60m wide and 0.81–1.00m deep except at the entrance where the terminal narrowed and became shallow (G[1897] and G[1891], Figs 3.24 and 3.26). Initially, the deposit was natural silting material derived from the chalky clay natural but subsequent alternate darker silty clay soil and lighter grey-brown clay indicated periodic dumps of waste that were noticeable as tip lines and patchy variations in the fill (Fig 3.24). The enclosure ditch infilled fairly rapidly and the enclosure ditch was substantially recut along its full circuit by a ditch 1.0m wide by 0.54m deep. An assemblage of 150 pottery sherds (1,730g) was recovered mainly from the later-middle Iron Age, but also including some examples of 1st-century BC date where the ditch on the north-east side was cut by enclosure GENC7. There were few charred seeds of any variety amongst the small quantities of charcoal.

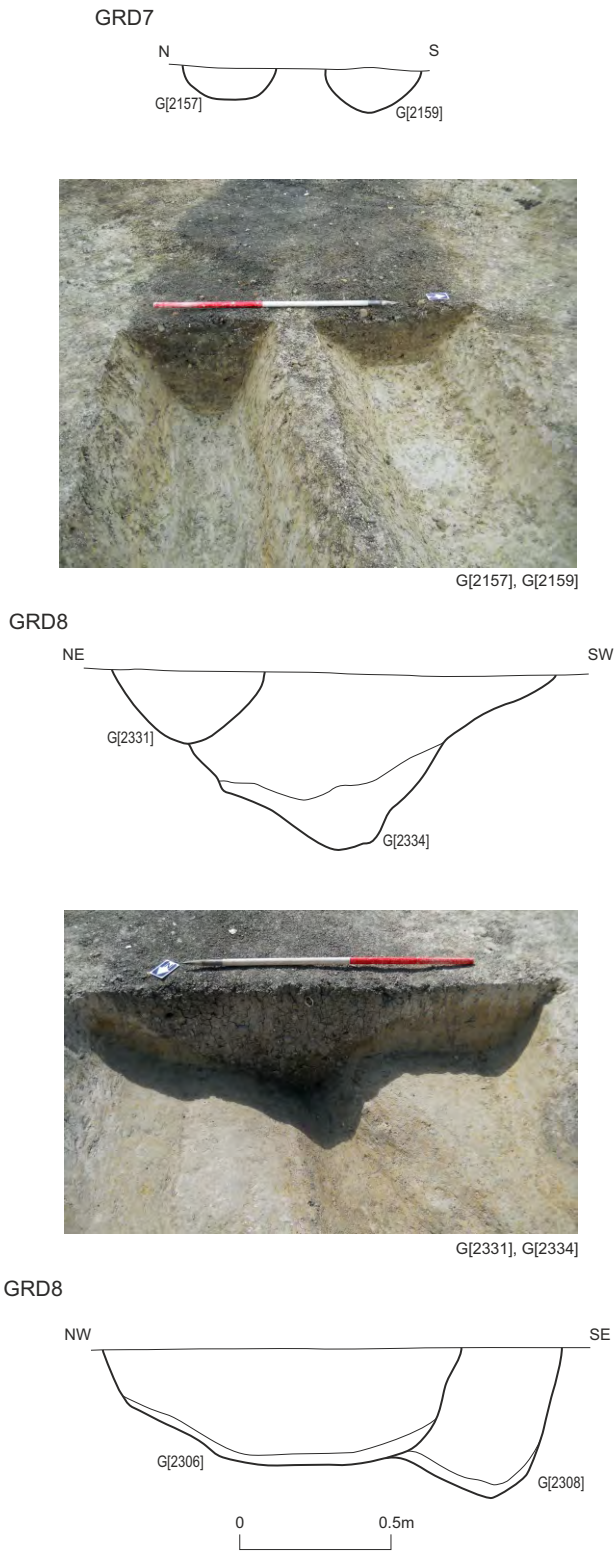


Fig 3.23 Ring ditches GRD7 and GRD8, Site G

Within the southern corner of enclosure GENC2 there were two intercutting pits, G[1949] and G[1951]. Each pit was *c.*0.50m in diameter and 0.23m deep. Three middle Iron Age sherds (55g) with scored ware decoration were recovered from pit G[1949]. The low quantities of artefactual remains and absence of any clear structural features suggests that this enclosure was not domestic, and may have been an animal pen.

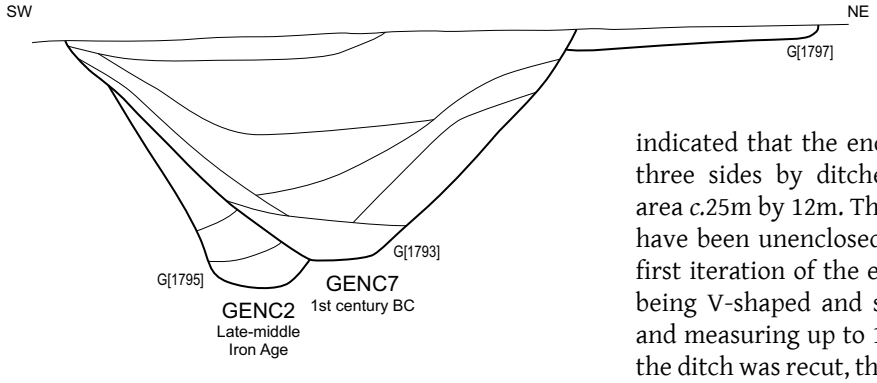
The other enclosure, GENC3, was probably more central to the settlement. This oval enclosure was successively recut from the later-middle Iron Age into the 1st century BC, once upon its north-eastern side and several times on its southern-western side (Fig 3.25). The reason why only one side required so many recuts is uncertain, but it is thought likely that this may be associated with an area of intense activity outside and to the south-west of enclosure GENC3, which may have caused this side of the ditch to silt up faster than the other.

The initial layout of enclosure GENC3 was over 15m long and 13m wide; its western extent lay beyond the scheme, and it was orientated roughly east–west. The earliest ditch on the north side was exposed for 4m with a terminal at its east end, 0.35m wide by 0.24m deep, filled with mid–dark grey-brown silty clay. There are 16 pottery sherds (245g) from this deposit. An entrance, 7m wide, lay at the east end of the enclosure. The earliest ditch on the south side was 0.80m wide by 0.45m deep; it had steep sides and a rounded base, with similar fill to its northern counterpart (G[2020], Fig 3.26). Owing to the density of later recuts, the pottery (12 sherds, 260g) was intrusive and dates to the 1st century BC.

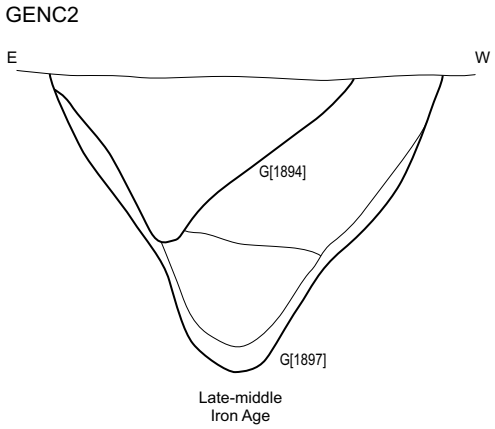
After recutting the east end was extended by 2m eastwards. The enclosure was enlarged and the eastern entrance was reduced in size to 3m. The recut ditch was inconsistent along its course, 0.35–1.0m wide and 0.12–0.55m deep, with moderately steep sloping sides and a rounded base. The southern ditch was noticeably larger along its midsection and narrowed considerably at either end. A moderate quantity of pottery was recovered (150 sherds, 2,200g), and part of a possible triangular loomweight, that indicating that the ditch was backfilled in the 1st century BC. The daub/fired clay, worked bone rib blade and 138 animal bone fragments indicated disposal of a wide range of waste materials. A mix of cattle skull fragments and limb bones was suggestive of both butchery and domestic waste. Cereal grains and wild seeds were few and since they are fairly typical of cultivated land in a wet stream valley could derive from a variety of sources. Although there were no structural remains apparent within this enclosure, it seems likely, given the recutting and quantities of waste material, that it originally demarcated a domestic area. This will be discussed further below.

ENCLOSURE GENC4

Enclosure GENC4 lay on the north side of the settlement (Fig 3.18), and according to the geophysical survey data, may have abutted the northern boundary of the later-middle Iron Age settlement (Figs 3.4-3.5; Simmonds and Fisher 2008, figs 3-4). Excavation



G[1795], G[1793], G[1797]



G[1984], G[1897]

Fig 3.24 Enclosure ditch GENC2, Site G

indicated that the enclosure was bounded on at least three sides by ditches which formed a rectangular area *c.*25m by 12m. The fourth, south-eastern side may have been unenclosed. The ditches which formed the first iteration of the enclosure were fairly substantial, being V-shaped and steep-sided with rounded bases, and measuring up to 1.4m wide by 0.45m deep. Where the ditch was recut, the new ditch had an asymmetrical profile with a gentle slope on the inner face and a steep, near vertical slope on the outside edge (G[1593] and G[1591], Fig 3.26). The fills comprised fairly rapid accumulations of light–mid grey silty clay in which there were very few finds. Shorter ditches lay parallel with the axis of the enclosure, north-east to south-west, and were proportional to the outer ditch; they appeared to represent gradual migration of successive recuts rather than smaller internal features.

DITCH GD4

A large hooked ditch (GD4) was situated at the west end of the site. The alignment and function of the ditch was difficult to determine as it was heavily cut by later features including medieval furrows (Fig 3.18). When compared with the geophysical survey results, its appears likely that ditch GD4 was positioned to separate off the southern corner of the settlement area in which ring ditches GRD7-8 were located and demarcate a zone of activity, *c.*0.18ha in extent. There were also eight pits, two outside and six inside, the circuit of GD4.

Ditch GD4 was gently curvilinear, extending for *c.*30m north-east before turning sharply to the south and forming a hook 12m long. The terminal of the hook lay 16m west from terminal G[1891] of enclosure GENC2 and these features together may have defined a thoroughfare between zones of activity within the settlement. The ditch GD4 had a broad V-shape, 2.40–3.56m wide, with moderately steep sloping sides and a slightly rounded base (Fig 3.27). The ditch had been allowed to accumulate a lower weathering fill derived from the natural chalky clay before gaining a mid–dark brown-grey silty clay with a darker grey backfill deposit above representing the final levelling of the ditch hollow in the 1st century BC. A moderate quantity of pottery (318 sherds, 2,950g) included sherds of this date. Other finds included a blue glass bead and a bone handle, daub with wattle impressions and animal bone (124 fragments). Sparse charred cereal grains and wild seeds could have derived from a variety of sources. These finds will be discussed in more detail below.

Fig 3.25 The south-west side of enclosure GENC3, looking east, Site G

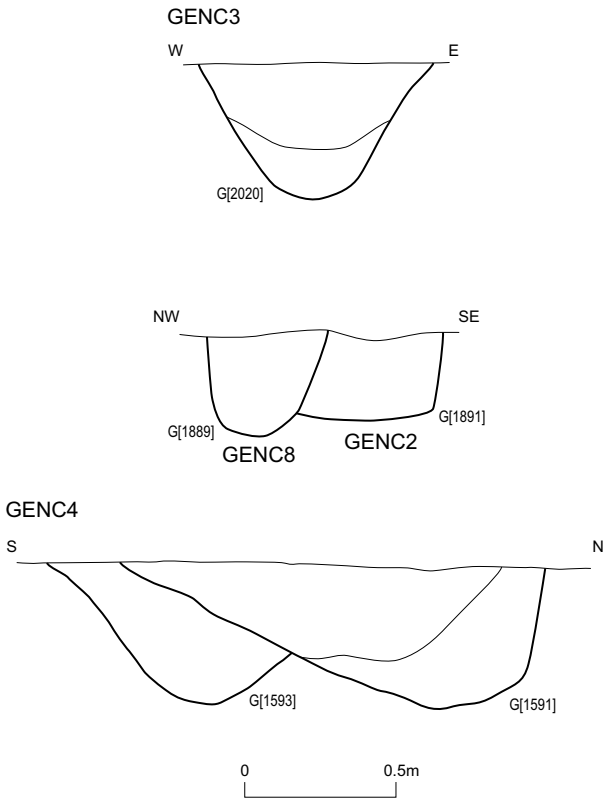


Fig 3.26 Selected ditch profiles, enclosures GENC2-4, Site G

Beyond ditch GD4 to the north lay pit G[2360], which was over 1.0m wide by 0.34m deep, cut by pit G[2362], 1.25m wide by 0.55m deep. The fills were similar and comprised light yellow-brown clay and clay silt. Both pits were cut by a 1st-century BC ditch, but neither of them produced finds.

Inside the curve of ditch GD4 three pits were to the west of ring ditch GRD8, and another three at its northern end. At this north end, pits G[2214/7] and G[2329] were grouped together and of similar proportions; 0.65–0.85m wide and up to 0.45m deep. The pits were oval in plan and rounded in profile with fairly steep sides. The fills were generally dark brown or grey, occasionally with charcoal flecks with pottery (59 sherds, 580g) and animal bone.

Pits to the west of ring ditch GRD8 were oval or sub-circular, and two were of large size. Pit G[2492] was 2.46m wide by 0.80m deep, with steep near vertical sides and a sudden break onto a broad flat base. The fills were lighter yellow-brown at the base, with orange-brown above and a thin band of dark grey silty clay loam at the surface. It appeared that the pit was filled gradually and produced 19 sherds (290g) of pottery and sparse animal bone. Pit G[2318] was 2.10m wide by 0.90m deep, with a very similar profile except that the upper edges were slightly eroded and there was evidence of redeposited natural chalky clay that had collapsed into the pit from the edge. This pit had probably been filled quite rapidly as the contents were fairly homogeneous throughout, consisting of dark black and slightly leached grey silty clay loam. The pit produced 40 sherds (420g) of pottery and occasional animal bone fragments, perhaps domestic waste. Pit G[2342] was similar to those at the north end of the ring ditch, both in size and constituent fill. It produced 11 sherds (145g) of pottery and occasional animal bone. These finds are discussed in more detail below.

A POSSIBLE CESSPIT OUTSIDE THE SETTLEMENT

Three pits to the south-west of the perimeter ditch, GBD1, cut an earlier-middle Iron Age ring ditch GRD1 (Fig 3.18). Pit G[1766] was oval in shape, *c*.5m by 3m in plan, and was 1.30m deep. Like the larger pits to the west of ring ditch GRD8, the sides were near vertical with a broad flat base. The north-west edge was stepped and gently inclined and much of the lower fill may have been tipped in from this side where it was fairly shallow, or washed down from smaller pits at the edge (Fig 3.28).

The pit contained a variety of fills, formed of multiple mixed silty deposits which had stained the

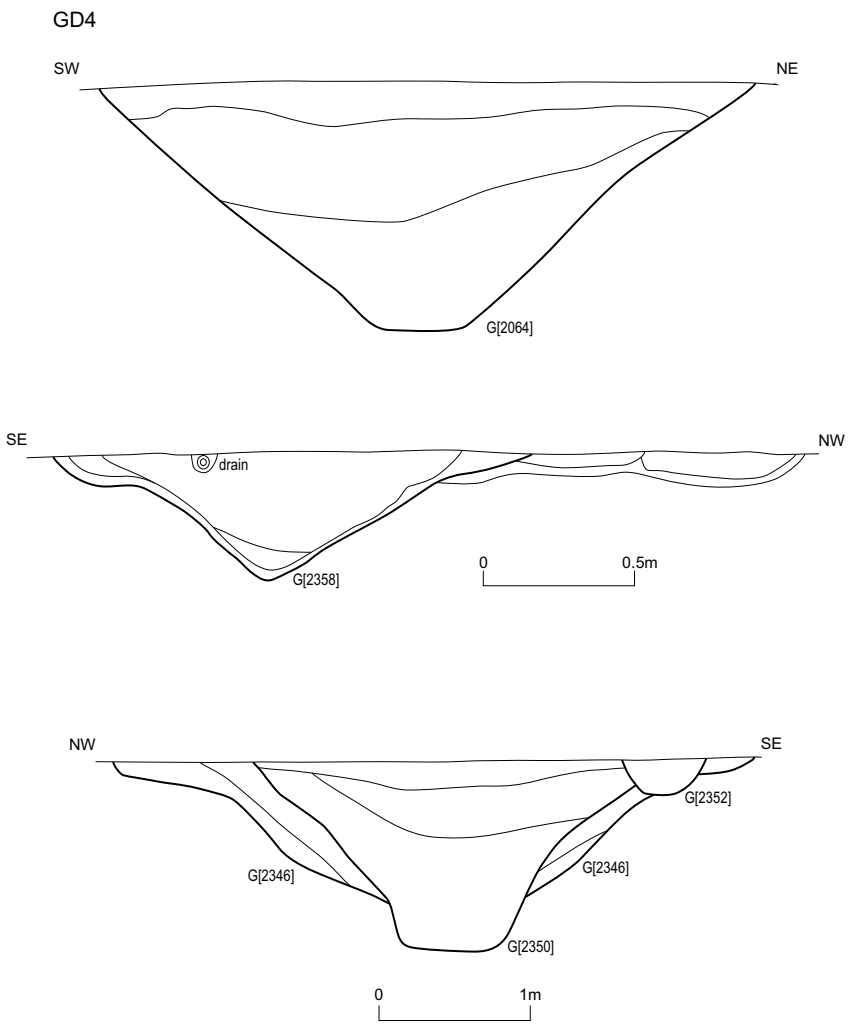


Fig 3.27 Ditch GD4, Site G

surrounding natural, supporting the suggestion that the material had a high fluid content. In some places the deposits formed bands with layers of natural silting or weathering from the sides of the pit which suggests the pit was left open for a period of time. The subsidence of these heavier soils from above into the deposits below demonstrated that the basal fill was probably wet and viscous, perhaps human or animal waste. After a period of use, the pit was backfilled with a 0.40m thick deposit of homogeneous dark grey silty clay loam, which contained the greater proportion of finds. Pottery comprised 22 sherds (320g) dating to the later-middle Iron Age.

The other two pits nearby contained no artefacts and were smaller in size, being 1.00–1.35m wide and 0.33–0.51m deep. The fills were mid grey-brown undifferentiated silty clay, probably derived from natural weathering. The function of these two pits is not clear.

Later-middle Iron Age peripheral activity at Site D

Beyond the main settlement (Site G) and to the east there was a rectangular enclosure, DENC3. The southern corner lay at the edge of Site D but the majority lay outside the scheme and was identified by geophysical survey (GPC 2014, figs 10-13). Three other ditches were probably the earliest elements of a field system on the same rectangular alignment as the settlement, and which went on to form the basis for late Iron Age field systems.

Enclosure DENC3

An earlier small enclosure, DENC2, was superseded by a far larger sub-rectangular enclosure, DENC3, which was *c.*0.3ha in size (Fig 3.29). This enclosure lay *c.*100m to the east of the contemporary settlement at Site G, and while it could not be definitively identified as belonging to this phase, it must have pre-dated the Phase 4 activity on Site D. Probable enclosures and ring ditches to the west between DENC3 and the larger settlement site at Site G were found during geophysical survey for the scheme, perhaps suggesting these features were also associated and possibly of a similar date (Figs 3.4-3.5; Simmonds and Fisher 2008, figs 3-4). There was no indication of any internal features within the enclosure.

The overall extent of the enclosure, as depicted on the geophysical survey results, was *c.*63m long, north-

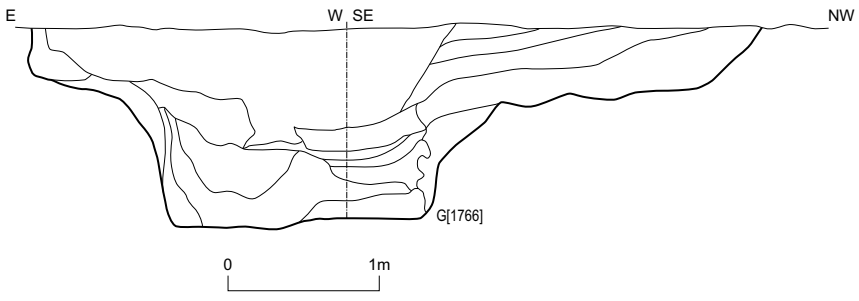


Fig 3.28 Mixed and varied lower fills within pit G[1766]

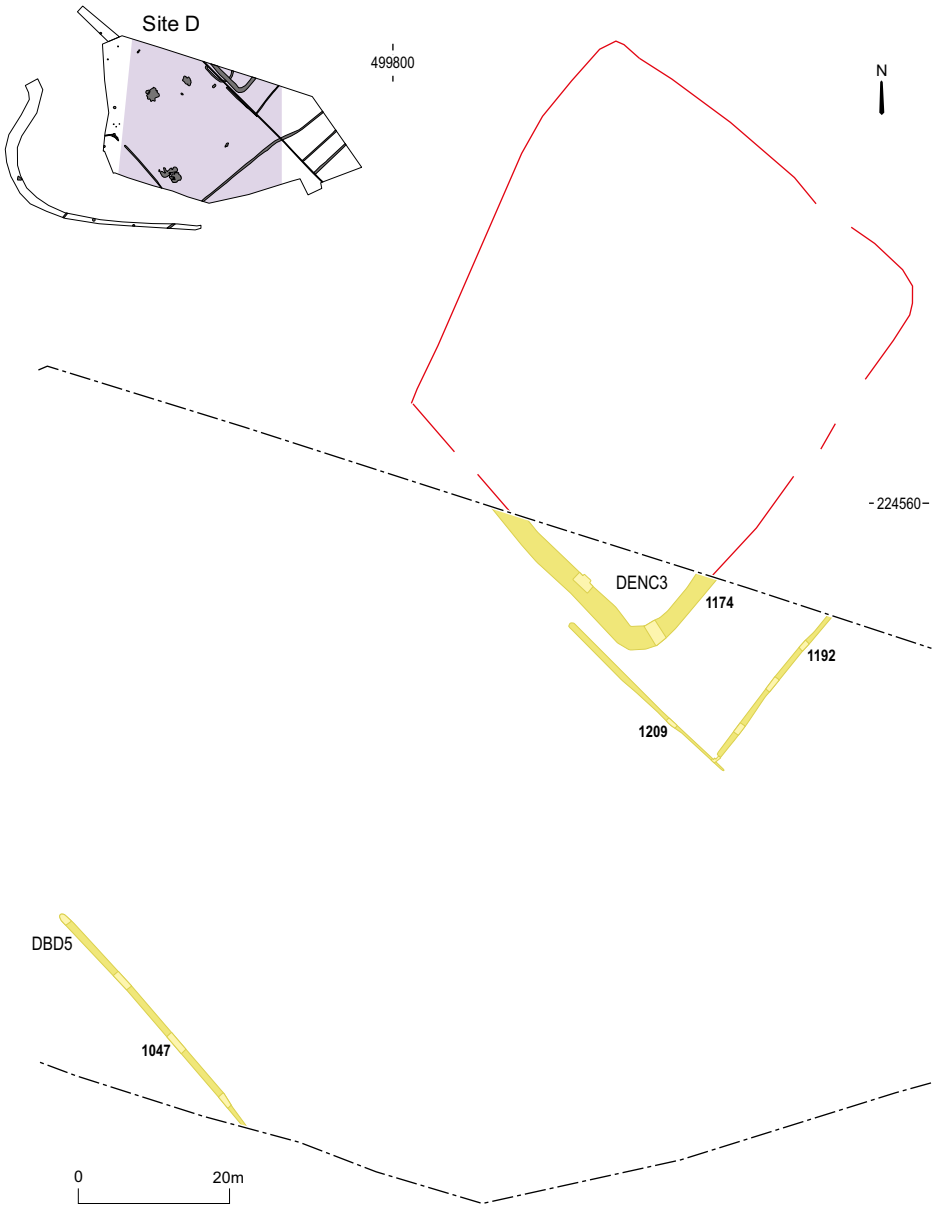


Fig 3.29 Later-middle Iron Age features, peripheral to settlement, Site D

east to south-west, and *c.*47–53m wide. The rounded southern corner of the enclosure was exposed within the area of Site D, as ditch D[1174]. The ditch was 2.70–3.00m wide and at least 1.30m deep although it varied in profile from moderately sloping with a rounded base to a stepped profile where there was a significant break of slope and a narrow channel along the base (Fig 3.30). Fill constituents were generally light-mid orange-brown clay silt comprising gradual accumulations with few finds.

BOUNDARY DITCHES AT SITE D

Directly to the south-east of DENC3 there were two ditches, D[1192] and D[1209], that mirrored the corner of the enclosure (Fig 3.29). One ditch was aligned parallel to the south-west side of the enclosure, 2.0m away from it, whilst the other ditch was 12m away to the south-east and parallel to that side. The two ditches were of similar size, 0.30–0.65m wide and 0.16–0.26m deep, with moderate sloping sides and rounded bases (Fig 3.30). They shared a common fill, which was mainly orange brown silty clay natural silting.

Approximately 75m to the south-west there was another ditch, DBD5, aligned on the same axis as the main settlement at Site G, enclosure DENC3 and other sinuous narrow ditches. This stretch of ditch D[1047], 40m long, had a terminal at the north-west end and was V-shaped, 0.85–1.28m wide along its route with a generally rounded profile (Fig 3.30). The depth remained consistent at *c.*0.43m, along its entire length and six pottery sherds of broadly Iron Age date were found.

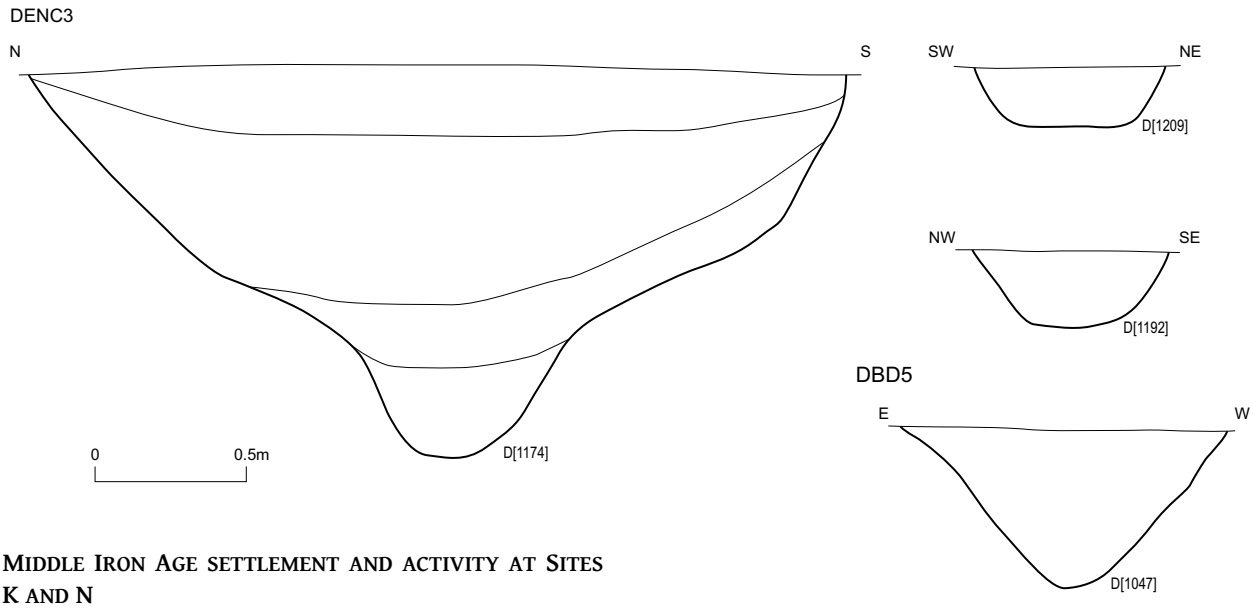


Fig 3.30 Later-middle Iron Age ditches, Site D

MIDDLE IRON AGE SETTLEMENT AND ACTIVITY AT SITES K AND N

The middle to late Iron Age settlement activity at Sites K and N lay at the eastern end of the scheme, at the top of the Ouzel Brook valley, and minor elements were examined where they lay within the road scheme by targeted and general watching brief. (Fig 3.1). An enclosure was identified during preliminary geophysical surveys lying outside the present scheme to the south (Fig 3.31; Simmonds and Fisher 2008, figs 15-16). Boundary ditches extended away from the enclosure and across the road corridor to its north-east and north-west. In close proximity to these were two isolated storage pits and a pit cluster similar to those seen at Sites D and G.

Features at Site K were generally dated to the earlier-middle to later-middle Iron Age, with a number of other undated pits and postholes that lay close by perhaps also related to these periods but were undated. Two features to the south were dated to the late Iron Age

The relationship between the unexcavated enclosure and the excavated features at Site K is largely unknown. A number of ditches were recorded during observation of the farm access road to the south of Site K and a further few widely spaced ditches was seen to cross the diverted utility route of Site N, to the south-east of the farm. It is probable that these ditches formed part of the Iron Age settlement landscape as interconnecting boundaries.

The settlement lay upon a low natural plateau, slightly below the hilltop to the north and at the head of the Ouzel Brook valley, with well drained calcareous coarse and fine loamy soils overlying chalk (LAT 1983, 511e). This landscape was situated between the valley of the River Flit to the north, the headwaters for the River Lee to the south-east and the Ouzel Brook to the west. The site was fairly level and sloped very gradually towards the south from *c.*130–132m aOD within the scheme corridor. In the farm access road it was at 131m aOD, falling to 126m aOD at the eastern end.

EARLIER-MIDDLE IRON AGE STORAGE PITS AND PIT CLUSTER

An intercutting pit group and two storage pits were located within an area of *c.*30m by 15m. These lay to the north-east of the unexcavated enclosure identified during the geophysical survey (Fig 3.32).

STORAGE PITS

Within an area of scattered pits were two large storage pits, K[17] and K[95], which dated from the earlier-middle Iron Age. These pits lay *c.*12m apart towards the west of Site K surrounded by a number of undated pits and postholes (discussed further below). Pits K[17] and K[95] both contained moderate to large quantities of domestic waste.

The two pits were cut into the natural chalky clay and were circular in plan. From the ground surface the pits were initially cut vertically before flaring out towards the base with an undercutting at 30°–45º, producing a

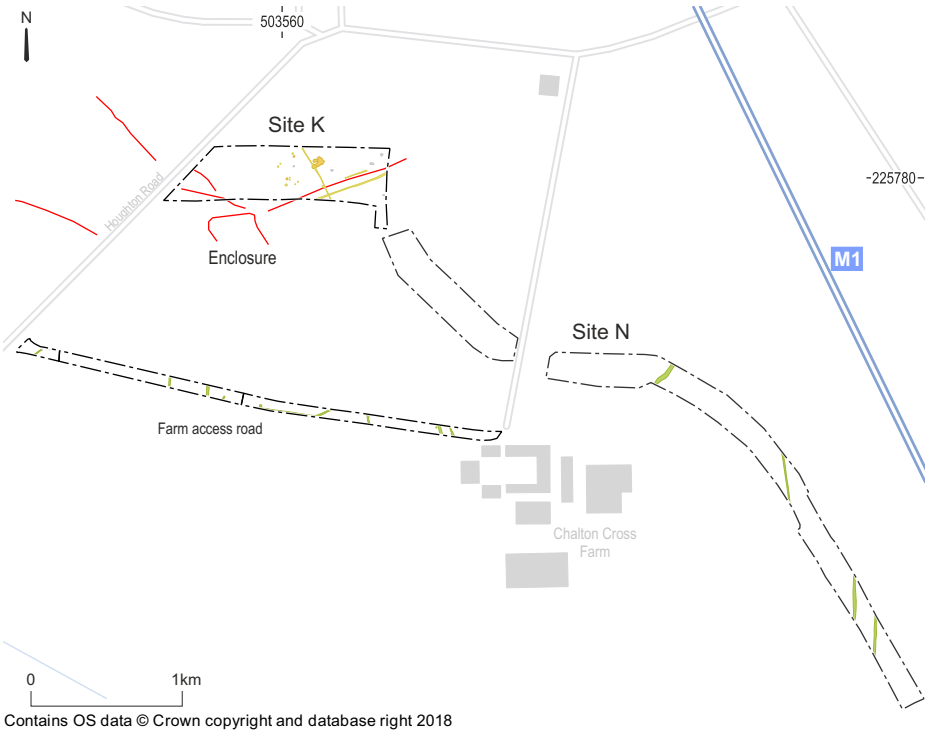


Fig 3.31 Layout of Iron Age features, Sites K and N

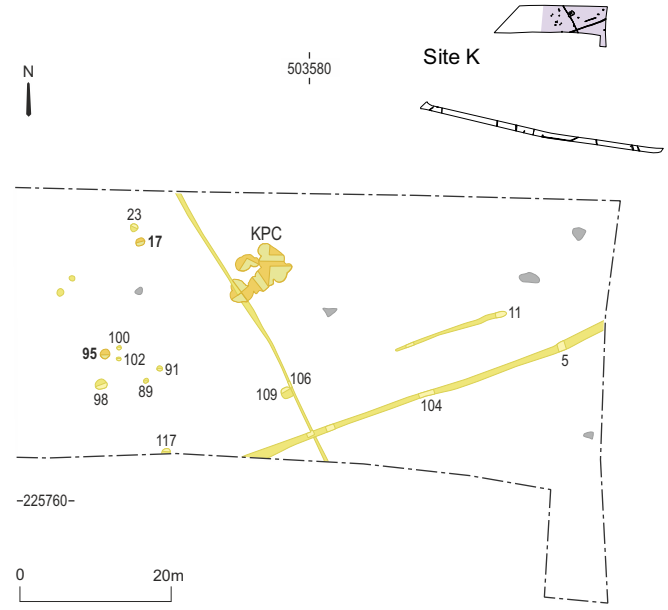


Fig 3.32 Iron Age features to the north of the enclosure site, Site K

bulged profile (Fig 3.33). Pit K[95] was 0.92m in diameter at the rim and 0.93m deep with an internal diameter of 1.23m, whilst pit K[17] was slightly larger with a rim diameter of 1.16m, widening to 1.52m at the base, and with a depth of 0.83m. The pits contained deposits of dumped domestic waste interspersed with layers of sterile silty clay loam.

Pit K[17] had an initial fill of redeposited natural chalky clay, <0.15m deep, with a single sherd of Iron Age pottery and a small amount of animal bone. Overlying this was friable dark grey-brown silty clay, with frequent charcoal, <0.15m thick. Within the fill were 32 sherds (665g) of earlier-middle Iron Age pottery. The assemblage included two shouldered jars, one with shallow fingertip impressions, and another shouldered jar with an upright rounded rim. It also contained an unusual vessel in a grey fabric, decorated with an applied cordon. A moderate amount of animal bone was also retrieved from the fill. In addition, a biconical ceramic bead was recovered. This was fired to a dull brown/red hue and was 21mm in diameter. Occasional cereals, chaff and weed seeds were present amongst a high density of charcoal fragments and numerous abraded snail shells suggesting that the pit was situated within an area of open grassland (Fryer 2016, 180). Cherry/blackthorn charcoal from the fill produced a radiocarbon date 360–170 cal BC (95% confidence, 2180±30BP, Beta–458339). This fill was overlaid by a sterile mid-brown silty clay and the top fill comprised mid–dark grey-brown silty clay containing 22 sherds (200g) of broadly dated Iron Age pottery, a small quantity of animal bone, fired clay and occasional seeds similar to those in the lower fill.

Pit K[95] had mid-brown-grey silty clay at the base that was tipped into the pit from the west, 0.42m thick. There were 33 sherds (810g) of earlier-middle Iron Age pottery including parts of three vessels; a slack-shouldered vessel with deep fingertip impressions, a jar with a weak shoulder and elongated neck, and a bowl in a fine fabric with a pronounced shoulder and a deep rounded neck. Although the animal bone assemblage was generally small, it contained a fragmentary piece of antler that had been worked into a weaving comb with indistinct traces of decoration. The light orange-brown silty clay above this contained 17 pottery sherds (195g) of broadly Iron Age date and a small amount of animal bone. A notable quantity of fired clay was recovered, several fragments with wattle impressions. Radiocarbon analysis of a hazelnut shell recovered from the middle fill produced

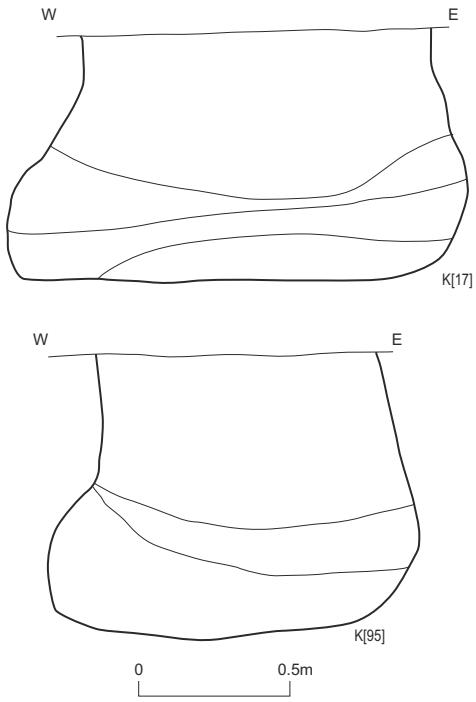


Fig 3.33 Earlier-middle Iron Age storage pits, Site K

a date of 200–170 cal BC (95% confidence, 2150±30BP, Beta–446416). The top of the pit was filled by firm dark brown-grey silty clay, 0.57m thick, from which eight sherds (35g) of broadly Iron Age pottery was recovered with moderate animal bone. The plant macrofossil assemblages from the pit fills produced a diverse group of segetal weeds and grassland herbs, but many varieties were represented only by single specimens. Stinking mayweed seeds were noted; a plant most commonly found on damp clay and suggesting early cultivation of heavier soils. Wheat grains were present and included spelt wheat glume bases.

PIT CLUSTER KPC

An irregular pit cluster lay 15–20m to the east of the storage pits (Fig 3.32, 3.34; Table 3.18). There were at least 23 intercutting pits of various sizes over a 8.5m by 7.75m area as well as a small detached group of three or four intercutting pits adjacent to the west side of the main cluster. The south-west side of the cluster was cut by later-middle Iron Age boundary ditch K[48].

At least half of the pits were 1.00–1.80m in diameter, with the six largest spanning 2.00–2.60m and the four smallest pits at 0.30–0.90m wide. A possible posthole, K[67], had near vertical sides and U-shape profile, 0.30–0.35m diameter. Fourteen pits were 0.20–0.40m deep, the five deepest pits were 0.48–0.58m deep, corresponding with the largest diameters. Most of the pits had 30–60º sloping sides. A few very shallow pits were 0.12–0.18m wide and had the gentlest 20–30º sloping sides. Most of the pits had broad, flat to slightly rounded bases, although a few displayed more distinct rounded bases. One pit K[47] differed slightly; it was circular in plan, 1.50m in diameter, and had a U-shaped profile 0.39m deep with one slightly undercutting side extending to a flat base. It may be significant that this profile was similar to the shape and size of storage pits K[17] and K[95].

Roughly half of the pits had an homogeneous fill with the remainder presenting mixed fills. The lower and primary fills were consistently light to mid grey-brown silty clay to pale brown chalky clay, with frequent rounded to sub-angular chalk fragments. The homogeneous and uppermost fills were commonly mid–dark grey-brown silty clay. Few seeds were present and charcoal was scant. Only four pits produced small amounts of pottery and animal bone. Four diagnostic pottery sherds from pit K[51] came from long-necked jars, which suggest a date in the earlier-middle Iron Age and was confirmed by a radiocarbon date of 360–170 cal BC (95% confidence, 2180±30BP, Beta–446415) from cereal grains in the same fill. Fragments of burnt clay or daub were also present. These finds will be discussed further below.

The pits of the pit cluster had infilled to form a shallow hollow which extended across the group. The hollow infilled over time by natural silting action, which formed a broad spread of a dark brown silty-clay, 0.29m deep.

LATER-MIDDLE OR LATE IRON AGE BOUNDARY DITCHES

Within the main scheme area of Site K, there were three perpendicular ditches that corresponded with linear features identified in the geophysical survey (Figs 3.31 and 3.32; Simmonds and Fisher 2008, figs 15-16). These are likely to be associated with the pit digging discussed above and also with an enclosure identified during the geophysical survey which lay outside the scheme to the south. The ditches identified within the farm access track to the south, and also during utility service diversions (Site N) may also connect into a network of boundaries of this period.

DITCHES WITHIN SCHEME CORRIDOR AT SITE K

Ditch K[104] was the earliest of the ditches in this area. It lay on a north-east alignment, traversing the site for *c.*38m before passing outside of the scheme area. The ditch was 0.93m wide at its north-east extent, narrowing to nearly half its initial width towards the south-west, and reduced in depth from 0.21m to 0.09m. The profile was shallow with a gently sloping rounded profile and flat base. The north-east extent of the ditch contained light–mid grey-brown sandy clay becoming mid red-brown silty clay towards the south-west. No finds were present in the ditch fill. Lying parallel *c.*6m to the north-west was a shallow gully K[11], 15m long, with small rounded terminals. The gully slot was 0.34m wide and 0.09–0.12m deep.

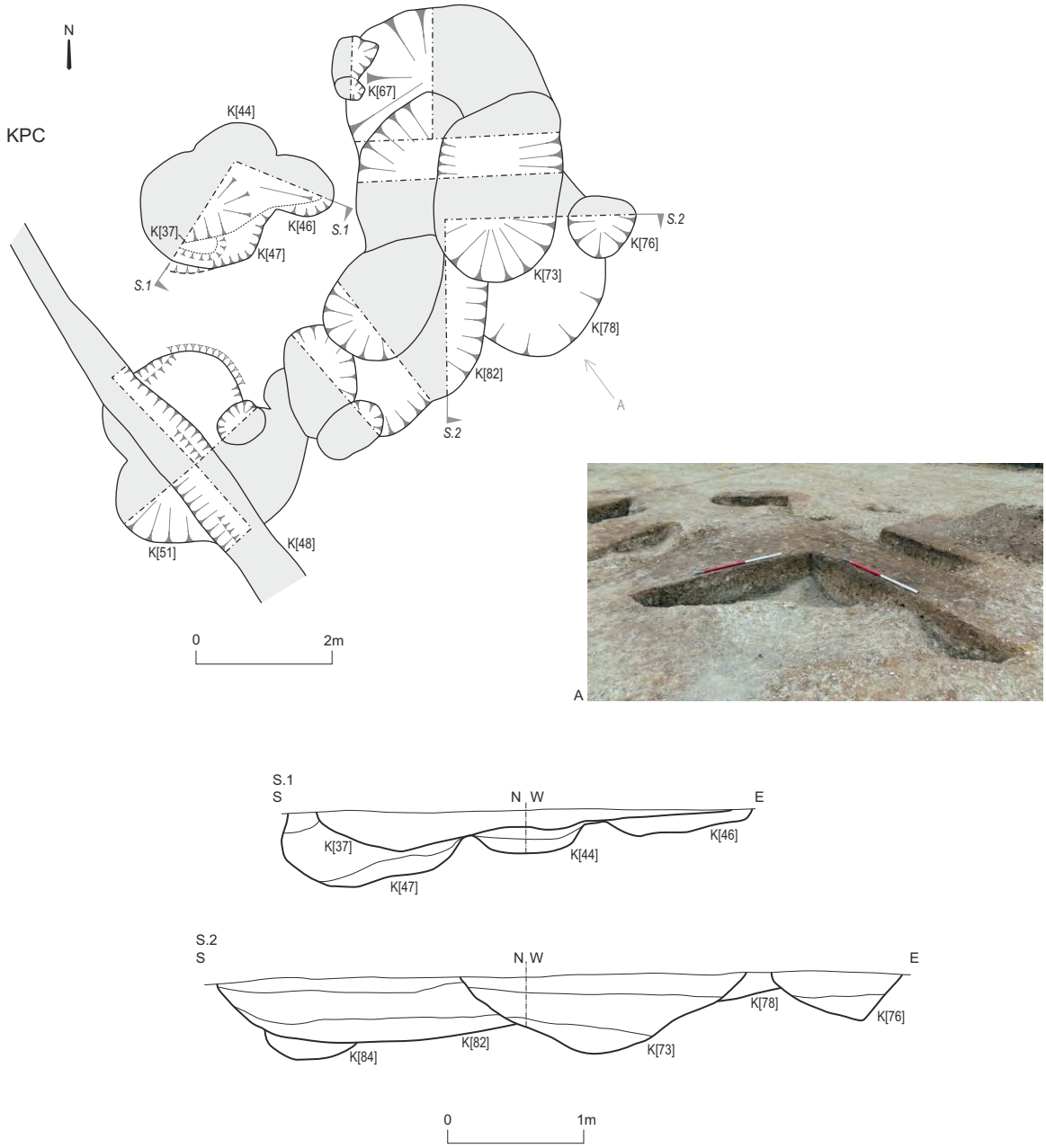


Fig 3.34 Earlier-middle Iron Age pit cluster KPC

Ditch K[106] lay perpendicular and cut squarely across ditch K[104]. Ditch K[106] was recorded for *c.*41m across the site on a south-east by north-west alignment. At the north-west edge of site it was 0.60m wide and 0.44m deep, narrowing to 0.30m wide in the south-east, where it was 0.12m deep. The ditch had steep sloping sides and rounded base, filled with mid grey-brown silty clay. A sherd of Iron Age pottery was recovered.

DITCHES WITHIN THE FARM ACCESS ROAD AT SITE K

The general watching brief investigated features along a narrow stretch of farm access track between Houghton Road and Chalton Cross Farm, *c.*200m long (Fig 3.35). At least 11 linear or curvilinear ditches and three smaller pits or postholes were found within the access road corridor. Although mostly undated, two ditches contained Iron Age pottery, one specifically of a late Iron Age date. The majority of features could not be associated with each other.

At the western end of the access road corridor two ditches converged, K[506] and K[517], but terminated before joining; this may be a possible entrance, presumably part of an enclosure/field system. The ditches lay north-east to south-west and terminated 5m apart. Close to one terminal was a pit or large posthole and other possible pits lay at the edges of excavation. Pit digging around enclosure entranceways is a reasonably common phenomenon in this period. Feature K[514]

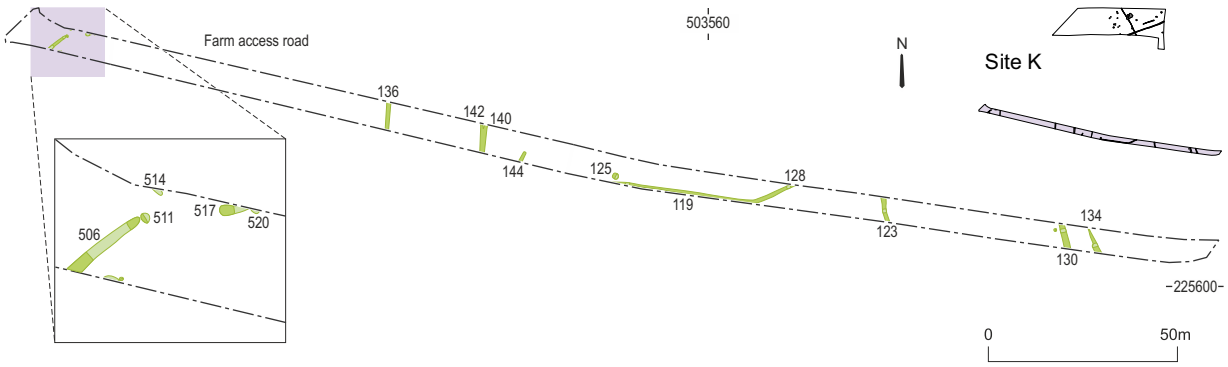


Fig 3.35 Iron Age features to the south of the enclosure site, Site K

may have been a pit, or the terminal of a ditch extending away to the north-west and at the centre of a junction between three ditches. These ditches were 0.44–0.90m wide and 0.06–0.25m deep. They contained light chalky clay natural silting at the base and darker grey silty clay above. The pits/postholes were 0.56–0.64m in diameter and 0.17–0.19m deep with similarly differentiated fills.

Along the remainder of the access road there were up to eight ditches and one pit. Seven of the ditches were aligned roughly north–south, but not equally spaced apart and only ditch K[140] was recut. Within the trench ditch K[144] terminated and ditch K[119] changed direction. It is likely that all of these ditches dated to the Iron Age, but the sequence and sub-phasing was not apparent as only two ditches contained pottery of the Iron Age, and there was no intercutting to indicate the sequence. The similarity of alignment between all the ditches may suggest field boundaries forming a network of enclosures. However, the geophysical survey did not provide any indications of a regular distribution or grid pattern in this area or to the north.

The ditches aligned north–south varied in size, being between 0.50–1.40m wide and 0.13–0.62m deep. Mostly were broad and tended to be rounded with a flat base, two ditches were V-shaped. The sides ranged from gentle (30º) to steep (60º), and they largely had fills comprising grey mid brown to dark grey-brown silty clay with frequent small sub-rounded pebbles. Ditch K[144] produced 16 sherds (170g) of broadly Iron Age pottery in a single dump, but the same fill produced only sparse plant macrofossils. Ditch K[123] contained five sherds (30g) of pottery, of which one sherd had grog tempered fabric, typical of the late Iron Age.

One ditch changed course within the access road route. K[119] lay half way along the access road strip and was aligned north-west by south-east for 40m before it turned towards the north-east. The ditch was 0.52–0.69m wide and 0.10–0.25m deep, but was otherwise similar to the other ditches in this area. A large undated pit, K[125], was located adjacent to its west extent, which was sub-circular and 1.36m wide by 0.67m deep with a steep sides and a small uneven flat base. The fill was mid–dark grey-brown silty clay with no finds.

UNDATED PITS AND POSTHOLES

Within the main area of Site K, six pits and two postholes were scattered in the vicinity of the two storage pits, K[17] and K95]. The undated pits were situated some distance to the west of the earlier-middle Iron Age pit cluster, KPC, and the ditches (Fig 3.32). Two isolated pits, K[109] and KI[117], lay between 10-15m to the south of the cluster KPC. Pit K[109] was cut by ditch K[106], which was the only stratigraphic relationship visible; however, no features of other periods were uncovered in Sites K or N and these features are therefore thought likely to be Iron Age in date.

Six pits; K[23], K[98], K[109] and K[117] were all small to medium-sized and sub-circular in plan, 0.50–1.35m in diameter and shallow at 0.09–0.26m deep. They had moderately steep sloping rounded profiles and flat or slightly rounded bases. The pits had one or two fill deposits varying from light yellow to mid brown chalky silty clay.

Postholes K[89] and K[91] were *c*.2m apart and lay 5–6m south-east of storage pit K[95]. They were both sub-circular with U-shaped profiles, 0.43–0.56m in diameter and <0.20m deep. The fills were similar; mid–dark grey-brown silty clay, with moderate small sub-rounded chalk chips/flecks and stones <0.05m in size that may have acted as stone post packing.

At least 14 shallow amorphous and undulating features were investigated that were either vegetation disturbances or variations in the natural substrate. They were 0.50–2.50m across and often displayed uneven or undercutting profiles, 0.08–0.38m deep. Fills were generally consistent dark brown sandy clay and chalk chips/fragments, although one had a dark red-brown fill, which may represent burning.

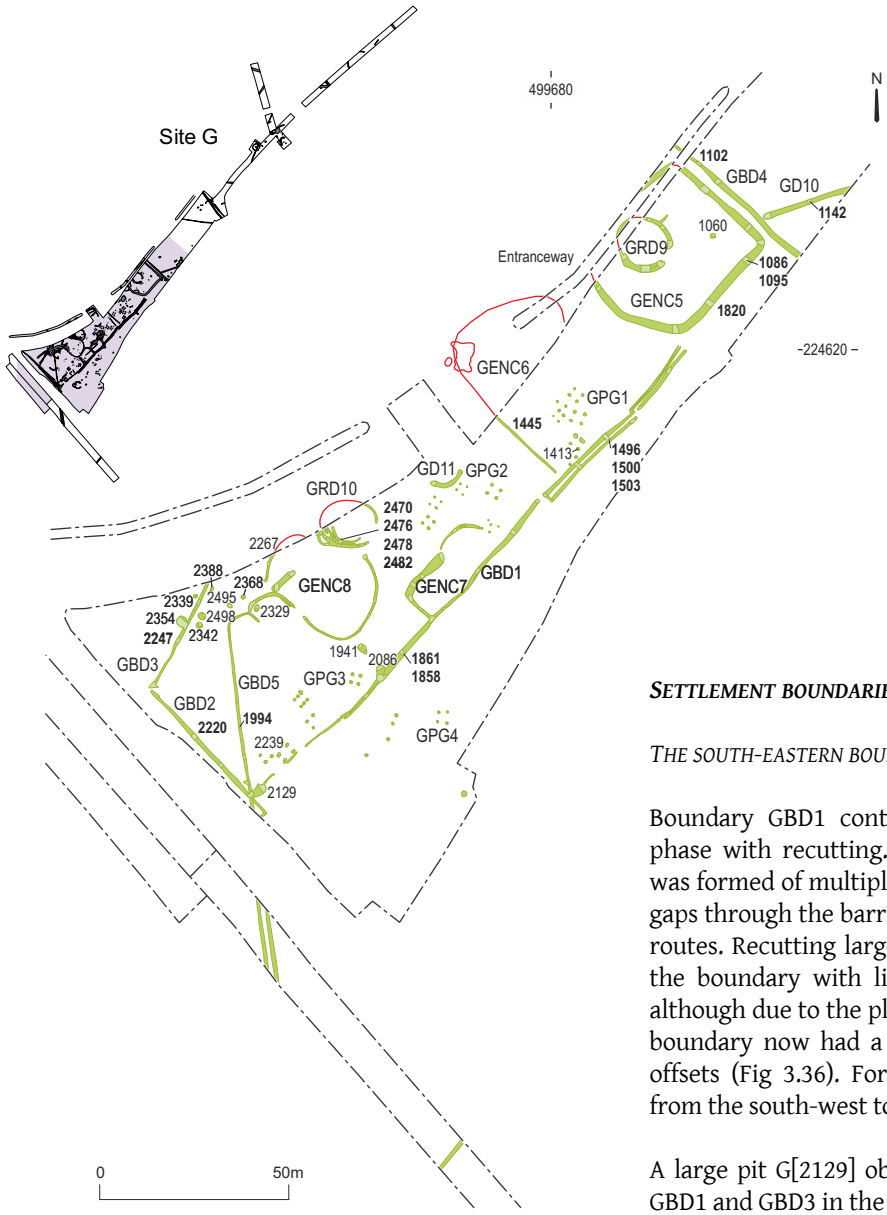


Fig 3.36 Layout of late Iron Age settlement, 1st century BC, Site G

LATE IRON AGE SETTLEMENT, 1ST CENTURY BC, AT SITE G, D AND M

The late Iron Age saw the Site G settlement extended slightly to the north-east, replacing earlier ring ditches and fully enclosing the north-east extent. The main settlement boundary ditches were recut in this phase along the same alignments with minor alterations to entrances and at the south-west end. The domestic activity of the settlement during this period was consolidated within a single large sub-rectangular enclosure, GENC5, with one internal roundhouse, GRD9, at the north end of the site; the former domestic areas to the south east were repurposed (Fig 3.36). Much of the internal arrangement of the settlement was reorganised, and the later-middle Iron Age enclosures and roundhouses went out of use. Non-domestic and probable agricultural features now took up almost two-thirds of the excavated settlement area, focused upon a single roundhouse GRD10, which may not have been domestic.

Activity at Sites D and M was limited in this period, but Site D contained ditches that probably belonged to field systems extending away from Site G. Possible drainage ditches at Site M may have served to carry excess water downslope towards the brook.

SETTLEMENT BOUNDARIES

THE SOUTH-EASTERN BOUNDARY, GBD1

Boundary GBD1 continued to be maintained in this phase with recutting. As before the overall boundary was formed of multiple different segments with defined gaps through the barrier probably functioning as access routes. Recutting largely followed the original route of the boundary with little migration along the extent, although due to the placement of the recuts, the overall boundary now had a straighter alignment with fewer offsets (Fig 3.36). For ease the boundary is described from the south-west to north-eastwards, as before.

A large pit G[2129] obscured the junction between the GBD1 and GBD3 in the south-west corner of the site; this pit will be discussed further below. However, it seems that the boundary GDB1 butted up against GBD3 and did not extend further to the south-west. From this point, the ditch was between 4.5m-5m wide and 0.34m deep, filled with a dark brown clayey silt, which appeared to be natural silting containing no finds. From the south-west corner, the ditch extended north-east, defining two entranceways of 4.5m wide and 2.5m wide. The boundary continued unbroken for another 11.8m, before terminating up against a narrow gap between 0.20-0.90m wide. After this break the original U-shaped cut G[1861], which was 0.5m wide by <0.39m deep, was edged to the north by the more significant recut G[1858], which had a V-shaped profile, 0.90m wide by 1.0m deep. This later intervention contained late Iron Age pottery (21 sherds, 150g). The recut lay parallel with the original ditch for *c.*35m (Fig 3.37).

Where it formed the south-east side of enclosure GENC7, the boundary now appeared as a single, unbroken

ditch, where the recut had truncated away any earlier iterations. The ditch was of moderate size, 1.45–1.82m wide by 0.63–0.67m deep, and was filled with light mottled grey-brown clay silt towards the base and mid–dark orange-brown clay silt above that seemed to be from gradual accumulations. The fill produced 66 pottery sherds (905g) that indicated considerable residual elements from the later-middle Iron Age into the 1st century BC with no particular concentration along the enclosure side or further away. The boundary extended alongside the enclosure for a further 42m before it terminated at another break in the boundary. This gap, 2m wide, retained an entranceway in the same location as the previous phase.

From this point north-eastwards the boundary was again defined by two ditches that lay parallel for 32m and it is uncertain if these were contemporary or sequential, as both produced late Iron Age pottery (Figs 3.36 and 3.37). The ditch on the north-west side was larger, 0.68–1.4m wide by 0.26–0.70m deep, and followed the main alignment of the boundary. The ditch parallel to the south-east was 0.75–0.90m wide by 0.30–0.34m deep and offset by *c.*1.0m, which may suggest a bank or hedge could have run between the two ditches. The ditches again both terminated in the same location that the previous phase later-middle Iron Age boundary had done, indicating that the 1.3m wide entranceway was retained. At some point, this access

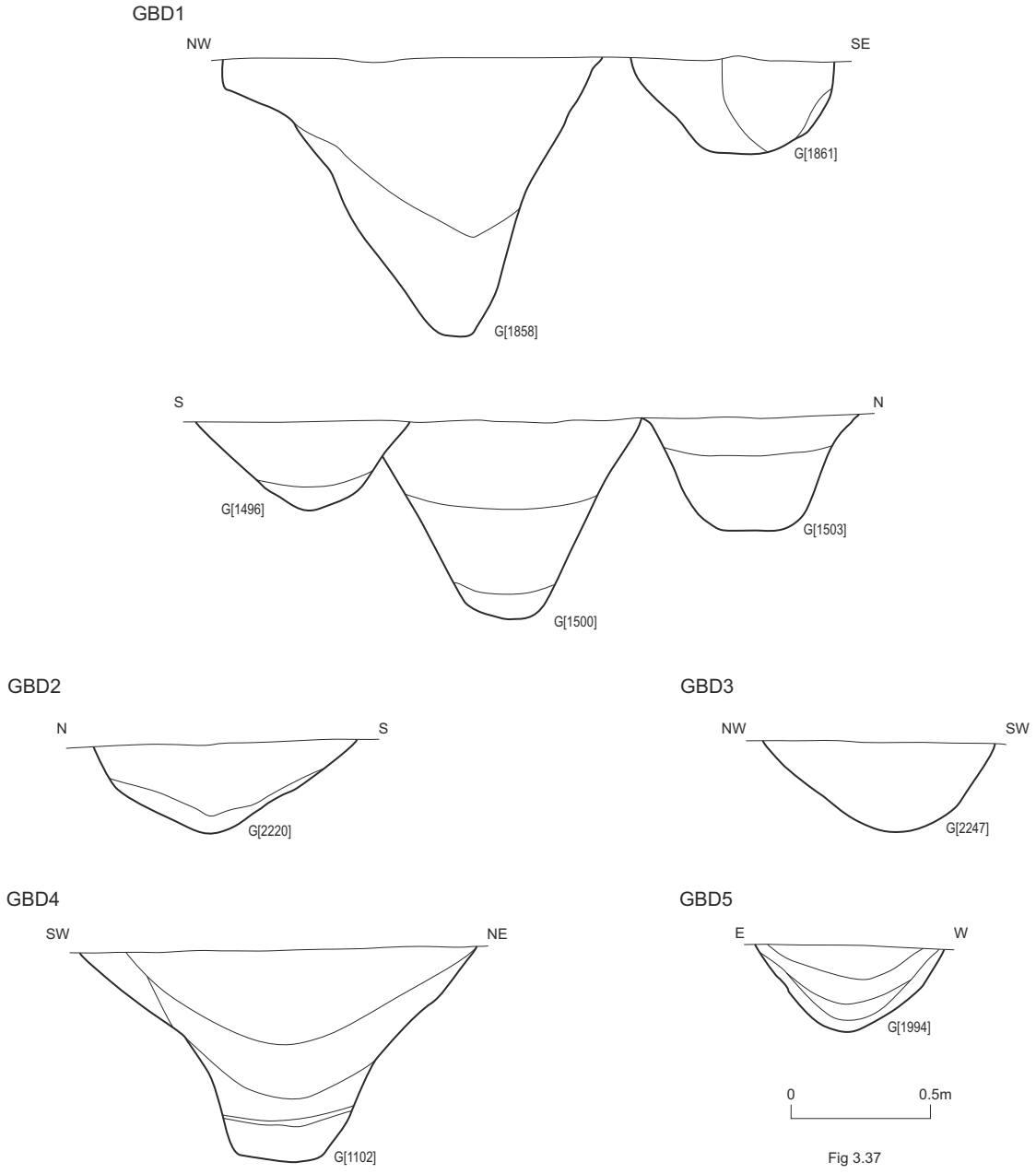


Fig 3.37 Selected profiles through late Iron Age boundary ditches, Site G

through the boundary became closed off by a pair of narrow parallel gullies. A single ditch, 25m long, 0.50m wide and 0.20m deep, completed the boundary route to the corner of enclosure GENC5. The two later gullies which had closed the entranceway, followed parallel on the same alignment for 22m before gradually fading out to soil marks.

The south-western boundary, GBD2

The south-west boundary ditch, GBD2, was recut in the 1st century BC. The ditch extended south-east past the junction with boundary GBD1 before turning to the south-west at a right angle and continuing beyond the excavated area (Fig 3.36). The main alignment was 45m long, terminating to the north-west. The ditch had a broad V-shape, 0.94m wide by 0.32m deep, with moderately steep sides and a rounded profile (Fig 3.37). The fill was comprised of weathering and silting deposits of light grey clay natural overlain by mid brown silty clay accumulations above and darker grey-brown abandonment deposits at the surface. Few finds were recovered.

The north-western boundary, GBD3

A short length of ditch, GBD3, is thought to form part of the north-western settlement boundary as very few contemporary features lay to the north of it (Fig 3.36). The first phase of this boundary was a ditch which extended perpendicular from GBD2 after a 2.5m gap for 15m. This short partition was 0.55m wide by 0.28m deep with gentle sloping sides and a flat base, filled by accumulations of light brown clay. This was soon replaced and the boundary was rotated slightly and extended north-east from the end of GBD2. The narrow gap, *c.*2.0m wide, between ditches GBD2 and GBD3 was retained, presumably forming a narrow entrance into the settlement. The remainder of GBD3 was 31m long and cut across the top of almost all other features; it was 0.83m wide by 0.33m deep, and had similar fills to boundary GBD2 (Fig 3.37).

The north-eastern boundary, GBD4

This boundary marked the furthest north-east extent of enclosed settlement and lay immediately parallel to the side of enclosure GENC5 (Fig 3.36) The ditch was aligned north-west to south-east and was visible in the geophysical survey data as a continuous boundary that connected with other possible settlement features or enclosures to the east (Figs 3.4-3.5; Simmonds and Fisher 2008, figs 3-4). The ditch was largely undated with few late Iron Age sherds, and had a fairly regular V-shaped profile <1.43m wide and 0.76m deep. The sides sloped inwards sharply and then dropped steeply into a narrow channel with a flat base (Fig 3.37). The basal fills were light chalky grey clay with darker silty clay natural silting that gradually accumulated. The basal fill of the ditch appeared very likely to have carried water and the upper mid–dark orange-brown and grey silty clay was probably cast into the ditch before the end of the 1st century BC.

Boundary GBD5

This seemingly long boundary ditch, GBD5, was traced for *c.*100m and continued to the south beyond the excavation areas (Fig 3.36). The ditch was not a settlement boundary but fell late in the sequence as it cut all features except the last phase of boundary GBD2. The ditch had a north–south alignment, noticeably at odds with the rest of the settlement. The southern extent may have connected with field systems to the south, while the portion within the settlement added a partition within the area. At its northern end the ditch curved eastwards and formed a short hook, 8m long by 2m wide, coincidental with the location of later-middle Iron Age ring ditch, GRD8. The ditch was 0.5–1.07m wide and 0.23–0.34m deep and had a generally rounded profile (Fig 3.37). Light chalky grey natural silting filled the sides and base with mid grey-brown silty clay immediately above it that was consistent along the ditch, followed by further light chalky brown natural silting and grey abandonment deposits above. Seven late Iron Age pottery sherds (275g) were found along its route and in the targeted watching brief transects to the south of the settlement there was an adjacent parallel ditch.

A short curvilinear ditch, with a terminal <1.0m from the north-eastern side of GBD5, curved to the south-east for *c.*15m and joined enclosure GENC8 by partially recutting a portion of the ditch. This minor ditch completed the internal partition in the southern area of the settlement. The profile was generally rounded with steep sides, 0.65m wide by 0.40m deep, and had light yellow-brown clay natural silting at the base with darker grey-brown silty clay backfill above it that produced late Iron Age pottery (18 sherds, 275g).

Ring ditches

Ring ditch GRD9 and nearby pits

A ring ditch, probably for a roundhouse, and a sparse scatter of pits and postholes lay at the north-east end of the site within enclosure GENC5 (Fig 3.36). The majority of ring ditch GRD9 was exposed on the north-western edge of the scheme at Site G. There were two ditch cuts, the latter recut offset slightly to the south-west. The original ring ditch enclosed a space *c.*11m in diameter with an entrance, *c.*2.5m wide, facing south-east. The V-shaped ditch varied in size, 0.53–0.70m wide by 0.20–0.52m deep, with moderately steep sloping sides and a rounded base (Fig 3.39). The fill comprised light brown

Fig 3.38 Ring ditch GRD10 under investigation, looking south, Site G

and mid grey-brown silty clay around much of the circuit except towards the west where the fill was dark grey-brown, nearly black, silty clay. An assemblage of nineteen pottery sherds (125g) was largely late Iron Age in date with some residual early Iron Age pieces. The recut was proportional with an entrance, *c.*3.5m wide, at the same location as the original. The recut was V-shaped, 0.50–0.78m wide by 0.28–0.45m deep, with steep sloping sides and a rounded base. The fills were similar, although more distinctly differentiated indicating the darker deposits as periodic dumps and final backfill episodes. Largely late Iron Age pottery (103 sherds, 1,040g) was recovered.

There was a scatter of ten pits and six postholes south-east and north-east of GRD9, but most of these are undated (Fig 3.36). Only pit G[1060] had domestic waste that was contemporary with both the enclosure and ring ditch.

Pit G[1060], 10m to the east of GRD9, 1.45m wide by 0.35m deep, had steep sides and a flat base. The basal fill was largely redeposited natural with occasional animal bone including some burnt fragments. The upper fill was mid brown-grey silty clay with eight pottery sherds (160g). Since the nine undated pits were closer to GRD9 than to the earlier-middle Iron Age pit cluster, GPC3, they have been included with the roundhouse. Six circular postholes and an unexcavated oval pit lay within *c.*10sqm and in no clear arrangement. The postholes were 0.38–0.49m in diameter and 0.14–0.49m deep, with steep to near vertical sides, flat bases and filled with mid grey silty clay.

RING DITCH GRD10

During the later-middle Iron Age an oval enclosure, GENC3, associated with an adjacent ring ditch and roundhouse, GRD6, were within located within this part of the settlement. By the 1st century BC the ring ditch and probable associated roundhouse had gone out of use, and a series of new ring ditches, GRD10, was established to the north in the the position of the former oval enclosure (Figs 3.36; 3.38). The former enclosure, GENC3, was partially recut on its north side with a single large ditch and the southern side had at least two recuts. The south-east facing entrance was 5.3m wide and the internal area was *c.*11m in diameter. Within the perimeter and roughly concentric to it, but separated by <0.40m, there were three sequential narrow and shallow gullies for a roundhouse. No internal features were uncovered. The ring ditches were of a similar size, 0.38–0.91m wide and 0.14–0.44m deep (Fig 3.39). Dark grey silty clay fills were fairly undifferentiated and comprised both periodic dumps and abandonment deposits. The ditches and gullies collectively produced four late Iron Age pottery sherds (85g), sparse daub/fired clay, and moderate animal bone that was mostly from the west of the outer ring ditch and included a worked bone splinter awl. There were a few wheat and wild segetal/grassland seeds, insufficient for domestic hearth waste and it may be that, much like roundhouse GRD6, this structure fulfilled a non-domestic function.

DITCH GD11

There was a fragment of curvilinear ditch, 10m long, <1.20m wide and 0.56m deep, in the middle of the settlement area due east of GRD10. The ditch has steep sloped sides with a sudden break of slope onto a flat base in which the thin basal fill of mid grey clay silt had been followed by a bulk of much darker grey silty clay. Twenty pottery sherds (150g) dated broadly to the Iron Age.

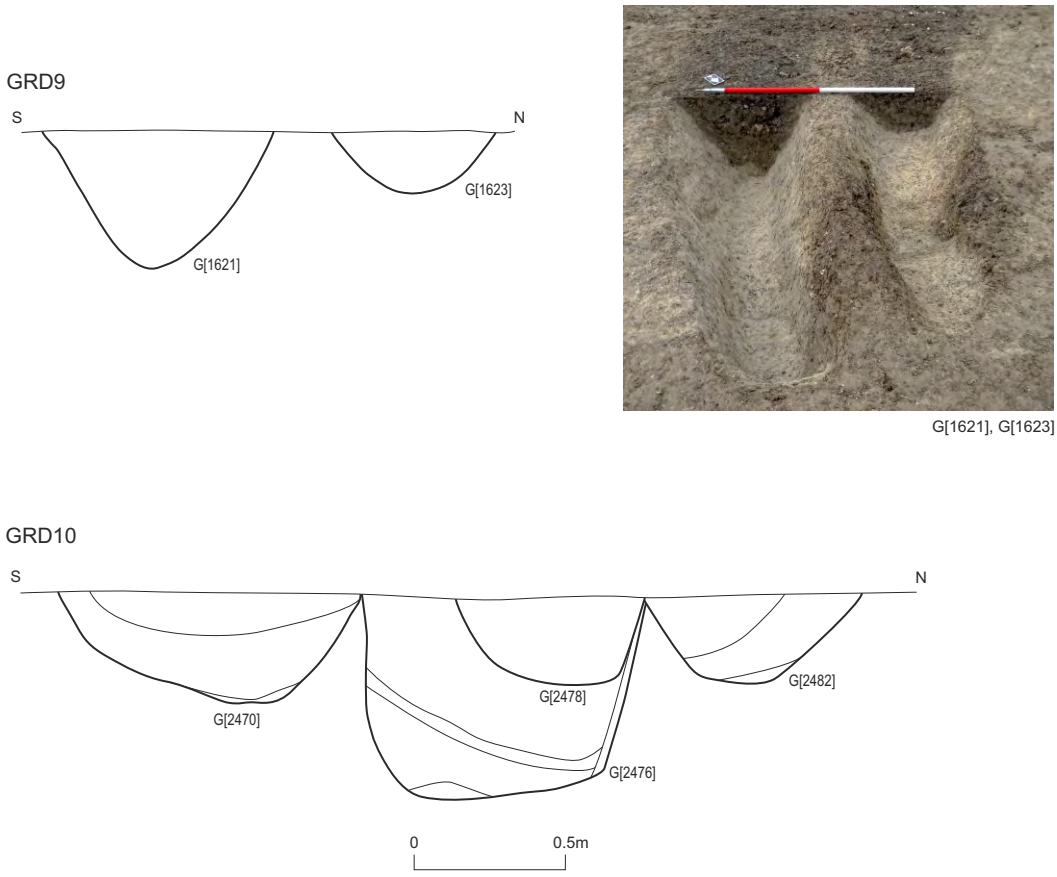


Fig 3.39 Ring ditch sections, GRD9-10, Site G

INTERNAL SETTLEMENT ENCLOSURES

ENCLOSURE GENC5

A large sub-rectangular enclosure, GENC5, was established following demolition of roundhouses GRD4 and GRD5 and extended the area of settlement slightly to the north-east (Fig 3.36). A well-defined ring ditch, GRD9, was situated within the west of the enclosure. The full extent of GENC5 lay beyond the excavation area, but was recorded by geophysical survey (Figs 3.4-3.5; Simmonds and Fisher 2008, figs 3-4). The area of enclosure was *c*.1,165sqm, and both geophysical data and the general watching brief of the roadside drainage ditches indicated there was an entrance at the western corner, over 7m wide. The ditches of the enclosure conformed to the alignment of the existing boundary GBD1.

The north-east side of the enclosure ditch was recut once and the southern and eastern sides were recut twice. Recuts were generally within the limits of the initial ditch and were smaller in size. The original ditch was V-shaped, step-sided and varied between 1.34–4.00m wide by 0.71–1.70m deep. The sides were often eroded at the upper edges and made the base slightly rounded instead of flat (Fig 3.40). The ditch fills varied from light brown chalky clay to dark grey-brown silty clay, often with alternating bands of lighter and dark material suggesting periods of natural silting followed by dry periods of accumulated humus. Along the east and south-east sides these alternating bands were accentuated, perhaps indicating longer wet seasons and short dry summers. Collectively there were relatively few finds; 91 pottery sherds (790g), moderate animal bone and little else. The suggested recuts were <1.35m wide by 0.91m deep and generally followed the same profile. Basal fills tended to follow the same alternate sequence of deposits, but in the latest recut the dark grey-brown silty clay was largely a post-abandonment infill deposit.

ENCLOSURE GENC6

A large enclosure, GENC6, lay largely beyond the limit of the road corridor to the north. Its full extent was mapped by geophysical data (Figs 3.4-3.5; Fig 3.36). The south-western enclosure ditch, G[1445], did extend within the area of excavation south-west of GENC5. This ditch was 0.70m wide and 0.37m deep with a V-shaped profile (Fig 3.40). The basal fill was mid orange-brown silty clay with darker grey silty clay above.

It is possible that it extended as far east as the site boundary GBD1 and far north enough to share a ditch

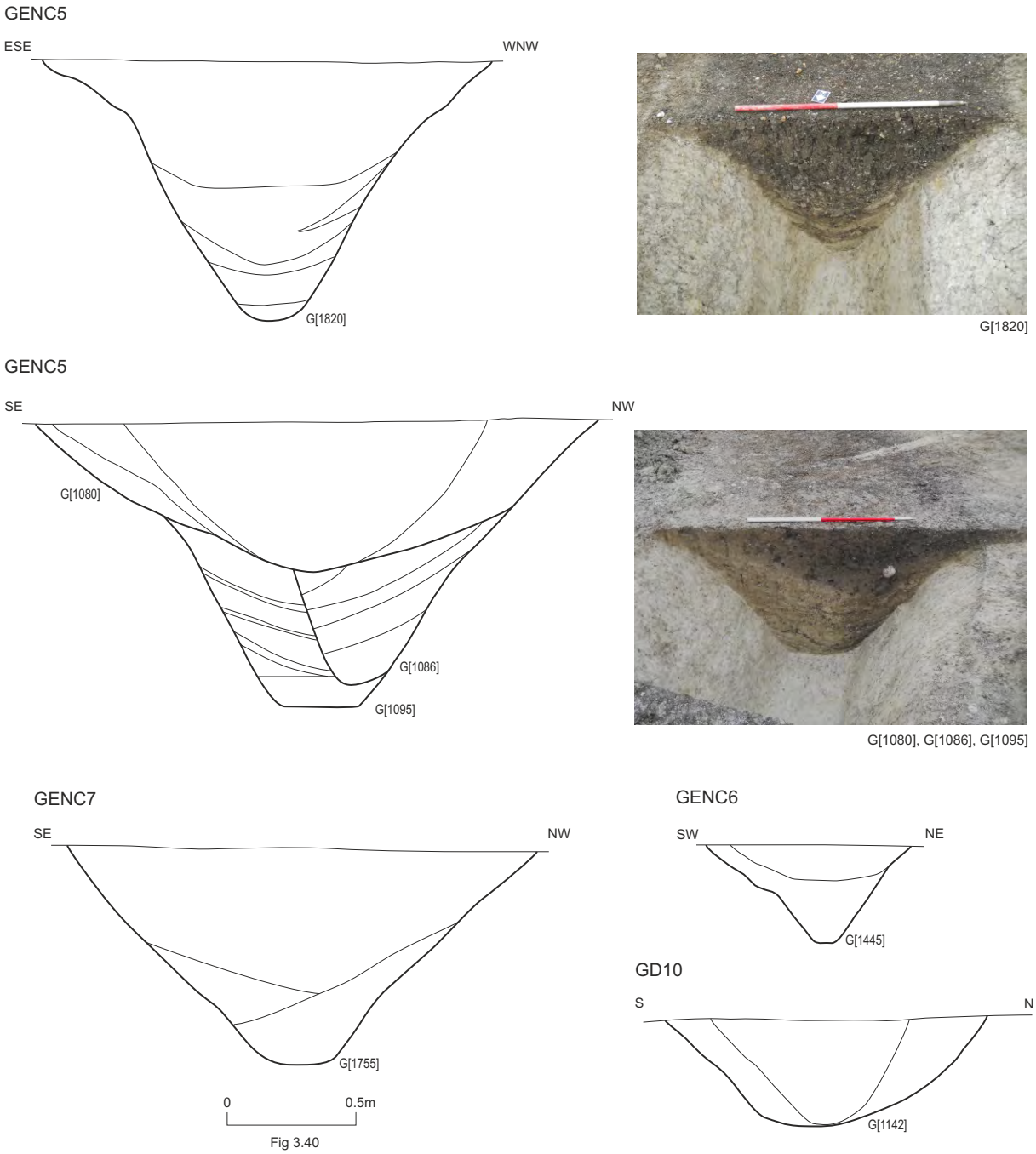


Fig 3.40 Ditch sections of enclosures GENC5–7 and GD10, Site G

with enclosure GENC5. This would have formed an enclosed area of *c.*1,650sqm (0.16ha), including the portion beyond the excavated area. Narrow gaps, *c.*1.0–1.5m wide, may have allowed access into the enclosure through GBD1. Geophysical survey data indicated that another larger entrance, *c.*10m wide, may have been formed from a hooked entrance terminal in the north corner. If the enclosure did cover this entire area then the scatter of pits GPG1 may have been deliberately enclosed within in. This pit group is discussed further later.

ENCLOSURE GENC7

Abutting the south-east boundary was a smaller rectangular enclosure, *c.*25m by *c.*10m (Fig 3.36). The settlement perimeter formed one boundary, where it was recut, and two more sides were formed by a ditch that extended for 8m into the settlement area and then turned north-east, and was 14m long, where it terminated. This ditch was 1.83m wide and 0.84–0.98m deep with a widely splayed V-shaped profile and a narrow flat base (Fig 3.40). Light chalky brown natural

silting was evident on the sides and base that gradually mixed with accumulations of dark brown silty clay with charcoal flecks. Above this was a dark grey-brown silty clay backfill deposit. A large quantity of later-middle and late Iron Age pottery was collectively recovered from these ditches (139 sherds, 1,650g). Occasional earlier-middle Iron Age pottery sherds occurred as residual finds along the settlement boundary.

To the north-east of the ditch terminal was a slightly curved ditch and recut, *c.*15m long, which appeared to have been a late addition to extend the enclosure and that narrowed the north-east entrance from *c.*8m to 6m wide. The ditch and its recut were both *c.*0.48m wide and 0.24m deep. Originally it had a square cut profile, but the recut was slightly more rounded. The fills were largely undifferentiated and were similar to the dark grey-brown silty clay at the top of the main ditch (above). This fill produced a residual early or earlier-middle Iron Age pottery sherd (105g), daub/fired clay pellets including one with a wattle impression, and a large assemblage of animal bone.

Enclosure GENC8

Almost completely exposed within the excavation area was an oval enclosure, GENC8, *c.*30m long by 22m wide, and roughly aligned across the width of the settlement. The perimeter was broken up at various points where it was difficult to distinguish the fill from larger features below. Almost one third of GENC8 comprised a single shallow curvilinear ditch around the south-eastern side, which was <0.57m wide by 0.30m deep, filled by mid orange-brown and grey silty clay. Sixteen late Iron Age pottery sherds (145g) were found together with a complete canine tooth that had been neatly perforated through its centre and a small pointed bone blade. On the south-west side was an entrance 3–4m wide.

Inside the enclosure a short ditch G[2267], 7.6m long, was perpendicular to the south-west side. The ditch was 1.4m wide and <0.60m deep with steeply-sloped V-shaped sides and a flat base. Mottled light chalky orange-brown clay at the base indicated natural silting with a darker grey silty clay loam backfill deposit above it that produced a moderate quantity of late Iron Age pottery (109 sherds, 1,030g).

Ditch GD10

Extending from the north-east corner of the settlement boundary, GBD4, was a ditch that geophysical survey data indicated to be part of an enclosure outside the settlement area and off-set to the east (Figs 3.36 and 3.40). The ditch was proportional to the settlement boundary, GBD4, which survey data suggests may hook around beyond the excavated area to form the rest of the enclosure perimeter for this ditch. The sides were steep and V-shaped with a narrow flat base. The sequence fitted a pattern of gradual natural silting at the base with later backfill or abandonment deposits towards the surface.

Post structures within the settlement

In the middle of the settlement was a concentration of *c.*50 undated postholes in an area *c.*25m by 15m, including several that overlapped with an earlier roundhouse, GRD6 (Fig 3.36). The majority of these postholes are undated, but many are likely to have been late Iron Age, and particularly those that cut earlier ditches. The vast majority did not form coherent structures except where gathered in groups of four. There were at least twelve four-post groups scattered across the settlement, with others in pairs or groups of three; suggesting that there may have been further postholes that did not survive. Three main concentrations lay within the settlement boundary; within enclosure GENC6 (GPG1), in the central area of settlement (GPG2), and to the south of enclosure GENC8 (GPG3). One four-post group, GPG4, and some isolated postholes lay outside the settlement boundary. It may be noteworthy that the four-post structures and pit groups were all situated some distance from both of the ring ditches GRD9 and GRD10, and none of the small enclosures contained any pits or postholes. Only the large enclosure GENC6 enclosed a number of four-post structures, perhaps suggesting that the large enclosure had a different, more agricultural function to the smaller enclosures and ring ditches.

Enclosure GENC6 contained a number of undated pit features, including at least four probable four-post structures (GPG1). The best preserved amongst these was 3.3m by 2.6m in plan and aligned square to the overall settlement. The postholes were each circular in plan and 0.40–0.57m in diameter by 0.19–0.26m deep. The sides of the postholes were steep and the bases flat. Two of the postholes had silting/slumping of the sides and were filled with dark grey-brown silty clay. Another less well preserved four-post structure was slightly off the same alignment. The smaller structure was 2.8m by 2.3m in plan, and individual postholes were each 0.25–0.32m in diameter by 0.07–0.26m deep. In addition other less well preserved postholes indicated at least two further structures of the same type and perhaps as many as six in total where some postholes were lost to medieval furrows. The four-post structures were confined to the south corner of the enclosure and were not evenly spaced or aligned, however, it would have been possible for them to all have been packed together.

The groups within the central area, GPG2, were very convincing and were adjacent at the south-western side of the posthole group, aligned with the main settlement.

Two of these were fairly square in plan, 2.25m by 2.20m and 2.50m by 2.70m, with postholes at 0.45–0.70m in diameter and 0.18–0.23m deep. The fills comprised dark brown to black clay silt with charcoal flecks <40mm in size. Three other possible four-post structures were within the group that slightly overlapped, suggesting a succession of structures but it is uncertain which was the earlier. These were slightly longer and rectangular at 2.20m by 2.70m in plan and with postholes 0.20–0.30m in diameter, 0.16–0.25m deep. The easternmost group was 2.95m by 3.00m in plan, with two post-pipes surviving, and were between 0.30–0.68m in diameter by 0.16–0.24m deep.

An undated probable four-post structure lay near to the eastern boundary ditch in the southern extent of settlement, GPG3. The posts were set out in a square, 2.6m by 2.6m. Individual postholes were 0.32–0.42m in diameter and 0.14–0.26m deep with steep sides and flat bases. A further 10m along the boundary were two further probable structures; a six-post rectangular arrangement aligned with the boundary that was 2.7m long by 2.4m wide and a possible four-post group with one of the posts missing that was 2.2m by 2.2m in plan. The size and shape of the postholes differed little from those seen elsewhere but tended to be in the larger size range with vertical sides and flat bases. A little further along the boundary were two further posthole groups, one four-post was set square to the side of the boundary ditch, 3.4m by 2.2m in plan; and beside it was a smaller slightly more ephemeral group had one post missing and was 2.2m by 2.2m in plan.

Pits within the southern extent of settlement

Around 60 pits and postholes lay within the southern third of the settlement, accounting for all periods. They were spaced apart in three concentrations in this area (Fig 3.36).

Eleven pits were located at the north-east boundary of settlement over an area of *c.*40m by 20m. Relatively few animal bone fragments were recovered, 75 elements from a single pit. A quarter of the pits were sampled for plant macrofossils, which produced only a few cereal grains and occasional segetal/grassland seeds. Eight of the pits contained late Iron Age pottery and five pits cut later-middle Iron Age ditches. These 11 pits were moderate or large in size mainly 1.2–2.0m wide and 0.28–1.0m deep.

There was no relationship between the size of the pits and the quantity of artefacts recovered from them. Two intercutting pits G[2420] and G[2423] were backfilled together, noticeably late in the sequence, 1.0–1.2m wide by <0.40m deep. There are 24 pottery sherds (220g) from the fill of pit G[2420], whilst in pit G[2423] the lowest deposit contained all of the pottery (73 sherds, 675g) and moderate animal bone. Pit G[2498] contained 23 pottery sherds (265g) and was amongst the largest at *c.*2.5m in diameter and 0.40m deep. Two pits G[2329] and G[2342] were similar-sized, *c.*2.0m wide and <0.36m deep. The pits respectively contained 20 sherds (160g) and 11 sherds (142g) of pottery.

A further ten undated pits and postholes were scattered within GENC8 over an area of *c.*20m by 10m, and in no particular arrangement.

About 40 pits and postholes lay over an area of c.60m by 25m parallel to the south-eastern boundary, GBD1, that mainly comprised small pits and postholes belonging to possible four-post structures and one six-post structure. There were three large late pits G[1941], G[2086] and G[2129]. Pit G[1941] cut later-middle Iron Age enclosure GENC2 and was *c.*3.0m by 2.0m in plan, 0.48m deep, with near vertical sides and a slightly irregular base. It produced 71 sherds (945g) of late Iron Age pottery. The two other large pits cut the settlement boundary and were excavated after the perimeter had been abandoned. Pit G[2086] was sub-rounded, 3.1m wide and 1.08m deep, with steep sides and a rounded base. It contained 64 pottery sherds (1,125g) dating to the late Iron Age/early Roman period. Pit G[2129] was oval, 4.2m by 2.2m in plan, and 0.75m deep with no artefacts.

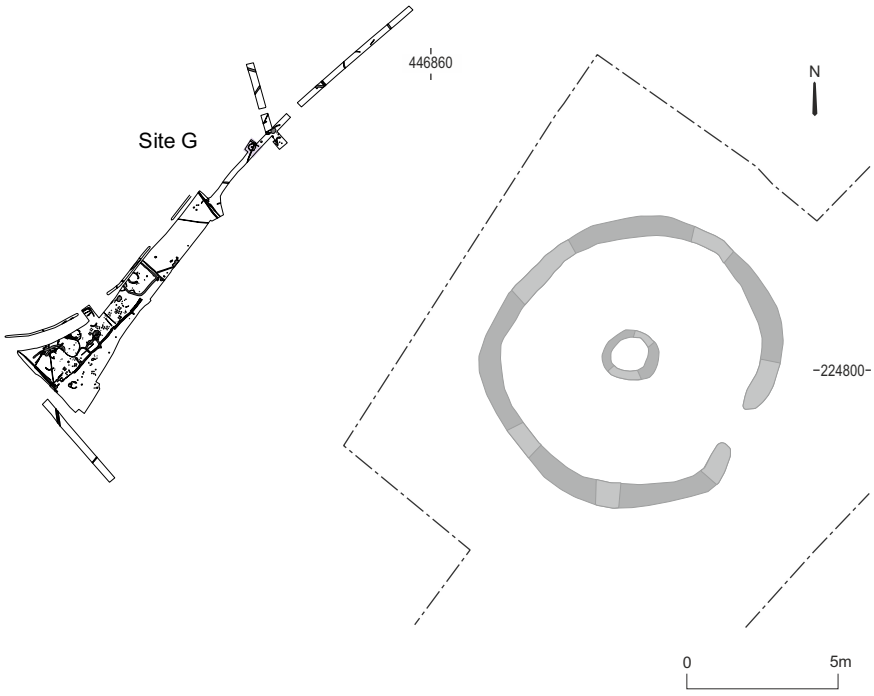
Pits and postholes outside the settlement boundary

About 30 undated postholes lay directly to the south-east of the settlement perimeter over an area *c.*50m by 40m. The only recognizable structure was four-post structure GPG4, which was 2.9m by 2.6m in plan and eccentric to the settlement. The postholes were 0.35–0.54m wide and 0.17–0.25m deep.

An Iron Age roundhouse at Thorn Overbridge, Site G

An isolated Iron Age roundhouse ring ditch was identified during the observation of a targeted watching brief transect, *c.*7–8m wide, along the route of the scheme between the detailed excavations at Sites G and Q on the north side of Thorn Farm (Fig 3.41). The feature comprised two concentric ring ditches and was cut by a medieval ditch across its south-east side. The majority of features in this vicinity were of medieval date (see Chapter 7). The date of the ring ditch is uncertain as it produced no finds, but on the basis of its characteristic form it is considered to be an outlying Iron Age roundhouse. The structure was located more than 200m from the main Iron Age settlement at Site G.

The feature group was formed of an outer penannular ring ditch and an inner circular ring gully. The outer ditch enclosed an area, *c.*8m in diameter, with an entrance, 1.30m wide, on the south-east side. The




Ring ditch, looking south-west

Fig 3.41 An isolated roundhouse at Thorn overbridge, Site G

ditch was 0.48–0.59m wide and 0.15–018m deep with moderate sloping sides and a rounded base. The ditch fill was dark grey to mid brown-grey silty clay, with a few unsorted small rounded pebbles and occasional charcoal flecks. Sparse animal bone fragments were present.

Central to the ring ditch was a small ring gully which enclosed a circular area, 1.30m in diameter. The gully was up to 0.24m wide and 0.10m deep with a narrow V-shaped profile, moderate sloping sides and a narrow rounded base. The fill was firm to friable mid grey-brown silty sandy clay, including occasional small rounded pebbles and charcoal flecks. There were no other associated features.

LATE IRON AGE BOUNDARIES, 1ST CENTURY BC, AT SITE D

Parts of the neighbouring field systems that perhaps related to settlement at Site G comprised four ditches that were largely undated by artefacts but lay stratigraphically late in the sequence of features (Fig 3.42).

BOUNDARY DITCH DBD6

This ditch, aligned north-west to south-east, was exposed for *c.*120m and continued beyond the excavated area in both directions. The extent of the ditch is unknown but geophysical survey indicated that it lay on the same course as the settlement boundary at the north-east end of Site G, boundary GBD4, although medieval furrows on the same alignment made it difficult to discern (Fig 3.36. The ditch was V-shaped, 0.37–0.70m wide and 0.09–0.20m deep with gentle to moderate sloping sides and varied from a rounded to flat base (Fig 3.43). The fill comprised light to mid grey-brown silty clay with natural silting at the base and a gradual sequence of silting above, but no finds.

Two ditches, D[1199] and D[1201], *c.*10m apart and parallel to each other, abutted perpendicular to DBD6 on its north-eastern side. Ditch D[1199] was slightly larger at 1.20m wide by 0.50m deep (Fig 3.43). The fill remained consistent as seen along the adjoining boundary. One sherd of probable late Iron Age pottery and a possible iron awl were recovered.

BOUNDARY DITCH DBD7

This boundary traversed the site for *c.*100m, although it can probably be traced to ditch G[1009], lying to the south-west in the curvilinear drainage trench. The ditch lay roughly parallel with D[1199] and D[1201], and although linear for most of its length a slight kink occurred where it crossed boundary DBD6. The ditch

Fig 3.42 Late Iron Age boundaries, 1st century BC, Site D

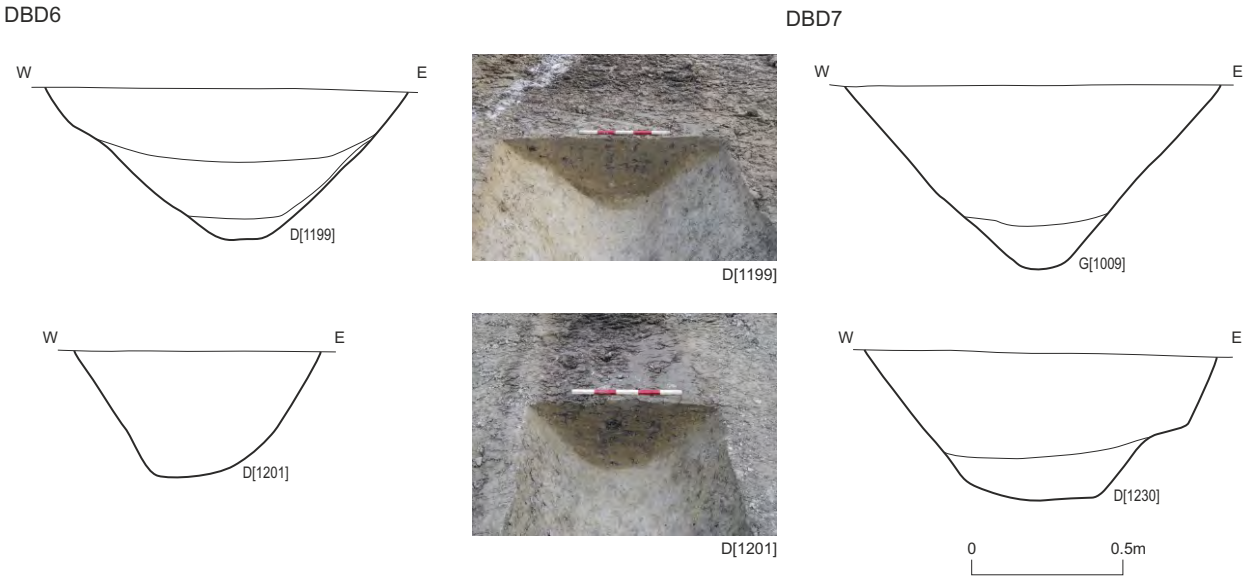


Fig 3.43 Selected profiles through late Iron Age boundary ditches, Site D

was mainly V-shaped, 0.80–1.15m wide and 0.47–0.62m deep with moderate to steep sloping sides (Fig 3.43). The fill was light to mid grey-brown silty clay that contained one sherd of Iron Age pottery.

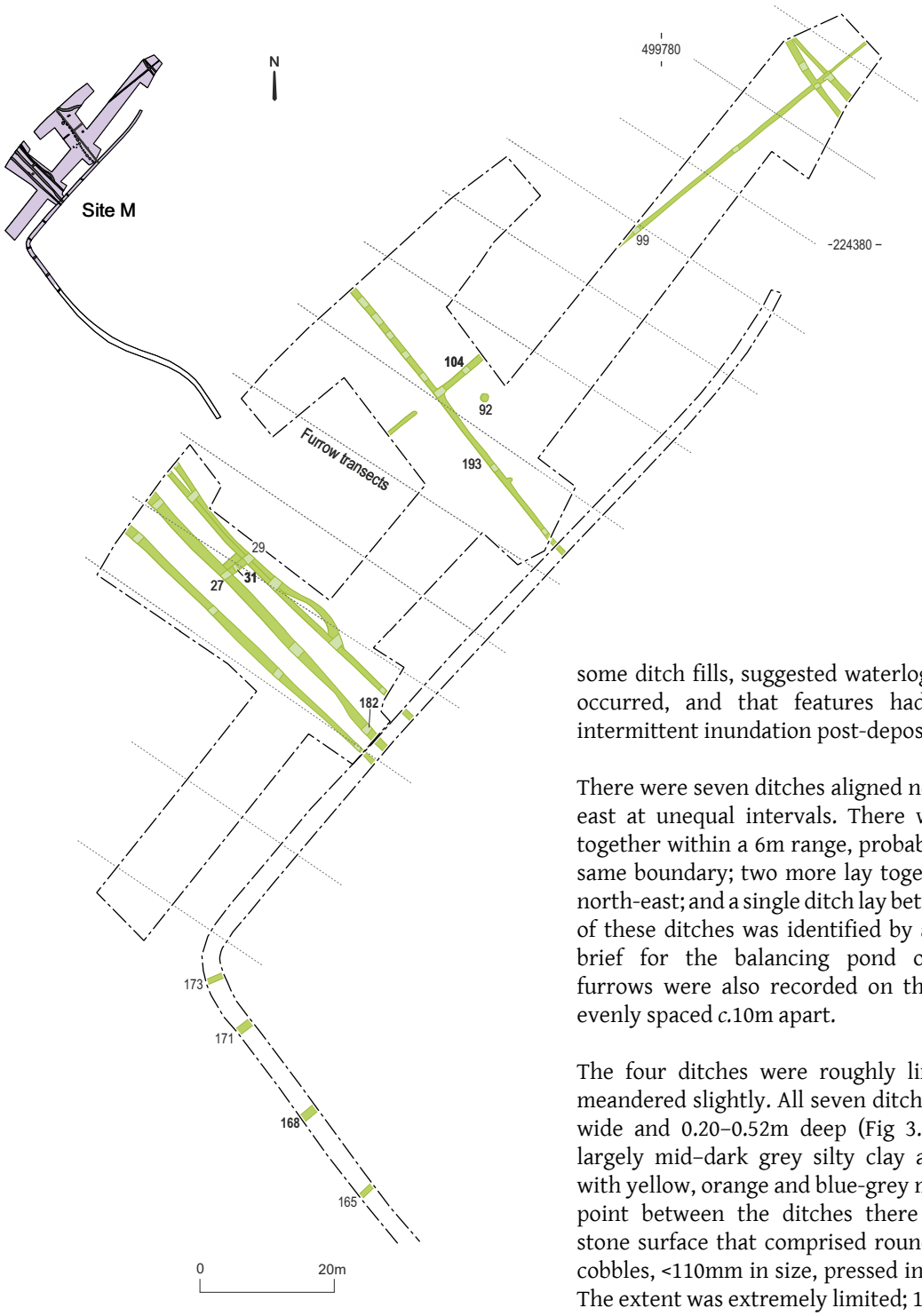


Fig 3.44 Layout of Iron Age boundary ditches, Site M

IRON AGE DITCHES SOUTH OF SITE M

A series of ditches at Site M seemed likely to be part of field systems at Sites D and G (Fig 3.44). The ditches were all aligned north-west to south-east apart from one that was perpendicular to this. The ditches were probably Iron Age but cannot be closely dated within this period, although a later date would match with evidence to the north. Fills were generally sterile plain light or medium grey-brown clay silt. Iron panning in some ditch fills, suggested waterlogging had probably occurred, and that features had been subject to intermittent inundation post-deposition.

There were seven ditches aligned north-west to south-east at unequal intervals. There were four bunched together within a 6m range, probably recuts along the same boundary; two more lay together, *c.*110m to the north-east; and a single ditch lay between. Continuation of these ditches was identified by a general watching brief for the balancing pond overflow. Medieval furrows were also recorded on the same alignment, evenly spaced *c.*10m apart.

The four ditches were roughly linear although one meandered slightly. All seven ditches were 0.60–1.40m wide and 0.20–0.52m deep (Fig 3.45). The fills were largely mid–dark grey silty clay and clay silt, often with yellow, orange and blue-grey mottling. At a single point between the ditches there was a compacted stone surface that comprised rounded chalk and flint cobbles, <110mm in size, pressed into the natural clay. The extent was extremely limited; 1.5m by 1.7m in plan and 0.05–0.11m thick. The stone seemed to have been an attempt to consolidate soft ground and raised the possibility that the parallel linear ditches might define a trackway, although this could not be seen beyond the concentration of stone. A silty clay layer accumulated over the stone surface.

A single boundary, M[104], aligned north-east to south-west over *c.*79m, was formed by two ditches. The longer ditch extended north-east from, and was perpendicular to, ditch M[193] with which it had a junction. There was a gap, 4.0m wide, between the junction and the

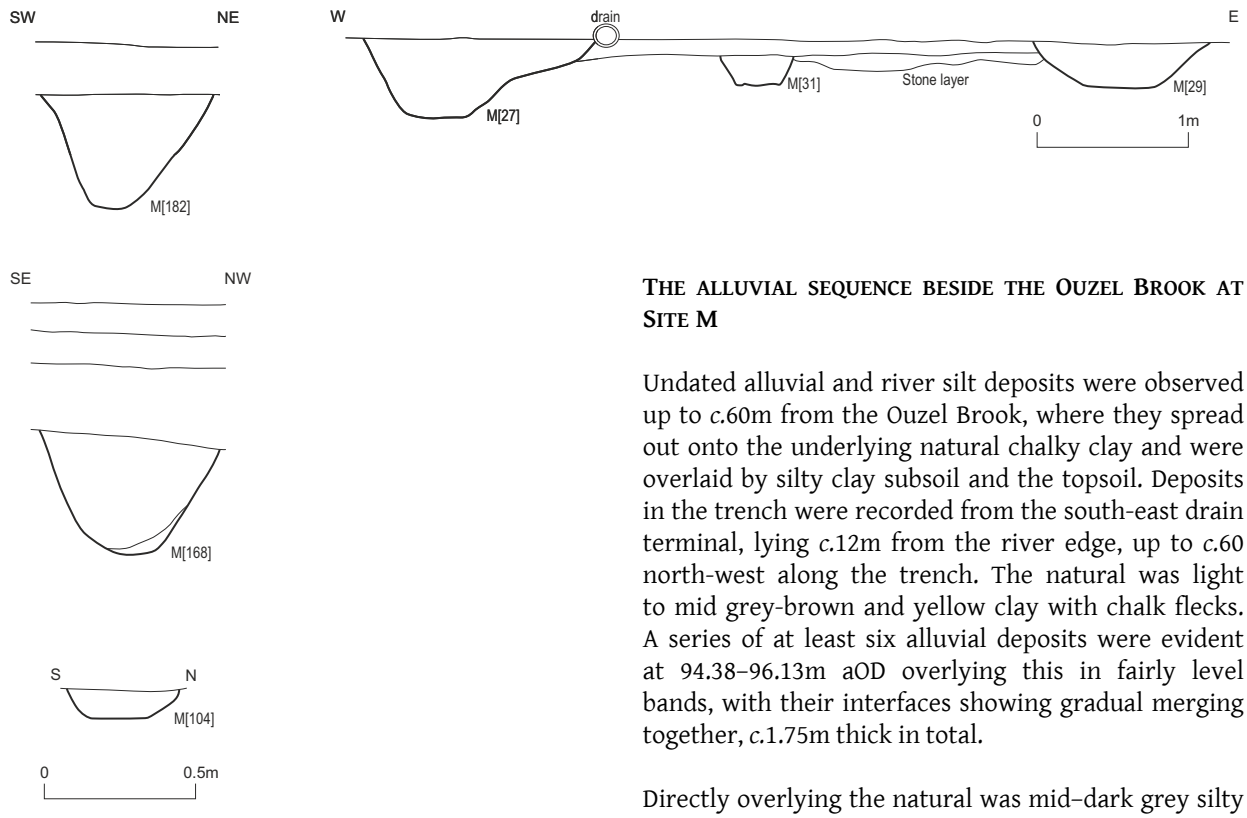


Fig 3.45 Selected profiles of boundary ditches, Site M

terminal of a shorter length of ditch, which formed a probable entrance. At the eastern side of Site M its relationships with the other ditches were unclear. The ditch was 0.59–0.90m wide and 0.18–0.30m deep, with steep sloped sides, and a flat base (Fig 3.45). A single undated pit M[92] was located close to the east side of the ditch.

A drainage trench was monitored by general watching brief for *c.*200m from the balancing pond following the north-east side of the A5 along the base of the embankment and terminating close to the bank of the River Ouzel.

Along this stretch there were four undated features visible in both sides of the drainage trench which crossed their route; M[165], M[168], M[171] and M[173] (Fig 3.44). The true alignment of these features was not observed. The ditches were unevenly spaced, 0.65–1.2m wide and 0.39–0.80m deep, with ditch M[168] being the largest (Fig. 3.45). Overlying the ditch there was more than 0.6m of subsoil, probably due to its position on the flood plain close to the stream. There were no features in the 175m between ditch M[165] and the Ouzel Brook, presumably as this was the flood plain.

THE ALLUVIAL SEQUENCE BESIDE THE OUZEL BROOK AT SITE M

Undated alluvial and river silt deposits were observed up to *c.*60m from the Ouzel Brook, where they spread out onto the underlying natural chalky clay and were overlaid by silty clay subsoil and the topsoil. Deposits in the trench were recorded from the south-east drain terminal, lying *c.*12m from the river edge, up to *c.*60 north-west along the trench. The natural was light to mid grey-brown and yellow clay with chalk flecks. A series of at least six alluvial deposits were evident at 94.38–96.13m aOD overlying this in fairly level bands, with their interfaces showing gradual merging together, *c.*1.75m thick in total.

Directly overlying the natural was mid–dark grey silty clay with a moderate number of small chalk chips/flecks, <0.20m thick. The subsequent layer comprised thin bands of pale grey-brown silt, dark brown silty sandy clay, pale brown silt and mid–dark brown silty clay with varied thicknesses of 0.06–0.40m and few small chalk chips/flecks. The upper alluvial deposit was pale brown clay, 0.12–0.15m thick.

At 30–37m from the Ouzel Brook, only the uppermost layers were present, spread out across the flood plain with a total thickness of 0.50–0.68m. The ground surface between these sections displayed a small drop in level, which would suggest this area was susceptible to flooding and standing water, and which filled with alluvium. At 45m from the brook alluvial deposits were no longer present and the ground level arose steadily from 96.02m aOD.

SPECIALIST STUDIES

FIRED CLAY AND DAUB

BY PAT CHAPMAN

SITE G

There are 149 pieces (2,100g) of chalk and chalky clay-based daub with occasional small fragments of fired clay. Sparse fragments of fired clay or chalk were scattered through 75% of contexts containing daub;

predominantly these were in ditch fills and spanned all of the Iron Age periods. The larger quantities were concentrated in seven groups, mainly in the south-western area of the settlement. Most features had less than 20 fragments and their size/weight was generally low. The main concentrations were in undated pit G[1350]; in the earlier-middle Iron Age ditch of GENC1 and pit G[1874]; and in later-middle Iron Age boundary ditch GD4. Late Iron Age concentrations were along the south-west settlement boundary and the south-east boundary close to GENC7, in the ring ditch of roundhouse GRD10, and in the ditch of GENC5.

Twenty fragments, mainly large, including wattle impressions 10mm, 15mm and 20mm in diameter, come from the later-middle Iron Age boundary ditch GD4.

Angular and blocky chalk, possibly carved out from the original rock, comes from pit G[1350] near late Iron Age roundhouse GRD9 and the south-west settlement boundary, GBD2. Contemporary with this is the chalk with flat surfaces and wattle impressions, 20mm in diameter, from the south-east boundary of GENC7.

Slightly soft white and pale orange chalk fragments from pit G[1874] and the roundhouse GRD10 entrance terminals include flat and sub-rounded pieces, 10–15mm thick.

The late Iron Age assemblage from GENC7 and pit G[1174] near ring ditch GRD9 contains mixed chalk and fine clay, pale orange or brown in colour with a black core.

SITE D

There are 16 small fragments of fired clay, weighing 137g, which come from three of the early Iron Age pit clusters and their associated layers and from enclosure ditch on the northern edge of the site. The material is predominantly hard lumps of chalk with added clay, angular with one flat surface and an irregular opposing side, white or grey in colour. Four tiny sandy red-brown fragments come from a layer above one of the pit clusters.

SITE K

There are 593 pieces (1,974g) of fired clay from pit K[95]. They are either angular with rounded edges, or sub-rounded pieces of very light vesicular light yellow-brown silty chalky clay, almost approaching fuel ash slag in type, indicative of high temperature. Thirteen pieces are relatively large, 65x55x40mm to 70x70x06mm in size, with a few having vestiges of a flat surface with an indeterminate curvature. Four of these larger pieces and three smaller pieces have impressions that could be attributed to wattle impressions, 10–20mm in diameter, with one piece including an impression with a diameter of 35mm at an opposing angle. The remaining fragments are 40x35x25mm down to 3x3x3mm in size. There are also 28 tiny fragments (18g) of irregularly-shaped red to black fired clay.

EARLY IRON AGE POTTERY

BY ANDY CHAPMAN

Pit clusters and individual pits at Thorn Road (Sites D/G), where they were partially overlain by later settlement, produced assemblages largely in fine and coarse sandy fabrics, Fabrics A and B, and some shelly wares, Fabric C.

A sample of charcoal from pit D[1224] has indicated that the assemblage dated to the end of the early Iron Age (see Beta-446414; Table 3.16 for full details of the radiocarbon date). A charcoal sample from pit D[1160] has given a date in the later-middle Iron Age (Beta-446413; Table 3.16), which is considered to derive from later contamination as the pottery is consistently early Iron Age in date.

THE EARLY IRON AGE POTTERY OF THE SOUTH MIDLANDS

Early Iron Age pottery assemblages across Bedfordshire, Milton Keynes and Northamptonshire are characterised by two particular vessel forms. These comprise: coarseware shouldered jars often with bold fingertip impressions on the shoulder and sometimes the neck, and also fingertip impressed rims; and fineware bowls, usually thin-walled and often uniformly dark-grey/black with highly burnished surfaces and typically carinated, sometimes with highly exaggerated carinations, and they sometimes have incised decoration.

The general coarseware form does occur in earlier assemblages of the late Bronze Age/early Iron Age, as has long been recognised, but these vessels are quite distinct, being often quite poorly executed, uneven and asymmetrical.

However, recent analysis of assemblages in the region, supported by radiocarbon dating, has established that the coarseware jars have a wider currency than the early Iron Age. Closely similar vessels, with well-defined shoulders, elongated necks and fingertip decoration, continue into the earlier-middle Iron Age, perhaps to around 300BC, and this middle Iron Age chronology will be discussed in more detail below.

It is, therefore, only the carinated and burnished bowls that are time-limited to the early Iron Age and therefore diagnostic for this period. They may be plain or have incised linear decoration, typically taking the form of double running chevrons as zig-zag motifs,

and variations on similar themes such as multiple-lined triangles, sometimes filled with impressed dots. The decoration is typically boldly executed, but quite simply and unevenly with no concern for geometric exactitude. There is no similar decoration on vessels of the middle Iron Age.

It is, therefore, only when the fingertip decorated coarseware vessels are accompanied by the fineware burnished carinated bowls that an Early Iron Age date can be confidently assigned and, as noted above, radiocarbon dating has placed the early Iron Age assemblage from Site D between 650-400 cal BC.

Similar assemblages have been recovered from numerous sites in the region. There is quite a large assemblage from Fairfield Park, Stotfold, associated with a ditched enclosure, Phase 1. This enclosure was assigned to the late Bronze Age, although it is noted in the text that the enclosure may date to the early Iron Age with the single deposit of late Bronze Age pottery being residual (Webley *et al.* 2007, 13-15). It is suggested by this author that this alternative seems far more likely. A corollary of this conclusion is that the so-called early Iron Age settlement, Phase 2, with its multiple small enclosures, roundhouse ring ditches and pits, actually dates to the middle Iron Age, as is indicated both by the structural form of the settlement and a substantial group of associated radiocarbon dates (Webley *et al.* 2007, fig 2.3 and table 2.12 and fig 2.38). It is suggested by the present author that the pottery assemblage which the published dating was based on actually comprises a mixture of residual early Iron Age material from the Phase 1 enclosure and long necked forms of the earlier-middle Iron Age.

Other sites with classic early Iron Age assemblages include a scatter of pits from Elstow, Bedfordshire (Chapman 2017) and a substantial assemblage from the secondary fills of multiple pits within a pit alignment at Passenham/Calverton Quarry, adjacent to the River Great Ouse on the Milton Keynes/Northamptonshire border (Chapman 2011b). There is also a similar group from a pit alignment at Salford, Bedfordshire, comprising carinated bowls with elongated necks decorated with multiple lined zig-zags set between multiple horizontal lines, a decorative scheme more complex than many others (Dawson 2005, 19-24 and fig 2.16).

EARLY IRON AGE PITS AND PIT CLUSTERS AT SITE D

The material from the pits and pit clusters is all consistent in form, fabrics and decoration, and was assigned to the early Iron Age due to the distinctive incised line decoration, particularly the double running chevrons (zig-zags). They are accompanied by shouldered vessels with long necks where the shoulders are often decorated with bold fingertip impressions, although this form of decoration has a wider chronological base, extending from the late Bronze Age and continuing into the earlier-middle Iron Age, as discussed above.

Coarse sandy fabrics dominate the early Iron Age assemblage, at 75.2% by sherd count and 78.1% by weight (Table 3.2), in contrast to the later-middle Iron Age assemblages where the coarse sandy fabrics are in a minority to a range of finer sandy fabrics. In terms of the number of pottery vessels within the assemblage the proportion of coarse wares would be lower, as this fabric typically occurs as thicker walled and larger jars, including examples with fingertip decoration on the shoulders. The fine sandy to silty fabric makes up 18.6% of the assemblage by sherd number but only 15.1% by weight, as the sherds are typically thinner walled and account for the majority of the finer vessels, those that are usually grey with smoothed or burnished surfaces and sometimes showing incised line decoration.

A further 4.5% of the assemblage comprises sherds containing crushed shell, and these mainly occur as clusters of sherds in various pit groups that have probably come from a limited number of vessels, largely medium-sized jars. These may well be imports from further north, as shelly ware is the dominant fabric of the Nene valley of Northamptonshire and also occurs in the surrounding counties, forming perhaps 5-10% of the assemblages in north Buckinghamshire, Milton Keynes and north Bedfordshire. At least one shelly ware vessel had the body decorated with finely-combed decoration, now severely eroded and barely visible (Fig 3.46, <P8>

Table 3.2: Quantification of early Iron Age pottery, Site D

Fabrics	**Totals**		**Fabric A: Fine sandy**		**Fabric B: Coarse sandy**		**Fabric C: Shelly**		**Fabric D: Flint**	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	**971**	**12003**	**181**	**1807**	**730**	**9370**	**44**	**696**	**16**	**130**
Percentages	-	-	18.6	15.1	75.2	78.1	4.5	5.8	1.6	1.1
Average sherd	-	12.4g	-	10.0g	-	12.8g	-	15.8g	-	8.1g

Fig 3.46 Distinctive early Iron Age decorated vessels, Site D

right). The scoring had been executed with a fine comb, with five lines per 9mm, and is both regular and much finer that the crude scoring of the scored ware vessels that are such a characteristic feature of the middle Iron Age in the East Midlands, spanning Northamptonshire, parts of Leicestershire within the Welland valley and also north Buckinghamshire, Milton Keynes and north-west Bedfordshire.

FORM AND DECORATION

The overall colour scheme is for darker colours with surfaces ranging from dark red-brown to dark brown and grey-brown. Some of the larger jars have smoothed surfaces and while the assemblage is dominated by plain vessels, a number of these have rows of bold fingertip impressions along the shoulders. The shoulders are well developed and the necks are elongated, either upright or concave. The rims are usually simple upright rims either rounded or flattened, although there are a few expanded T-shaped flattened rims. A single coarse sandy jar has deeply-incised triangular motifs along the shoulder (Fig 3.46, <P9>). Most rims are plain but a few are decorated with either fingertip impressions or incised line decoration.

There are also frequent examples of thin-walled vessels, typically with grey surfaces smoothed or burnished, in a fine silty rather than sandy fabric, with a proportion of these showing incised line decoration, particularly double lined chevrons or multiple lined triangular motifs (Fig 3.46, <P8>, <P10-13>). The bases are flat, although there is a single fineware vessel with a simple footring base.

DIAGNOSTIC CONTEXT GROUPS FROM SITE D

The fill D[1120] of pit D[1125] in DPC2 produced a large group, weighing 1.3kg, with numerous diagnostic characteristics. A small thin-walled jar has an elongated neck with deep linear incisions on the pronounced shoulder. There is also a shoulder decorated with

closely-spaced and deeply-incised oval fingertip impressions, with the fingernail impressions visible within the hollows. Of the rims, two are simple rounded rims and two are expanded flat-topped rims, and one of the latter is on a jar with a highly burnished external surface, while a small, thin-walled rounded bowl has a smoothed surface. This group also includes a distinctive thick-walled shouldered jar/bowl (rim diameter *c*.200mm), with deeply impressed triangular impressions along the shoulder below a concave neck, a form not seen elsewhere within this or any other of the Iron Age assemblages (Fig 3.46, <P9>).

Also in DPC2, the fill D[1156] of pit D[1160] produced 1.1kg of mainly plain body sherds. However, a shouldered jar has fingertip impressions on the shoulder and a single body sherd with a grey smoothed surface has part of an incised single chevron (Fig 3.46, <P10>).

To the east, in DPC3, the fill D[1210] of pit D[1212] contained a broadly similar assemblage, weighing 1.4kg, including two body sherds with fingertip decoration, a small body sherd in a shelly fabric with fine combed decoration. Smoothed and burnished body sherds with grey surfaces include three showing remnants of double incised chevrons and another has a deeply-incised V filled with sparse impressed points, positioned on either a shoulder or a carination (Fig 3.46, <P11>). One of these thin-walled vessels also has a base with a shallow footring (not illustrated), as opposed to the simple flat bases of the other vessels. To the south, DPC1 also produced early Iron Age pottery but in smaller quantities.

Similar but smaller groups came from a number of individual pits. To the south-west, the fill D[1075] of pit D[1077] contained plain body sherds in a coarse sandy fabric with an oxidised dull orange surface, but a single sherd, probably from a rounded shoulder has a pair of fingertip impressions, while the rim is T-shaped, with a gently rounded top. A single sherd has a grey burnished external surface. Also to the south-west, the fill D[1091] of pit D[1094] produced a shoulder with fingertip decoration, a small body sherd with fine combed decoration and three sherds with grey surfaces, smoothed externally, with one from a thin-walled jar with an elongated neck, 25mm high.

To the north-west, the fill D[1163] of pit D[1165] contained a small group, 270g, but this included sherds from thin-walled vessels with grey, smoothed surfaces, with one sherd retaining a remnant of an incised double chevron. There are also body sherds from a jar in a shelly fabric with an abraded external surface that has a remnant of finely scored decoration covering the entire surviving surface (Fig 3.46, <P8> right).

A small group, weighing 0.7kg, from the fill D[1247] of pit D[1249] is dominated by plain coarse body sherds from jars, but also contains a significant quantity of finer thin-walled wares, grey in colour, with five small sherds having elements of double incised line decoration and also triangular motifs defined by up to four parallel incised lines. There is also a shoulder with a fingertip impression and part of a lug.

The final fills overlying the larger pit clusters also contained much domestic debris, often as much or more than the underlying pits, indicating that there was a final episode of site clearance. A large primary assemblage, weighing 1.1kg, from layer D[1143] shares the same general characteristics as the material from DPC2 beneath, and includes three shoulder sherds with fingertip decoration and, in addition, a large body sherd with a complete large lug and a fragment from a second lug.

Layer D[1213], overlying DPC3, contains mainly plain body sherds from larger jars in the coarse sandy fabric, along with some shelly ware, but there was also a single rim sherd from a small thin-walled, 5mm thick, vessel, with an upright rim and a slight shoulder in a fabric containing sparse flint and other mineral inclusions, with the neck decorated with a double chevron (Fig 3.46, <P12>).

Layer D[1231] is also dominated by plain body sherds from larger jars in the coarse sandy fabrics, and includes a jar with a broad flat rim, decorated with shallow fingertip impressions. The body is covered with finely combed scoring, while another vessel with a deep neck has an exceptionally broad flat T-shaped rim, 22mm wide, decorated with a running double chevron (Fig 3.46, <P13>).

CATALOGUE OF ILLUSTRATED EARLY IRON AGE POTTERY FROM SITE D (FIG 3.46)

<P8> Sherds with incised (left) and finely combed decoration, pit D[1165], DPC2
<P9> Sherd with triangular impressions on the shoulder, pit D[1125], DPC2
<P10> Sherds with incised (left) and fingertip decorated shoulders, pit D[1160], DPC2
<P11> Sherds with incised running chevrons and a filled triangle, pit D[1212], DPC3
<P12> Rim sherd with the neck decorated with a running double chevron, layer D[1213], DPC3
<P13> Small sherds with incised decoration, layer D[1231], DPC2

EARLY IRON AGE PITS AND PIT CLUSTERS AT SITE G

The pit clusters and individual pits of early Iron Age date at Site G are probably part of the same activity as those at Site D, but at Site G they lay below an area of dense later activity (Fig 3.12). Some pits were undisturbed and the pottery from those has been quantified separately

Table 3.3: Quantification of in-situ early Iron Age pottery, Site G

Fabrics	**Totals**		**Fabric A: Fine sandy**		**Fabric B: Coarse sandy**		**Fabric C: Shelly**		**Fabric D: Flint**	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	**1126**	**15088**	**189**	**2217**	**905**	**12510**	**21**	**240**	**11**	**121**
Percentages	-	-	16.8	14.7	80.4	82.9	1.9	1.6	1.0	0.8
Average sherd	-	13.4g	-	11.7g	-	13.8g	-	11.4g	-	11.0g

Total for Fabric D includes only flint-gritted pottery residual in early Iron Age pits

(Table 3.3), but a number of other early Iron Age pits had evidently been disturbed by later activity, with quantities of diagnostically early Iron Age material present within some groups of later-middle Iron Age date. However, it was not possible to fully extract the entire early component as much of the coarser sandy wares did not have diagnostic features to enable them to be definitively distinguished by period.

DIAGNOSTIC CONTEXT GROUPS FROM SITE G

Small pottery groups came from pit G[1247], weighing 245g, and including a long necked jar and a fine grey vessel with incised decoration and from pit G[1305], weighing 240g, including sherds with fingertip decoration.

A slightly larger group, weighing 0.6kg, from the fill G[1292] of pit G[1293], is dominated by thick coarse sandy sherds from larger vessels, but also includes some thin-walled sherds, 3–4mm thick, uniformly grey with abutting finely incised chevrons forming lozenges.

A large group, weighing 1.56kg, came from the fill G[1460] of pit G[1461], part of a pit cluster GPC2 similar to those at Site D. The assemblage is dominated by sherds from some larger jars in coarse sandy fabrics typically with brown to grey-brown external surfaces, but includes a range of finer, thinner walled vessels typically grey with smoothed or burnished surfaces. A grey globular bowl, rim diameter *c.*200mm, has a sharply everted neck above a rounded body with neatly incised cross lattice decoration (Fig 3.47, <P14>), and a brown to grey-brown rounded bowl in a thicker, coarse sandy fabric is decorated with a boldly incised geometric motif of double triangles (Fig 3.47, <P15>). However, this group also includes a neckless, barrel-shaped jar with an uneven external surface and flat-topped, squared rim; a form that on its own would might be considered to belong to the later-middle Iron Age.

Even larger groups, weighing 4.35kg and 0.73kg, came from the fills G[1511] and G[1512] of pit G[1516], part of the same pit cluster. The material from fill G[1511] is again dominated by thick-walled plain jars but contains an even wider range of forms. A thin-walled vessel in a fine silty fabric is decorated with incised chevrons (Fig 3.47, <P16>). There is also a round bodied vessel, grey with a burnished surface decorated with repeating clusters of three bold fingertip impressions on the shoulder, set below a concave neck and a flat-topped rim (Fig 3.47, <17>).

In addition, an open bowl with a chamfered rim has a finely comb scored surface, and there are a range of rim forms from simple rounded rims to elaborate rims expanded either externally or internally on vessels with smoothed and burnished surfaces with rounded shoulders and long necks. One sherd has a boldly incised geometric design, similar to the bowl from fill G[1460], and there is also a large perforated lug and a chamfered rim decorated with fingertip impressions.

Fill G[1512] of this pit contained a smaller group of mainly plain sherds, but there is a coarse body sherd with a deep fingertip impression, a fine grey vessel with an incised double V motif and a body sherd with oblique fine combed decoration and an upright flat-topped rim.

The material from this pit cluster includes decorative features characteristic of the early Iron Age, but the wide range of other forms present suggests a date at the transition to the earlier-middle Iron Age, perhaps in the late 5th century BC, and maybe a little latter than the pit clusters at Site D.

From fill G[1881] of pit G[1884] there is only a single sherd, but this comprises the rim and upper body of a long neck, 35mm high, on a jar with a pronounced shoulder decorated with a deep fingertip impression. The flat-topped rim is also decorated with adjoining fingertip impressions.

Pit G[1690] is part of the southernmost pit cluster, found to the south-west of the main Iron Age settlement, and the fill G[1688] contained plain body sherds largely

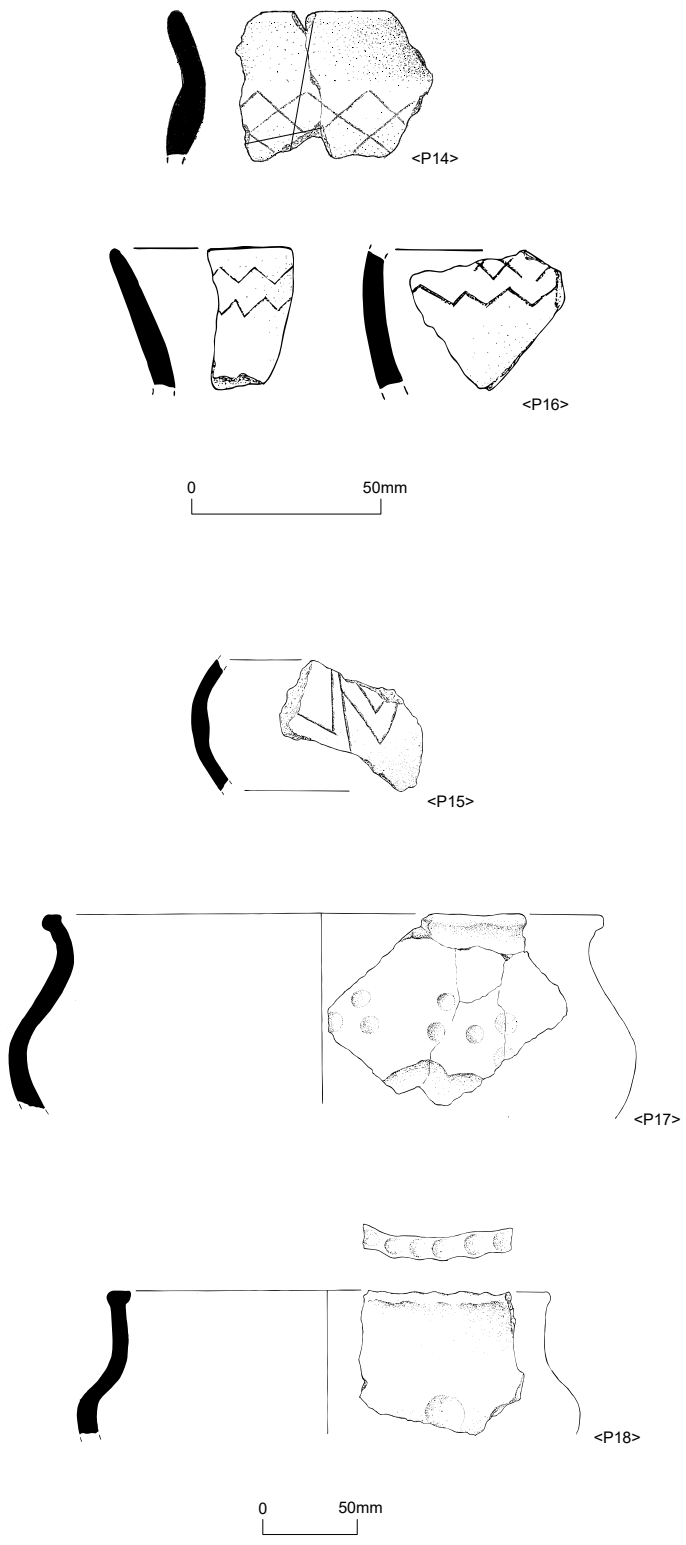


Fig 3.47 Distinctive early Iron Age pottery, Site G

in coarse sandy fabrics similar to the early Iron Age assemblages. The fill G[1678] of pit G[1680], part of the same pit complex, also contained sherds of coarse sandy wares with orange surfaces, and some flint-gritted sherds residual from late Bronze activity. The balance of the assemblage indicates an early Iron Age date for the pit, so a large body sherd of middle Iron Age scored ware in fill G[1678] presumably derives from later disturbance or continued use of these features.

The fill G[1970] of a large pit G[1972] was cut by the north-western arm of a small ditched rectangular enclosure of later-middle Iron Age date, and associated fills, such as G[1881] at the north-east end of the pit, produced a substantial assemblage, more than 2kg, of early Iron Age pottery, comparable to other pit clusters. The assemblage is dominated by jars with light orange to grey-brown surfaces in a coarse sandy fabric. This includes long necked, shouldered jars with an example from fill G[1881] having a flat-topped finger-impressed rim and large finger impressions on the shoulder (Fig 3.47, <P18>), although this vessel would also be acceptable within an earlier-middle Iron Age context of the 4th to mid-3rd centuries BC.

There are also sherds from a vessel in a coarse sandy fabric with fine combed decoration, and sherds from several thin-walled vessels, 4–6mm thick, usually uniformly dark grey. These are heavily fragmented but include two sherds with remnants of paired incised line decoration. There is also a circular lug, 39mm diameter, 18m thick with a perforation 9mm in diameter.

The fills G[1866] and G[1871] of pit G[1874], produced a small group, weighing 0.71kg, which is dominated by coarse wares, including fragments from one or two lugs, but also contains some thin, burnished sherds from a vessel with a rounded rim and a fine rim in fine silty fabric decorated on the outside with a triple chevron and on the inside by abutting chevrons forming diamonds.

There was also probably an early pit or pit cluster to the south-west that was entirely removed by later features, as several contexts in this area contained residual sherds of coarsewares and finewares with either incised line or fine combed decoration. The final fill G[2261] at the eastern terminal of a short length of ditch contained 1.03kg of very mixed pottery, perhaps derived from deliberate infilling and levelling of the ditch. A high proportion of coarse sandy fabrics, including a sherd with fine combed decoration, and the presence of some fine thin-walled vessels, one of which has an incised chevron, suggest that the better preserved proportion of the assemblage is residual material of the early Iron Age. There is also a sherd with fine combed decoration from the fill G[2266] within the same ditch terminal, while the rest of the group comprises small fragmented sherds spanning the middle to late Iron Age, perhaps from surface trample. The fill G[2419] at

the southern terminal of G[2421] also contained a sherd with fine combed scoring.

Further early Iron Age material comes from fills within the L-shaped ditch, GD4, to the immediate west (Fig 3.16), including sherds from fine grey vessels decorated with incised line decoration, including chevrons. All of these contexts also contain coarse sandy sherds from jars probably dating to the early Iron Age, based on the coarse sandy fabric and the oxidised surfaces, although there are no other diagnostic features to confirm this date.

CATALOGUE OF ILLUSTRATED EARLY IRON AGE POTTERY FROM SITE G (FIG 3.47)

<P14> Small globular bowl with incised lattice decoration and sharply everted neck, pit G[1461]
<P15> Large globular bowl with boldly incised double triangles, pit G[1461]
<P16> Sherds from thin-walled vessel with double incised chevrons, pit G[1516]
<P17> Globular burnished bowl with clusters of fingertip decoration, pit G[1516]
<P18> Long necked shouldered jar with bold finger impression on the shoulder, pit G[1972]

EARLIER-MIDDLE AND LATER-MIDDLE TO LATE IRON AGE POTTERY

BY ANDY CHAPMAN

Pottery broadly dating throughout the middle to late Iron Age (400BC–AD43) was recovered from all of the key Iron Age sites. There is inevitably a little overlap between this report and the report on the late Iron Age/early Roman pottery (see Chapter 4), with wheel-finished vessels falling in the latter category with the exception of a few stray sherds, some of which are certainly intrusive in late Iron Age contexts containing hand-built pottery.

A small assemblage, weighing 2.0kg, from pits and a pit cluster at Site K is the only group that can be specifically dated to the earlier-middle Iron Age (400–250BC) with no continuation among this feature group into the later-middle Iron Age or beyond. As noted below, this might be seen as a final occurrence of areas of settlement defined only by pits and pit clusters, as seen on other sites through the late to middle Bronze Age and the early Iron Age.

Thereafter, settlement is characterised by ditched enclosure and boundary ditch systems, including some roundhouse ring ditches and a few pits. The assemblages derived from the ditch systems are more often a product of at least secondary deposition, in comparison to the higher percentage of primary deposition within the earlier pit groups, and as a result these later assemblages tend to be more mixed and fragmented, offering little in the way of vessels that could be even partially reconstructed. Site Q was unusual in that although the assemblage was largely derived from ditches, as at Sites D and G, it still contained a number of small primary groups, and therefore much of the illustrated material of late Iron Age date is derived from this site.

Sites D and G and Q are dominated by assemblages containing hand-built vessel types attributable to the late Iron Age, the 1st century BC to the early 1st century AD. It is more difficult to provide a clear date of origin as many of the vessel forms of the later-middle Iron Age, such as high necked jars and imported scored ware jars, also continued into the 1st century BC. However, the dominance of late forms would suggest that while settlement at Sites D and G and Q may have begun as early as the 2nd century BC, they both peaked in the 1st century BC. Site D and G was abandoned before the early 1st century AD, while Site Q underwent an episode of development during the early Roman period.

The quantification and the character of the individual assemblages and significant diagnostic feature groups are described below, following the description of the regional pottery typology and chronology that has formed the basis for analysing the site assemblages.

THE EVOLUTION OF THE IRON AGE POTTERY CHRONOLOGY IN THE SOUTH MIDLANDS

The basic problem of analysing Iron Age pottery assemblages is the presence of limited diagnostic forms produced within a conservative tradition where changes were perhaps a product of slow evolution rather than the result of more rapidly changing fashions or practical needs, at least until the late Iron Age of the 1st century BC, when a wider repertoire of forms and even fabrics did appear.

As a result, it is still not uncommon to see pottery reports within commercial archaeology claiming that assemblages can be dated only broadly to the entire span of the middle Iron Age (400-100BC) or even the middle to late Iron Age (400-0BC), following a safety-first approach. This limited approach is also partly a product of a lack of modern published accounts applying a more subtle analysis to act as exemplars, leading to a tendency to fall back on pioneering but now outdated studies such as Elsdon (1992) on the scored ware jar, one of the most readily identifiable decorative forms appearing within middle Iron Age assemblages across the region, even though it appears in quite small numbers beyond its home range, focussed on the Nene valley in Northamptonshire.

The analytical approach taken in the present analysis owes its origins to the many years of work, from the 1970s onward, by Dennis Jackson (2010) on Iron Age pottery in Northamptonshire, which itself was built on the work of others such as Knight (1984). Much of Dennis's understanding was intuitive and qualitative, rather than quantitative, based on working through numerous assemblages, including those from excavations by the present author at DIRFT (Daventry International Rail Freight Terminal), Northamptonshire (Chapman 2015a and 2015b) and Coton Park, Rugby Warwickshire (Chapman forthcoming b).

Following in Dennis Jackson's footsteps, the present author has now reported on numerous assemblages from Northamptonshire and adjacent counties, and some further afield, often with the additional benefit of radiocarbon dating to confirm the identified distinctions between early Iron Age (650-400 BC), earlier-middle Iron Age (400-250/200BC), later-middle Iron Age (250/200-100BC), late Iron Age (100-0BC) and late pre-Roman assemblages (0-43AD). The broad characterisations derived from Dennis Jackson's work still hold, but various aspects have since been modified in the light of examining further assemblages. There are also implications for dating, as the final chronology proposed by Dennis (Jackson 2010) was based on a small number of radiocarbon dates from his own excavations, quoted as uncalibrated dates.

Characterising context groups

The diagnostic features of Iron Age pottery include a number of broad traits that show gradual changes through time, with a diagnostic feature becoming more or less common as a proportion of the whole group, rather than beginning or ending abruptly, although there are some more abrupt changes of form and decoration. The dating of any particularly context group is therefore often a matter of balancing the various strands of evidence, such as: the presence and length of the neck, the predominant surface colour, the presence and location of fingertip and fingernail decoration, the presence and style of surface scoring, the presence of grey globular bowls, sometimes with impressed curvilinear decoration, as well as changes in the overall vessel forms. Of course, many smaller context groups do not contain such diagnostic material and cannot be dated any closer than broadly middle Iron Age.

In contrast to most other periods, fabric is probably the least informative attribute, as most fabrics within a region show little change through the span of the middle Iron Age, although as with forms, change does become more rapid in the late Iron Age, and fabrics do help to identifying the extent of trade links, such as shelly ware scored ware jars that may have come from Northamptonshire and granitic fabrics from Leicestershire.

Any Iron Age typology and chronology is, of course, only a work in progress, but it is encouraging that a typology and chronology derived largely from work centred on Northamptonshire has been found to be applicable, as confirmed by the radiocarbon dating, in south Bedfordshire. The actual typology is summarised briefly below.

The Iron Age pottery sequence and chronology for the south Midlands

The early Iron Age to earlier-middle Iron Age transition

The continuation of vessels with developed shoulders, elongated necks and often with fingertip decoration on the shoulders and rim, into the earlier-middle Iron Age (400-250/200BC) has already been mentioned in relation to the early Iron Age pottery.

The widespread interpretation of such vessels as belonging to the early Iron Age, even in the absence of accompanying fineware bowls, often carinated and decorated, has caused problems in dating settlements during this transition period too early.

The presence of shouldered jars with fingertip impressions at DIRFT (Daventry International Rail Freight Terminal), Northamptonshire was cited as dating several roundhouses to a primary phase of development beginning in the early Iron Age, period 2,3 (Hughes and Woodward 2015, 27-32 and fig 13). However, given doubts about the phasing of such complex roundhouse ring ditch clusters to the early Iron Age, radiocarbon dates were obtained during the final stages of report preparation in 2014. These dates were in the earlier-middle Iron Age (*ibid*, 15-16, table 1), with the characteristic double calibrated date ranges, due to an irregularity in the calibration curve, spanning the 4th century and 3rd centuries BC. Unfortunately, it was too late to revise the site phasing to reflect this revised chronology, but it does serve to illustrate the problem.

The A5-M1 has provided a further confirmation of this typology and chronology. The pottery assemblage from Site K was quite distinct from the material from the other sites in including vessels with distinct shoulders and elongated necks, sometimes finger impressed, but with an absence of finer wares with incised decoration. In this case they came from a pit complex rather than a ditch and ring ditch complex, and could have been considered to belong with the other early Iron Age pit clusters. However, the initial assigning of Site K to the earlier-middle Iron Age based on the pottery alone was

subsequently confirmed by three radiocarbon dates, two of which produced identical dates of 360-170 cal BC at 95% confidence (Beta-458339 and Beta-446415), while the other produced the more usual multiple date ranges of 350–295/230–220/210–105 cal BC at 95% confidence (Beta-446416) (Table 3.16).

Within the earlier-middle Iron Age the necks of vessels became shorter with time and the shoulders less marked, showing a gradual evolution towards the neckless jar forms characteristic of the later-middle Iron Age. Also originally noted by Dennis Jackson, there was also a transition in surface colour, with the earlier-middle Iron Age vessels more often showing oxidised surfaces of orange-red to brown while the neckless jars of the later-middle Iron Age most typically have darker surface colours, browns to dark greys. This would seem to denote a change in the firing of these vessels, probably an improvement in the firing technology so that greater areas of the surface were fired in an oxygen free environment to create a reduced, dark coloured, surface, but probably only denoting larger fires so that more of the pot surfaces lay within protective deposits of ash. The cores were still grey-black due to the presence of unburnt organics within the clay (Gibson 2002, 45-46).

LATER-MIDDLE IRON AGE STORAGE JARS AND THE APPEARANCE OF ROTARY QUERNS

The later-middle Iron Age assemblages (250/200-100BC) are dominated by sherds from jars, with finer wares much less common.

Given the high level of fragmentation and the consequent lack of full vessel profiles, it is not possible to provide a quantitative examination of jar size for the A5M1 material, but in other assemblages the thicker-walled jars of the later-middle Iron Age are often larger than the jars of the earlier-middle Iron Age.

At Barton Seagrave, Northamptonshire, later-middle to late Iron Age storage jars in a pit group of dumped wasters included three jars standing 400-500mm high (Chapman forthcoming a) and some examples of large jars have shown heavier wear on the upper body, indicating that the lower body had been protected from wear, probably as a result of being set in the floor of a roundhouse, as an immovable storage container. The presence of the distinctive heavy rims and thick-walled body sherds from storage jars of the late pre-Roman Iron Age, late 1st century BC and early 1st century AD, shows that the need for large containers continued, and these were typically even larger than the storage jars of the later-middle to late Iron Age.

It is suggested that this apparent increase in the size of storage jars in the later-middle Iron Age may have coincided with a rapid growth in availability and use of the rotary quern, replacing the far less efficient saddle querns. The greatly increased capacity for milling grain into flour offered by the rotary quern would have required a parallel increase in the capacity to store grain, and perhaps also milled flour, within the domestic roundhouse, with this being achieved by increasing the size of the storage jars. What appears to be a consequent lowering of the standard of potting and firing may have been because the majority of these larger vessels were destined to be set into the house floor, and did not need to be durable enough to be handled and moved around.

The date at which the rotary quern first appeared in England has been the subject of much debate. There are various claims that they appeared towards the end of the 5th or in the early 4th century BC, but Peacock (2013, 54-58) has argued that the claimed early dates from Gussage-All-Saints, Wiltshire and other sites cannot be regarded as secure, and only Danebury, Hampshire stood up to close scrutiny in suggesting a first appearance between 450-400 BC.

In the midlands, a group of rotary querns from a single pit at Fairfield Park, Stotfold, Bedfordshire have been claimed as potentially 5th-4th century in date (Webley *et al.* 2007, 89-91). The problems of the chronology for this site have already been discussed in relation to the early Iron Age pottery, where it was argued that the supposed early Iron Age settlement, phase 2, was in fact of middle Iron Age date going by the radiocarbon dating. The pit containing the rotary querns was included within the early settlement, phase 2, on the basis that it lay between the terminals of a phase 2 ring ditch, Structure 3, although it also equally closely lies between the terminals of a later overlapping ring ditch, Structure 4 (Webley *et al.* 2007, 27-29 and fig 2.13) which would place it in phase 3, the final phase of middle Iron Age settlement. The early attribution of the rotary querns from Fairfield Park is therefore also unsound.

At its simplest, rotary querns are generally absent from sites dated to the earlier-middle Iron Age by assemblages containing shouldered and long-necked jars with finger impressed decoration, while saddle querns are present in some numbers (cf Chapman forthcoming c). In contrast, rotary querns are often present in numbers on settlements dating to the late Iron Age, 1st century BC, while saddle querns are no longer present. This alone dates the widespread appearance of the rotary quern to between the 3rd and 2nd centuries BC.

Making this possible connection between the widespread appearance of the rotary quern and the growth in the size of storage jars, it can now be suggested that as the appearance of larger jars began

Table 3.4: Quantification of early-middle Iron Age pottery, Site K

Fabric	Totals		Fabric A: Fine sandy		Fabric B: Coarse sandy		Fabric C: Shelly	
Quantity	Sherds	Weight (g)	Sherds	Weight (g)	Sherds	Weight (g)	Sherds	Weight (g)
Totals	**125**	**1997**	**55**	**633**	**53**	**659**	**17**	**705**
Percentages	-	-	44.0	31.7	42.4	33.0	13.6	35.3
Average sherd	-	16.0g	-	11.5g	-	12.4g	-	41.5g

towards the end of the earlier-middle Iron Age, this would suggest that the more frequent use of the rotary quern may have occurred as early as 300BC, and they were certainly appearing by *c.*250-200 BC, spanning the appearance of the larger storage jars at the earlier-middle to later-middle transition. Rotary querns most probably became very common during the 2nd century BC, when large storage jars, including both plain and scored ware examples, dominate domestic assemblages.

It is unfortunate that no saddle or rotary querns were recovered from the A5-M1 sites, as their presence here together with the long sequence of radiocarbon dates might have made a significant addition to this debate.

THE LATE IRON AGE ASSEMBLAGES (100BC-43AD)

Probably beginning towards the end of the 2nd century BC and continuing into the late Iron Age, 1st century BC, a wider diversity of vessel forms and fabrics began to appear, or perhaps reappear, including high-shouldered bowls and burnished bowls, and the appearance of neatly finished bead rims. The large storage jars continued, but irregular incised scoring was replaced by more regular combed scoring. Large lugs, present in earlier-middle Iron Age assemblages but rare in the later-middle Iron Age, also make a reappearance. Heavy rims and thick-walled body sherds, often in hard well-fired fabrics with oxidised, orange-red surfaces, mark the appearance of a new form of storage jar, which appeared in this area in the later 1st century BC and continued in the early 1st century AD, probably a few decades earlier than their appearance in Northamptonshire.

Having established the analytical parameters for the middle and late Iron Age pottery in the broader region, the following sections describe the individual site assemblages.

EARLIER-MIDDLE IRON AGE PITS AND A PIT CLUSTER, AND LATER BOUNDARIES AT SITE K

A pit cluster and three nearby pits produced nearly 2.0kg of pottery, with the largest groups coming from two storage pits, K[17] and K[95]. The presence of long necked jars suggested a date in the earlier-middle Iron Age, and this was confirmed by a radiocarbon date of 360–170 cal BC (95% confidence, 2180±30BP, Beta-446415) on cereal grains from the fill pit K[51] within the pit cluster.

The pit cluster at Site K (Fig 3.32) is comparable to the pit clusters at Sites D and G that have been largely dated to the early Iron Age, which suggests that the activity at Site K may have been the latest occurrence of settlement defined by pit clusters, and perhaps suggests that the nucleated settlement enclosures and boundaries only appeared in the later-middle Iron Age, perhaps 250BC onward.

DIAGNOSTIC CONTEXT GROUPS FROM SITE K

The largest group, weighing 0.8kg, comes from the fill K[94] of a storage pit K[95]. The group comprises plain body sherds from a storage jar and rims from a plain shouldered jar (Fig 3.48, <P19>) and a shouldered jar with deep fingertip impressions on the rounded rim (Fig 3.48, <P20>).

The fill K[15] of storage pit K[17] produced the second largest assemblage, weighing 0.7kg. The group included a shouldered jar, with an everted flattened rim and shallow fingertip impressions on the deeply concave neck, and a shouldered jar with an upright rounded rim (Fig 3.48, <P21>, left and right). There are also sherds in a uniformly fine grey fabric with smoothed to burnished surfaces, and an unusual vessel in a grey fabric with a smoothed surface, and a neck decorated with an applied cordon forming a sharply undulating or wavy line, with knife trimming along the margins of the cordon (Fig 3.48, <P22>).

The fills of the pit cluster and other pits produced much smaller groups with few diagnostic features, but the material is broadly consistent with the diagnostic groups and it is likely that the pit cluster and the nearby pits were all closely contemporary.

LATE IRON AGE POTTERY FROM SITE K

The linear boundary ditches K[123] and K[144] produced small quantities of pottery, with a late Iron Age date suggested for ditch K[123] as the single sherd recovered contains grog (Fig3.35).

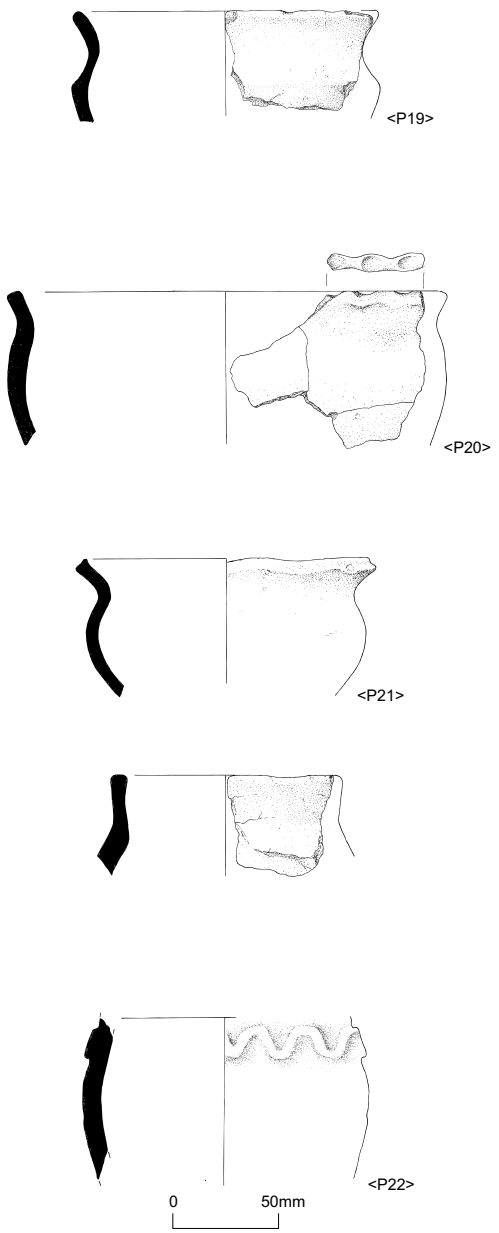


Fig 3.48 Earlier-middle Iron Age pottery, Site K

CATALOGUE OF ILLUSTRATED EARLIER-MIDDLE IRON AGE POTTERY FROM SITE K (FIG 3.48)

<P19> Shouldered and long necked jar, pit K[95]
<P20> Shouldered jar with fingertip impressed rim, pit K[95]
<P21> Two shouldered jars, pit K[17]
<P22> Jar with a wavy applied cordon, pit K[17]

LATER-MIDDLE TO LATE IRON AGE SETTLEMENT AT SITES D AND G

The total later-middle to late Iron Age pottery assemblage from Sites D and G weighs 37.8kg. The pottery from both sites is generally hard and well preserved but is highly fragmented, with an average sherd weight of 11.4g for the fully quantified material. Given the size of the assemblage, for Site G only pottery groups over 150g in weight were fully quantified to fabrics. The smaller groups were assessed and those containing diagnostic material were added to the full quantification. A weight of 27.9kg was fully quantified, forming 73.8% of the total assemblage by weight, with 9.9kg not fully quantified.

SITE G

This assemblage is characterised by the dominance of fine sandy fabrics, containing few larger mineral grains even in thicker walled storage jars, forming 64.2% of the assemblage by sherd and 58.2% by weight. This is in contrast to the dominance of coarse sandy fabrics in the early Iron Age assemblage from pits and pit clusters at Sites D and G, and a near equal presence of fine and coarse fabrics in the earlier-middle Iron Age assemblage from Site K. The dominance of fine fabrics is also seen in the smaller but broadly contemporary assemblage from Site Q.

The smaller proportion of coarse sandy wares occurred largely as thicker walled vessels but includes some smaller jars and bowls with smoothed to burnished surfaces (Table 3.5). Given the absence of any full profiles, the overall vessel form and size can only be estimated from the thickness of the body sherds. It is accepted that this is only broadly reliable as there are many exceptions, particularly smaller vessels with unusually thick walls. Shelly ware, including scored ware jars are present in small numbers, 3.3% by sherd and 4.9% by weight, and probably arrived as a small number of imported vessels, perhaps containing traded goods.

A small quantity of material, 28 sherds (550g), is either in fabrics containing grog, marking the introduction of grogged fabrics probably as imported storage jars in small quantities during the late Iron Age. This is also seen at Site Q where a late pit contained most of a fragmented storage jar with a heavy rim, characteristic of the large thick-walled storage jars that were appearing either at the end of 1st century BC or early in the 1st century AD. This fabric group also includes a few sherds of wheel-finished pottery, some in fabrics containing mica, which are probably intrusive within their recorded contexts and mark the deposition of early Roman pottery into the subsidence hollows above the final fills of Iron Age ditches, although the illustrated example (Fig 3.49, <P24>) is from a small pit.

There is also a small element, 0.9% by sherd and 1.3% by weight, of residual flint-gritted ware of the later-middle Bronze Age, which is probably largely derived from the disturbance of earlier pits.

Table 3.5: Quantification of later-middle to late Iron Age pottery, Site G

Fabrics	Totals		Fabric A: Fine sandy		Fabric B: Coarse sandy		Fabric C: Shelly		Fabric E: LIA/RB		Fabric D: Flint	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	**2440**	**27858**	**1567**	**16220**	**744**	**9350**	**80**	**1363**	**28**	**550**	**21**	**375**
Percentages	-	-	64.2	58.2	30.5	33.6	3.3	4.9	1.1	2.0	0.9	1.3
Average sherd	-	11.4	-	10.4	-	12.6	-	17.0	-	19.6	-	17.9
Unquantified	-	9896	-	-	-	-	-	-	-	-	-	-
Total weight	-	**37754**	-	-	-	-	-	-	-	-	-	-

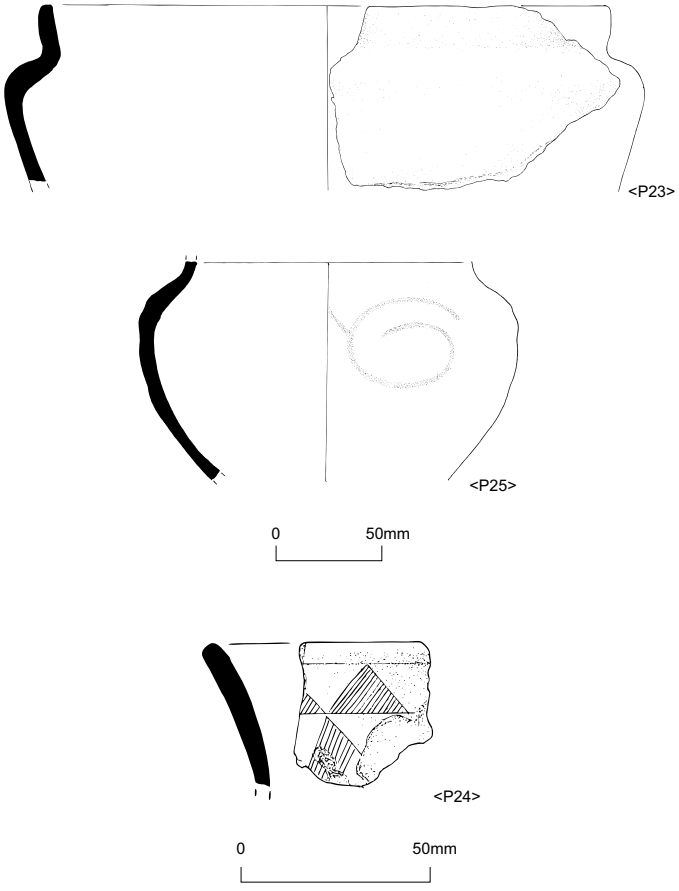


Fig 3.49 Late Iron Age pottery, Site G

The fill of curvilinear gully G[1073] lay within the southern part of GENC5 and contained 1.2kg of mainly thicker sherds in the coarse sandy fabric. This included part of a distinctive high shouldered bowl with an upright flat-topped rim (Fig 3.49, <P23>).

The fill of pit G[1060] in the same location contained sherds in an exceptionally fine sandy fabric containing mica, with the neck decorated with triangles filled with incised cross-hatching (Fig 3.49, <P24>). This pit therefore dates to mid-1st century AD.

The pottery group from the southern terminal of the roundhouse, GRD9, is not particularly large, at 0.56kg, but it does have a distinctive character. All of the vessels are in a fine sandy fabric containing few larger mineral grains, even the single thicker walled storage jar, 14mm thick. This jar and a few other sherds have brown surfaces, but the majority of the assemblage comprises uniformly dark grey fabrics, some with burnished surfaces. In particular, there is a rounded bowl with a burnished surface and a rounded rim, slightly expanded to form a crudely fashioned bead rim. This group can therefore be broadly dated to the later-middle to late Iron Age, although the exceptionally thick storage jar and proto-bead rim suggest a date in the 1st century BC.

DIAGNOSTIC CONTEXT GROUPS FROM SITE G

The northern enclosure and roundhouse

The final fill of ditch G[1820] on the southern arm of GENC5 (Fig 3.36) produced a small assemblage that included sherds from at least two vessels with combed decoration, one in a fabric containing grog. This and the remainder of the assemblage suggest a late Iron Age date for the accumulation of this fill, perhaps beginning in the 1st century BC but no later than the early 1st century AD.

The sections on the southern arm of the ring ditch produced small groups of pottery, some of which is probably dated to the late Iron Age, although there are also coarseware sherds that may be residual early Iron Age pottery.

The eastern boundary ditch

The fill G[1390] of ditch G[1393] is from a recut of the eastern boundary system that contained a small group of thick-walled sherds, grey black throughout in a fine sandy fabric with a burnished surface, which may

come from a burnished globular bowl <P25> dating to the late Iron Age, 1st century BC. A small group of sherds (120g) from fill G[1435] of ditch G[1437], part of the same eastern ditch system, contains a single sherd of classic Midlands scored ware in a shelly fabric, indicating a date in the later-middle Iron Age, perhaps the 2nd century BC when scored ware was at its height of production.

A further length of this boundary, fill G[1494] of ditch G[1496], contained three sherds of shelly ware; one comprising a broad T-shaped flat-topped rim and the other a rim from a larger diameter bowl, thickened internally to a depth of 16mm with a shallow groove along the otherwise slightly rounded rim. The large diameter and the characteristic groove may suggest that this is an example of a large open bowl, perhaps used for dairying, for which a few examples have been identified in Northamptonshire, Milton Keynes, Warwickshire and Bedfordshire (Chapman 2015, 45, fig 2.30, 3 and 2.31, c; Ingham 2010, 91-92, fig 4, P3).

Towards the southern end of this ditch, fill G[2084] of ditch G[2086] included some very thick-walled sherds and large parts of a small short necked shouldered jar in a distinctive grey fine silty sand fabric, quite soft and containing scattered angular mineral inclusions. This vessel may be late Iron Age/early Roman in date, again indicating that the abandoned boundary accumulated its final fill in the earthwork around the mid-1st century AD.

The south-western boundary ditch

A small group from the fill G[2055] of ditch G[2056] includes thick-walled sherds from large jars including a thick rim in shelly ware decorated with bold fingertip impressions. These vessels suggest a date into the early 1st century AD.

The sub-enclosures

From the eastern corner of GENC7 the fill G[1672] of ditch G[1674] contains much of a single small rounded bowl, a fine and soft sandy fabric, with a grey core light brown to light surfaces, and an everted rounded rim, 120mm in diameter, above a short concave neck, and a flat base of 87mm diameter. This vessel is not highly diagnostic, but a broad middle Iron Age date is suggested. A small group from the northern corner of this enclosure comprises body sherds in fine grey fabrics, some burnished indicating a later-middle to late Iron Age date, 2nd–1st centuries BC.

At the intersection with the eastern boundary ditch the assemblages from fills G[1745] and G[1746] of the latest ditch cut G[1747] are mixed, suggesting some residuality or mixing of contexts where later ditches cut across a much earlier pit cluster. There are abraded coarse sandy vessels with orange surfaces, including a large lug from fill G[1746] that appear to belong in the early and earlier-middle Iron Age. Some fine sandy grey burnished body sherds are of the later-middle Iron Age. A high shouldered jar containing grog and the rim from a thin-walled fineware wheel-finished vessel decorated with neatly incised triangles, with alternate triangles filled with incised lines, from the surface fill, G[1745], are of late Iron Age/early Roman date indicating post-abandonment accumulations in the mid-1st century AD.

The southernmost of the two small enclosures abutting the eastern boundary produced small groups of pottery. From fill G[1886] at the northern corner an assemblage weighing 0.54kg contains at least three vessels with dark grey surfaces and upright rims. There is also a perforated base in the same fabric, with a white encrustation over the interior and within the perforations. Such vessels are most common in late Iron Age assemblages. There is also a body sherd with a scar from a lost lug and some small coarseware sherds that may be residual pottery of the early Iron Age. The southern entrance terminal was cut by pit G[1941] with fill G[1940] containing vessels with burnished surfaces and simple upright rims, either with no neck or a very short neck, suggesting a late Iron Age date.

At the junction of the two eastern sub-enclosures with the eastern boundary, fill G[1901] of ditch G[1903], there are joining sherds from the body of a classic scored ware jar in a coarse sandy fabric, indicating a date in the later-middle Iron Age. Nearby, fill G[1904] produced a very thick-walled body sherd, 13mm thick, in a fine sandy fabric, which is probably from a large storage jar of the late 1st century BC–early 1st century AD.

The western L-shaped ditch, GD4

The fill G[1604] of ditch G[1606] lay within a north-westward extension of the main settlement area that produced an upright rounded rim with deeply-incised scoring running right to the rim. The careful execution of the scoring and the presence of sherds from a grey vessel with a burnished surface, suggests that this context can be dated to the later-middle to late Iron Age, possibly in the 2nd century BC but perhaps more likely the 1st century BC.

Miscellaneous ditches

Ditch G[1752] contained a mixed group. A single body sherd in a sandy fabric with a lightly scored surface, and rim sherds from two vessels with dark grey burnished surfaces, both have flat-topped rims, one expanded internally and the other externally. A later-middle to late Iron Age date is suggested.

Ditch G[1773] contained the flat base of a dark grey burnished bowl, and ditch G[1775] contained a small group that included several sherds of a shelly ware scored ware jar with dark surfaces, suggesting a date in the later-middle Iron Age.

The curvilinear gullies, GENC8 and GRD10

The shallow gullies of these ditch systems contained a number of primary deposits, which included fragmented but substantial portions of single vessels, including a number of scored ware storage jars. There is also part of a globular bowl with curvilinear decoration. The presence of these vessels supports the idea that the complex gully system to the north had surrounded a domestic roundhouse.

From the fill G[2201] of ditch G[2203] there is 1.3kg of pottery. Much of this forms 45% of the base and part of the lower body of large scored ware jar, with walls 9mm thick. The flat base, 144mm in diameter and 17mm thick, is unusual in having a rounded projection, 15mm high and projecting 6mm beyond the body. The sandy fabric and the inner surface is grey-brown and the outer surface is orange-brown with the characteristic irregular scoring running roughly vertically in sweeping non-parallel curves. A number of the fracture lines were along slab joins, which show overlaps of up to 25mm. From the same deposit there are also sherds from a plain grey-brown bowl with a smoothed surface.

Further west along the same curvilinear system, the primary fill G[2184] of ditch G[2185] contained a larger sherd from a globular shouldered jar in a coarse sandy fabric with red smoothed surfaces, with eroded curvilinear decoration forming a spiral motif, probably half of a double spiral (Fig 3.49, <P25>). This can be dated to the late Iron Age, 1st century BC. The secondary fill G[2183] of this ditch contained 1.73kg of highly fragmented pottery from at least two scored ware storage jars, one with a light buff external surface and the other a grey surface. Both have flat rims decorated with oblique incised lines, probably fingernail impressed.

The scored ware jars are all likely to date to the later-middle to late Iron Age, but the presence of both a grey-brown globular bowl with a smoothed surface and a vessel with curvilinear decoration suggests that the final filling of this ditch occurred in the late Iron Age, 1st century BC.

From the fill G[2125] of ditch G[2126] at the eastern terminal of one of several curvilinear gullies, possibly forming the southern arm of a roundhouse ring ditch, there is a small assemblage (180g), largely comprising sherds from a plain burnished globular jar with a bead rim, dating to the late Iron Age, 1st century BC. A little west of this terminal, fill G[2446] of ditch G[2447] also contained sherds from a similar or the same globular jar.

The south-western ditch systems

The pottery from this area tends to comprise very mixed assemblages, typically highly fragmented, and concentrated in the final fills of the ditches. The secondary deposition of this fragmented material probably occurred within an episode or episodes of surface clearance of soils containing occupation debris. As a proportion of the assemblage dates to the 1st century AD, it is possible that the act of clearance was associated with the abandonment and levelling of the settlement at this time.

The fills from ditch terminal G[2064] lay at the eastern end of the major L-shaped ditch, GD4, which contained 820g of pottery dominated by sherds uniformly grey and sometimes burnished, suggesting a date in the late Iron Age, 1st century BC.

From ditch G[2423] there is a thick heavy T-shaped jar rim with deep oblique finger impressions along both edges, in a shelly fabric, which comes from a large storage jar that is probably early 1st century AD in date.

The fill of ditch G[2314], forming the westernmost terminal of this ditch system contained only a small assemblage but this included a sherd of scored ware and an abraded sherd with an orange surface with a remnant of cross-hatched scoring, which suggests a late Iron Age date, 1st century BC. A pit cutting this ditch produced a small group including a large lug in a grey fine sandy fabric.

The fill of ditch G[2079] at the southern terminal of the smaller U-shaped ditch forming GRD8 contained a mixed assemblage but included a sherd of scored ware, two very thick body sherds and sherds from a small vessel in a soft fabric containing mica, with the latter elements suggesting a late Iron Age date within the early 1st century AD. The fill G[2305] at the centre of this ditch was also a mixed assemblage, but again there are sherds in a soft fabric containing mica which are likely to be of a late date. These include a grey flat-topped rim sherd with shallow depressions in the rim and remnants of scoring on the body and globular jar with a pale orange surface and an everted rounded rim. Extensive filling and recutting took place along this boundary in the late Iron Age, and consequently residuality is high in the latest deposits.

Pit G[2342] contained a small assemblage (150g), which includes a bowl with a sharply angled shoulder, a concave neck and a rounded rim, in a highly burnished uniformly dark grey fabric, containing fine pellets

of grog, This probably dates to the late Iron Age, and is one of the few vessels containing grog that is not a thick-walled storage jar.

CATALOGUE OF ILLUSTRATED LATE IRON AGE POTTERY FROM SITE G (FIG 3.49)

<P23> High shouldered bowl in a coarse sandy fabric, gully G[1073]
<P24> Fine ware decorated with triangles filled with incised cross-hatching, pit G[1060]
<P25> Globular bowl with smoothed surface and faint curvilinear decoration, ditch G[2185]

LATER-MIDDLE AND LATE IRON AGE LINEAR DITCH SYSTEMS AND ENCLOSURE AT SITE D

The linear ditch systems to the south-west and south-east produced very small groups in sandy fabrics, but the presence of two large portions from shelly vessels in two contexts, ditches D[1177] and D[1184], has skewed the overall quantifications by weight (Table 3.6). In this instance, the quantification by sherd number would be a truer representation by fabric, with fine sandy fabrics dominating, at 50.9%, as they do at Site G, followed by coarse sandy fabrics and with shelly wares the least common.

Unfortunately, this small assemblage contains no sherds diagnostic of form or decoration to enable a specific date to be suggested, although the general character suggests it is likely to be broadly contemporary with the Late Iron Age enclosure system at nearby Site G.

DIAGNOSTIC CONTEXT GROUPS FROM SITE D

The two sections across the ditched enclosure to the north produced only small groups of abraded pottery, typically weighing only tens of grams, with the largest group comprising 25 sherds (280g) from fill D[1176] of curvilinear ditch D[1177]. These small groups span the same range of fabrics as the early Iron Age assemblage but possess no diagnostic features to ascertain their date more closely.

IRON AGE POTTERY FROM OTHER SITES
BY ANDY CHAPMAN

Small groups of pottery from other sites, often from single features and largely undiagnostic of date, were examined at the assessment stage and have not been subject to further analysis.

From pit B[103] there is a single base sherd (20g) in a sandy fabric, grey throughout, of probable Iron Age date. This was found during the general watching brief on the UKPN cable route to the east of Site H.

Site L produced a single fragmented sherd (4g) from a suspected palaeochannel. The sherd has a sandy fabric, grey throughout, and is broadly Iron Age in date.

At Site N, slightly to the north-east of Chalton Cross Farm, ditch N[15] produced a residual sherd containing angular flint, orange throughout, which is of later-middle Bronze Age date, and three plain body sherds in a grey sandy fabric that are probably Iron Age in date.

In the fill of ditch P[245] at Site P there were numerous small sherds and crumbs of grey-brown sandy fabric including a flat-topped rim sherd, indicating a broadly Iron Age date.

A small group of medieval contexts from Site F produced residual prehistoric pottery, with a total weight of 222g. The fabrics include angular flint, dated to the middle–late Bronze Age, sandy wares of broadly Iron Age origin and a sherd of shelly scored ware in a fabric containing grog, most likely to date to the late Iron Age, 1st century BC.

THE MIDDLE TO LATE IRON AGE ASSEMBLAGES AND DOMESTIC USE

The assemblages from these sites are closely comparable to assemblages across the region. The later-middle Iron Age assemblages are dominated by coarse storage jars, and it has been argued that regionally the dominance of the storage jar and a perceived increase in size by around 250-200BC may have been related to the rapid

Table 3.6: Quantification of the later-middle to late Iron Age pottery, Site D

Fabrics	**Total**		**Fabric A: Fine sandy**		**Fabric B: Coarse sandy**		**Fabric C: Shelly**		**Fabric D: Flint**	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	**57**	**586**	**29**	**165**	**14**	**94**	**10**	**290**	**4**	**37**
Percentages	-	-	50.9	28.2	24.6	16.0	17.5	49.5	7.0	6.3
Average sherd	-	10.3	**-**	5.7	-	6.7	-	29.0	-	9.3

uptake of the rotary quern as an efficient means of milling grain with a consequent need for storing larger quantities of grain within the domestic roundhouse. During this period finer wares appear to be less common, and it is only in the late Iron Age, no doubt as part of a growing indirect influence of Roman habits, rapidly approaching from the south, which led to an expansion of finer wares, particularly burnished bowl forms, as tableware, and a wider range of vessels for use in the kitchen such a large open bowls for dairy production complemented by jars with perforated bases for cheese production. The continuing importance of grain within the diet is seen in an new generation of even larger storage jars, now well made, in oxidised fabrics with heavy rims, and probably also set in the house floor as the earlier forms has often been. These changes were pre-cursors to the explosion of new forms and fabrics and vessel-types that came with kiln firing from the early 1st century AD onward.

Registered Iron Age finds

by Tora Hylton and Ian Riddler

There were 16 registered finds from Sites D and G; 12 of these were recovered from the Iron Age farmstead (Site G), while the remaining four were located within the fills of ditches and pits to the south-east (Site D). From Charlton Cross Farm (Site K) there are two Iron Age finds from the bell-shaped storage pits; a ceramic bead <C1> and an antler weaving comb. The assemblage includes tools representing craft activities, items for personal use and some general iron work.

The finds are quantified by area and functional category as outline in Table 3.7.

Table 3.7: Quantification of registered Iron Age finds by functional category, Sites D, G and K

Functional category	Site		
	D	G	K
Personal possessions			
Costume and jewellery	1	2	1
Personal possessions and amulets	-	1	1
Equipment and furnishings			
Building equipment, general ironwork	-	1	-
Bone/antler tools	1	5	-
Iron tools, punch/awl	1	-	-
Ceramic weight	-	1	-
Stone weight	-	1	-
Miscellaneous/unidentified			
Iron	1	1	-
Totals	**4**	**12**	**2**

Personal possessions

These are small portable items from clothing and adornments such as costume fittings or jewellery, and include personal items such as trinkets or amulets.

Brooch

A La Tène Type I brooch <Fe9> was recovered from an outlying pit on the south-west edge of Site D. The brooch is made from a single piece of iron wire that has been twisted to form the pin, spring, bow, catch plate and foot. Brooches of this type date to *c.*400–200BC. Two small annular beads (not illust) are *c.*7mm in diameter and 2–3mm high from Site G, they include an undecorated bead in cobalt blue glass <G52> from later-middle Iron Age ditch G[2064] representing Guido Group 7 (1978) and an extremely decayed amber bead from pit G[1730].

The bead has been manufactured from natural clay and fired to a dull brown/red hue. It is rounded-biconical in form with a central perforation that is 21mm in diameter and 13mm high. Two similar clay beads were recovered from the excavations at Danebury (Poole 1984, fig 7.44, 7.16, 7.17).

<Fe9> La Tène Type I brooch, iron. Incomplete, part of spring and pin missing. Bilateral spring (four coils/external chord), arched bow and rounded cross-section. The foot is formed from the lower end of the catch plate which has been bent upwards to almost meet the bow; it terminates in an expanded knop that tapers to a point; 70mm long, pit D[1227]. (Fig 3.50).

<C1> Bead, clay. Rounded-biconical in form with a central perforation, 21mm in diameter, 13mm high, 3mm wide perforation, Pit K[17], earlier-middle Iron Age. (Fig 3.50).

Perforated canine

A complete canine tooth of a dog/wolf, <A35>, has been neatly perforated through its centre; it is otherwise unmodified. Perforated canine teeth have a long ancestry extending back at least to the early Bronze Age in England, where they have been found in both burial and settlement contexts (Thomas 1954, 315-7; Annable and Simpson 1964, 27-8, 316-20). The main distinction of perforated canine teeth lies in the location of the perforation. The impressive group of dog, horse and deer teeth from late Bronze Age contexts at Potterne in Wiltshire are all pierced towards one end (Seager Smith 2000, 228 and fig 93.56-65). Iron Age examples, including four from Glastonbury Lake Village, Somerset, were listed by Bulleid and St George Gray (1917, 482-5). These are largely, but not invariably, pierced at the centre of the object. One of the largest collections is from Meare

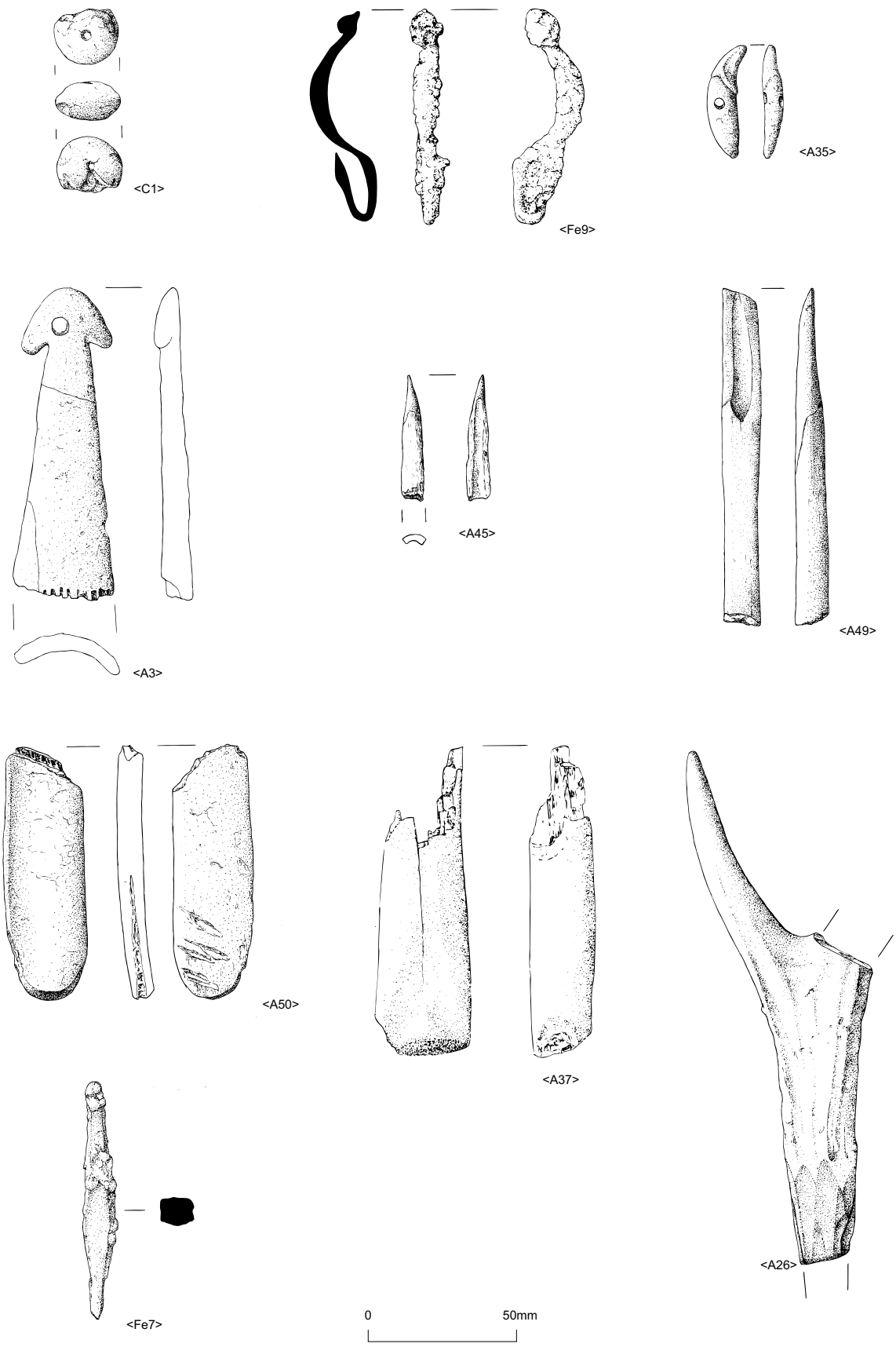


Fig 3.50 Illustrated registered Iron Age finds

Village East, Somerset, and includes both categories (Coles 1987, 154-5). Iron Age example from sites in the western part of East Anglia, include Aldwick, Edix Hill and Harston Mill (Cra'ster 1961, 34 and pl VIIIf; Malim 1998, fig 21.11; Crummy 2016, 59-61, fig 3.25.6). These have teeth in both groups. The choice of location may reflect the manner in which they were worn, either suspended from a cord or threaded through the centre as a component of a necklace. Meaney has noted that the teeth of wolves and dogs are recorded in Roman and Anglo-Saxon sources as curing ailments related to teething and quartan fever; and 'the largest teeth of wolves could give a horse unwearied power of speed' (Meaney 1981, 134). Canine incisors are a prominent characteristic of their muzzles and they have been proposed as amulets against tooth decay, or as a means of equating the owner with some of the characteristics of the animal (Dijkman and Ervynck 1998, 73).

<A35> Complete canine tooth of dog/wolf, including the root, slightly sinuous in section and tapering to rounded terminals at either end. Unmodified except for a neatly drilled perforation at the centre. Polished throughout, ditch G[2262], late Iron Age. (Fig 3.50).

ANTLER WEAVING COMB

A fragmentary antler comb <A3> survives in degraded condition and lacks all of its teeth. The original form of the comb is apparent although there is no longer any trace of decoration. The comb has a rounded terminal with barbed projections descending to either side and it bears some resemblance, if only in broad terms, to Tuohy's type T (Tuohy 1999, I, fig 1). In reality, however, it is a form that is unparalleled amidst the corpus of Iron Age combs of antler and bone. There were originally four teeth per centimetre with 13 teeth in total. This places the comb in Tuohy's category of fine teeth; combs with ten or more teeth and an average width of 1mm (Tuohy 1999, I, 17). A suspension hole has been neatly drilled at the head, a little off centre.

Prehistoric combs are dominated by assemblages from south-western sites, including Danebury, Glastonbury Lake Village, Maiden Castle and the Meare Lake Villages. Contemporary combs from Eastern England have only been found in small numbers, and they are less well known. The distribution of sites where they have been discovered clusters around Cambridge (Tuohy 1999, II, fig 2). The circular form of terminal, Tuohy's type D, tends to be the most common form for combs in this area (Riddler 2016). In this case the comb appears to be undecorated, although this is not absolutely certain, but it is a possible indication of its date. At Danebury, undecorated combs came from the earliest phases of occupation and the two late Bronze Age combs from Potterne are also undecorated (Sellwood 1984b, 372-3; Seager Smith 2000, 228 and fig 92.45-6). Likewise, combs from the earlier phases at Gussage All Saints, Wiltshire, are undecorated, whilst those from the later phases are decorated (Wainwright 1979, 113-21). Iron Age combs of antler or bone are generally regarded as weaving combs, used either for starting borders on a warp weighted loom or in the manufacture of braids (Sellwood 1984b, 378; Tuohy 1999, I, 57-9).

<A3> A fragmentary antler comb with only the stubs of the teeth remaining. The outer surface is degraded, with faint traces of decoration visible, including a lateral incised line set above the teeth. The apex of the comb is barbed with tapering lobes set to either side of the main body. A drilled perforation for suspension has been placed off centre in the upper area. The sides of the comb widen steadily towards the lower end, where the comb is curved in section, with cortile tissue visible on the inner surface. There were originally four teeth per centimetre. Pit K[95]. (Fig 3.50).

GENERAL IRONWORK

With the exception of two undiagnostic iron sheet fragments, there is a single binding strip from Site G. The binding strip <Fe44> is manufactured from a parallel sided strip with terminals forged almost at right angles, one clenched terminal survives that is 20mm long and 55mm wide. The binding strip is similar to examples recovered from Danebury (Sellwood 1984a, fig 7.22, 2.157) and it is possible that it was used as a staple to bind timbers like the joiners dogs illustrated by Manning (1985, Plate 61, 52-53).

TOOLS

There is a small but interesting collection of bone/antler and one iron tool. Four worked bone tools and one antler tool were recovered from features in the vicinity of the farmstead (Site G), and one worked bone and one iron tool were retrieved from the surrounding field systems (Site D). The assemblage includes a splinter awl <A45> possibly for leather working, two small pointed blades <A8> <A49>, a rib blade <A50> possibly for burnishing, a handle <A37>, and an antler working surface <A26>. There is one iron awl/punch for leather or metal working, <Fe14>.

SPLINTER AWL

A complete splinter awl <A45> has been cut from the mid-shaft of a caprine-sized long bone and trimmed at one end to form a sharp point. Splinter awls are defined by the use of fractured segments of bone mid-shafts as their raw material (Sellwood 1984b, 387). They include a sharp, tapered point at one end and have

been roughly separated from the remainder of the mid-shaft at the other end, with the edges trimmed. They consist of a part of just one side of the bone mid-shaft. Splinter awls occur in late Bronze Age contexts, as at Eldon's Seat, Encombe (Cunliffe and Phillipson 1968, pl V), and are a common feature of early and middle Iron Age assemblages, occurring at Linton, Trumpington and Wakerley, amongst other sites (Fell 1953, fig 2.6; Riddler in prep, a; Jackson and Ambrose 1978, fig 62.80).

The two key characteristics of the object type are the sharp point of the circular section and the relatively small size of the implement as a whole. Splinter awls from East Anglian contexts range in length from 43–79mm and have mostly been cut from the long bones of caprines. They sit well in the hand and are appropriate for delicate work, conceivably involving the piercing and marking of soft materials, including leather, textile, basketry or unfired ceramics (Olsen 2003, 108).

<A45> Complete bone splinter awl, cut from the mid-shaft of a caprine sized long bone, roughly trimmed along the edges and fractured at one end. Neatly tapered to a sharp point at the opposite end. Highly polished around the point, with some polish also on the exterior surface. Ditch G[2446], late Iron Age. (Fig 3.50).

Small pointed blades

Two examples of small pointed blades have been cut from different bones, both from caprines. One is fragmentary with a square section and stems from a metatarsus, <A8>, whilst the more complete blade utilises the lower part of a tibia <A49>. Objects of this general type have often been described as gouges (Sellwood 1984b, 382) and the less interpretive term was adopted by Britnell (2000a, 183) and is used here. They consist of blades cut from caprine-sized long bones, usually the metatarsus and the tibia, sometimes retaining the articulation of the end of the bone, which can be perforated laterally. The mid-shaft of the bone has generally been smoothed and a diagonal slice cut along it forms a broad point. Small pointed blades represent one of the most common forms of bone implement of the Iron Age and can also be seen amidst late Bronze Age assemblages from Potterne (Seager Smith 2000, fig 90.10-15). Various typologies have been provided, usually based on the bone type (Bulleid and Gray 1917, 419-21; Cunnington 1923, 82; Wheeler 1943, 303-4; Britnell 2000a, 183). Attempts have been made to provide a scheme that concentrates on the form of the object and wear patterns, but the end result still comes down to bone type (Sellwood 1984b, 387). Britnell has distinguished five principal types that also examines whether the basal part of the object has been cut from the proximal or distal end of the bone (Britnell 2000a, 183). Where objects are fragmentary, it is not always possible to assign them to these types, but it can be done with both of these implements.

The smaller fragment belongs to the type with the basal end formed from the proximal articulation of the metatarsus, and the larger piece had the basal part cut from the distal end of a tibia. Within East Anglia, these are the two most common types of small pointed blade.

<A49> Fragment of a small pointed blade, cut from the lower mid-shaft of a caprine tibia. The basal part of the object has fractured away, leaving part of the mid-shaft, of oval section, with a sliced terminal, lightly concave in section. The tip of the sliced terminal is also missing. The object survives in good condition with longitudinal smoothing lines visible, as well as a series of lateral rasp marks on one side. Ditch G[2267], late Iron Age. (Fig 3.50).

<A8> Fragment of the front part of a small pointed blade, cut from the mid-shaft of a caprine metatarsus. The bone has been neatly trimmed to a square section and sliced diagonally to provide a rounded terminal with part of the inner bone channel visible. The outer surface survives in degraded condition and the object has fractured just beyond the terminal. Layer D[1213], DPC2, early Iron Age

Rib blade

A fragmentary rib blade <A50> was cut from a section of cattle-sized rib and trimmed to a rounded terminal at one end. Five diagonal blade incisions lie on one side, close to the terminal. These are a feature of some rib blades, including an example from Meare Village East (Coles 1987, fig 3.6.B76). They have been regarded as butchery marks, rather than part of the bone working process (Bulleid and Gray 1917, 432). The object type consists of sections of ribs, rounded at one end, with little further modification that come from late Bronze Age and early/middle Iron Age contexts (Cunliffe and Phillipson 1968, 225 and pl Va; Seager Smith 2000, 228 and fig 91; Riddler 2013, 57-8; Britnell 2000b, 255). Intriguingly, they are absent from most of the larger assemblages of worked antler and bone objects in England, including Danebury, Glastonbury Lake Village, Maiden Castle and Meare Lake Village West. There is a single example from Meare Lake Village East. They were found at the early Iron Age site of All Cannings Cross, Wiltshire (Cunnington 1923, 24). In part, their absence from these sites may reflect their dating, which is based around the late Bronze Age and the earlier part of the Iron Age. Equally, it may be a consequence of their function as they are thought to have been used as spatulas or as burnishers in pottery production and are very well suited to working with clay (Britnell 2000b, 255; Riddler 2013, 58). Accordingly, they may only

occur in those areas of sites that lie in proximity to the production of ceramics or ceramic objects.

<A50> A fragmentary rib blade, fractured at one end and trimmed with a blade to form a neat, rounded terminal at the opposite end. Five diagonal blade incisions can be seen close to the rounded terminal on one side. Slightly degraded surface but traces of polish, probably from handling, on both sides. Ditch G[2399], later-middle Iron Age. (Fig 3.50).

HANDLE

A fragmentary bone handle was elegantly produced from the upper part of the mid-shaft of a horse metacarpus. The proximal articulation of the bone was removed and the surface of the bone is smoothed. Bone handles are comparatively rare finds from the Iron Age. Handles occur in both antler and bone at this time, but antler is more common. At Potterne there were sixteen handles made of antler and six from bone (Seager Smith 2000, 228 and fig 94). At a number of sites, including Cadbury Castle, Danebury and Glastonbury Lake Village, all of the handles are made of antler. The source species of bone for a handle from Longbridge Deverill Cow Down, Wiltshire, is not specified but appears to be from a horse metacarpus (Chadwick Hawks and Hawkes 2012, 187 and fig 4.4.1). In general, horse bones were not commonly utilised in Iron Age bone working, although they were occasionally adopted for handles and for large pointed blades, including an example from Stotfold, Bedfordshire (Allen and Webley 2007, 83 and Fig 3.12.2).

<A37> Fragment of a bone handle, cut from the proximal end of a horse metacarpus, with the articulation removed, probably with the aid of a blade. The bone has a D-shaped section and is highly polished, with traces of light burning in one area. The handle has fractured; there are no traces of any staining from the tang of an iron implement. Ditch G[2415], later-middle Iron Age. (Fig 3.50).

ANTLER WORKING SURFACE

A segment of the lower part of a roe deer antler was heavily modified, with the burr and the accompanying coronet entirely removed, along with the beam above the first tine. The antler surface is smooth and narrow around the burr. The intention at this point was to produce a distinctive and familiar form of slotted antler handle, and the first part of the slot was cut into the lower part of the antler. Slotted antler handles were usually made from roe deer antlers, although some have been produced from the crowns of red deer antlers. Britnell (2000c, 231) described them as forked handles and this refers to the retention of part of the beam and a separate small tine at the upper part of the implement. In this form, with a slot at the base, they were attached to iron blades. However, in this case the antler split along the beam as the slot was being cut, and rather than being discarded it was kept as an offcut. Subsequently, the beam was sawn cleanly away above the first tine and the antler was adapted for use as a working surface. It retains a series of over thirty indentations on one side, close to the sawn end of the beam, with a further twelve indentations on the other side. These have all been made with a sharp implement of square section, almost certainly an iron awl.

Both bone and antler working surfaces are attested in Iron Age contexts. At Meare Village East, Wiltshire, they include an indented antler hammer head and the lower part of a red deer antler with indentations, knife marks and drill holes (Coles 1987, figs 3.25.H5 and H34). At Salford, Bedfordshire, they consist of a cattle mandible and a horse scapula (Duncan and Mackreth 2005, 126 and Fig 3.11.58-9). Indentations made by a point of square or triangular section are a conspicuous feature of these working surfaces, which Duncan noted similar to the tips of leatherworking awls (*ibid*, 126).

<A26> A section of roe deer antler crown, including one complete tine and the stub of a second tine; the tine was neatly sawn away and perforated to 6mm deep at the centre. The lower part of the crown stem was trimmed and faceted by knife and a lateral slot was cut into it, 18mm deep. The antler has split on both sides beyond this slot. Below the tine stub on one side are numerous puncture marks, mostly from the tip of an implement with a square-sectioned point. A small number of similar marks are present at the equivalent location on the other side. The antler is lightly polished throughout. Pit G[1874], early Iron Age. (Fig 3.50).

IRON AWL/PUNCH

A single iron awl/punch <Fe7> was recovered from a ditch on the south-east edge of Site D. It is short and stubby, 79mm long, and has a broad square cross-section, 8x8mm thick, with short tapered terminals. The pointed terminal is worn to a circular cross-section. Similar examples from Danebury were identified as possible punches for heavy duty leatherworking or metalworking (Sellwood 1984a, fig 7.13, 265).

<Fe7> Awl/punch, iron. Square sectioned shank with expanded central section, 8x8mm, tapered terminals, one displays signs of wear and has a circular cross-section. Length, 79mm. Pit D[1199], late Iron Age. (Fig 3.50).

Miscellanea

Eight abraded fragments of fired clay (235.8g) were recovered from the terminal of a ring ditch, G[2022], later-middle Iron Age. One fragment retains the vestige of a perforation positioned obliquely across the corner, indicating that they originate from a triangular weight of Danebury Type 1 (Poole 1984, 403). The weight was handmade from poorly fired clay, the fabric is fine and soft with a powdery surface, and the exterior surface is pale grey and the core dark grey. Potential uses are discussed by Poole (*ibid* 1984, 406), principally as a loomweight for the manufacture of textiles.

A large perforated limestone disc was recovered as a residual find from medieval features at Site G. The disc is incomplete; 75% on one side has sheared off and what remains weighs *c.*122.2g. The disc is 85mm in diameter and has a central hole, 15mm wide, and although much of the wall is missing, enough survives to suggest that the perforation was countersunk. Similar large chalk discs have been recovered from Danebury (1984).

Metalworking debris

by Andy Chapman

From layer D[1213] above the earlier-middle Iron Age pit clusters there is small fragment (10g) from a crucible used in lost wax copper alloy casting.

The body of the fabric is pale grey, 6mm thick. The outer surface is coated with a black vitreous, 3–4mm thick, with further rounded vesicular blobs of vitreous material attached to the outer surface.

Wood charcoal

by Imogen van Bergen-Poole

During selection of charcoal for radiocarbon dating of the storage pits from Site K the presence of box (*Buxus*) was noted in a context otherwise dated by earlier-middle Iron Age pottery. As this is traditionally thought to have been introduced by the Romans, a more detailed examination of the charcoal was undertaken. The flots comprised mainly a mix of domestic material (shell, small seeds, sand grains etc.) but included charcoalified material and some woody fragments, <4mm thick. The charcoalified wood remains are quantified in Table 3.8. Familial classification follows that of the Angiosperm Phylogeny Group (APG 2009). The anatomy of oak is very similar to that of chestnut when fragment diameters are so small as not to reveal the differentiating ray characteristics.

Table 3.8: Quantification of early-middle Iron Age wood charcoal, Site K

Type	Identification	Common name	Total
K[95] (92) pit	*Corylus*	hazel	1
	Rhamnus	buckthorn	1
	Quercus	oak	2
	?Quercus	probable oak	4
	?Maloideae	hawthorn etc.	1
	dicot	unidentifiable	6
K[95] (93) pit	*Quercus*	oak	5
	?Buxus	possible box	1
	small roundwood	unidentifiable	1
	dicot	unidentifiable	10
K[95] (94) pit	Prunus	probable blackthorn	10
	?Prunus	possible blackthorn	3
	Ulmus	elm	4
	?Ulmus	possible elm	3
	Quercus	oak	13
	?Quercus	probable oak	1
	Maloideae	hawthorn etc.	10
	?Maloideae	probable hawthorn etc.	5
	small roundwood	unidentifiable	1
	dicot	unidentifiable	35
K[17] (13) pit	*?Quercus*	probable oak	1
	?Ulmus	possible elm	1
	dicot	unidentifiable	9
K[17] (15) pit	*Maloideae*	hawthorn etc.	14
	?Quercus/Castanea	possibly oak or chestnut	8
	Prunus	probable blackthorn	3
	?Ulmus	possible elm	5
	dicot	unidentifiable	27

Results

Preservation in all fragments was generally good with most fragments exhibiting well preserved anatomy and good reflectivity such that size, rather than preservation, was the hindrance to identification. Some fragments had been subject to relatively high temperatures, >500°C (see Braadbaart and Poole 2008).

Hazel, oak, *Prunus* (probably Blackthorn) and Maloideae (crab apple, hawthorn etc.), elm, possible buckthorn and possible box were identified. Two fragments were selected for radiocarbon dating. From pit K[17] probable Blackthorn charcoal provided a date in the earlier-

middle Iron Age, 360–170 cal BC (95% confidence, 2180±30, Beta-458339; Table 3.16). A similar date for pit K[95] came from hazel nutshell; 350–295/230–220/210–105 cal BC (95% confidence, 2150±30, Beta-446416).

The material is almost entirely derived from domestic waste, possibly from a midden; other finds include pottery, animal bone, an antler weaving comb and a clay bead. Seven different taxa were identified in the charcoal, which were also identified from other plant remains in the contemporary Site K pit cluster nearby. All taxa listed are native to Britain except for sweet chestnut and box. The two species are generally considered to be non-native to the British flora since the appearance of both taxa is often interpreted as their introduction by the Romans (see Rackham, 1990, van der Veen *et al.* 2008). This is probably true for sweet chestnut but data for box is more contentious when pollen samples are considered.

Buxus has been identified from palynological samples in England dating back to 8000–6000BP (late Mesolithic) and 4000–2000 BP (Bronze Age) (Bartley & Morgan 1990; Di Domenico *et al.* 2012). However, *Buxus* has very small vessels, small scalariform perforation plates with few bars, abundant spirals and thick walled ground tissue. The latter is not clearly seen in this fragment that would confirm its identity and whilst it remains uncertain the taxa with closest anatomical similarity that are listed in Table 3.9 are equally interesting finds in earlier-middle Iron Age Britain (see Hather 2000).

The possible buckthorn (*Rhamnus*) is distinctive in its vessel distribution, simple perforation plates and abundant spirals. The inability to check the rays in clear longitudinal section prevents a definitive identification. Gale and Cutler (2000) state that to date there are no archaeological records of *Rhamnus,* and so its note here is significant. However, this taxon is known to be native in the British flora having been first recorded from the Mesolithic and wood, stems, fruits and charcoal have been identified from Mesolithic to Iron Age (Clarke *et al.* 1935, Phillips 1935, Godwin 1975, Keepax 1988). *Rhamnus* is able to colonise a wide variety of habitats and light conditions (Kurylo *et al*. 2007).

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS
BY VAL FRYER

Samples were taken from features within the main Iron Age settlement at Site G, with additional samples coming from pits, ditches and discrete layers in the adjacent area (Site D) and from two bell-shaped storage pits (Site K). Significant assemblages are quantified in Table 3.10. Quantification of significant Iron Age flots from Sites G and K, which are fairly typical of the crops cultivated in southern Iron Age Britain. Features at both of the latter sites appeared somewhat isolated within the landscape. Evidence from elsewhere within the British Isles suggest that storage pits were frequently situated close to centres of domestic and/or agricultural activity. Pit clusters at Site K contained little apart from occasional charcoal fragments and further work was not undertaken.

The assemblages from all sites are mostly 0.1 litres or less in volume, and although plant macrofossils are recorded, preservation is generally poor, with many

Table 3.9: Comparison of the anatomical characters similar to *Buxus*

Distinguishing characteristics	**Sample examined**	***Buxus***	***Viburnum***	***Cornus***	***Maloideae***	***Ligustrum***	***Lonicera***
Common name	?box	box	-	dogwood	hawthorn etc.	privet	*honeysuckle*
Diffuse porous	✓	✓	✓	✓	✓	✓/✗	✓
Solitary vessels	✓	✓	✓	✓	✓	✓	✓/✗
Vessels <50 um	✓	✓	✗	✗	✗	✓/✗	✗
Thick walled ground tissue	?	✓	-	±	✓	✓	±
Ray width (no. cells)	1-2	(1-)2	1-3	1, 3-7	2-3	1-2(-3)	1-3(-4)
Ray height (no.cells)	5	6-12	5-15	5-50	5-15	10-20	8-15
Sheath cells	✗	✗	✓	✓/✗	✗	✗	✓
Heterogenous rays	✓	✓	✓	✓	✓/✗	✓	✓
Fibre tracheids	✓	✓	✓	✓	✓	✓	✓
Spiral thickenings	✗	✗	✓/✗	✗	(✓)	✓	✓
Scalariform perforation plates (no. bars)	✓ (7)	✓ (5-12)	✓ **(± 25)**	✓ **(± 20)**	✗ -	✗ -	✗/ (✓) -

Table 3.10: Quantification of significant Iron Age flots, Sites G and K

	Context	G[1174]	G[1298]	G[1323]	G[1344]	G[1353]	K[95]
	Feature type	Pit	Pit	Posthole	Ditch	Ditch	Pit
Type	**Common name**						
Cereals and other potential crops							
Avena sp. (grains)	Oat	72	2cf	2	29	16	2cf
(awn frags.)		120	-	2	-	-	-
A.fatua L. (floret frag.)	Wild oat	1cffg	-	-	-	-	-
Hordeum sp. (grains)	Barley	100	4+2cf	20	98	64	-
(rachis nodes)		4	-	-	4	-	-
Secale cereale L. (grains)	Rye	2cf	2+2cf	-	-	1cf	-
Triticum sp. (grains)	Wheat	708	24	238	918	512	2
(?gristed grain)		1cf	-	-	-	-	-
(glume bases)		-	-	-	-	-	1
(spikelet bases)			3	-	-	-	-
(rachis internodes)		36	-	2	4+8cf	4	-
(rachis node frags.)		32	-	-	-	4	-
T. aestivum/compactum type	Bread wheat						
(rachis nodes)		148	-	2	436	8	-
T. dicoccum Schübl. (glume bases)	Emmer	-	2cf	-	-	-	-
T. spelta L. (glume bases)	Spelt	-	1	-	-	-	6
T. turgidum type	Rivet wheat						
(rachis nodes)		12+1cf	-	-	-	-	-
Cereal indet. (grains)		324	-	72	241	304	6
(basal rachis nodes)		-	1	-	4	-	1
(detached embryos)		4	-	-	-	-	-
Vicia faba L.	Field bean	-	-	2	1cf	-	-
Large Fabaceae indet.		-	2cotyfg	-	-	-	-
Herbs							
Anisantha sterilis (L.)Nevski	Barren brome	2cffg	-	-	-	-	-
Anthemis cotula L.	Stinking mayweed	36	-	2	12	4	-
Apiaceae indet.		-	-	-	-	-	1cf
Arrhenatherum sp. (tuber)	Onion-couch	-	-	-	-	-	1
Atriplex sp.	Orache	4	-	-	-	-	4
Brassicaceae indet.		4	1cf	-	-	8	1
Bromus sp.	Brome	20	-	1cf	-	-	4fg
Caryophyllaceae indet.		-	-	-	1	-	1cf
Centaurea sp.	Cornflower	-	-	-	1fg	-	2+1cf
Chenopodium album L.	Fat hen	-	-	-	4	-	-
Chenopodiaceae indet.		-	-	-	-	12	4
Cirsium sp.	Thistle	4	-	-	-	-	-
Euphrasia/Odontites sp.	Eyebright/Bartsia	4	-	-	-	-	-
Small Fabaceae indet.	Small legumes	24+124coty	2+13coty	6+14coty	8+44coty	32+60coty	1+4coty
Fallopia convolvulus (L.)A.Love	Black bindweed	8+12tf	-	-	4	-	5+4tf
Fumaria officinalis L.	Fumitory	-	-	-	-	-	2+1cf
Galeopsis sp.	Hemp nettle	1cf	-	-	-	-	-
Galium aparine L.	Goosegrass	16	2+1fg	2	8+4fg	4	13+16fg
G. mollugo type	Bedstraw	-	-	-	4	-	-
Hyoscyamus niger L	Henbane	-	-	-	-	-	1
Lamiaceae indet.		1cf	-	-	-	-	3
Lapsana communis L.	Nipplewort	8	-	-	1cffg	-	1
Leontodon sp.	Hawkbit	4	-	-	-	-	-
Lithospermum arvense L.	Corn gromwell	-	-	-	-	-	4+1fg

Context		G[1174]	G[1298]	G[1323]	G[1344]	G[1353]	K[95]
Feature type		Pit	Pit	Posthole	Ditch	Ditch	Pit
Type	**Common name**						
Medicago/Trifolium/Lotus sp.	Medick/clover/ trefoil		-	-	-	1cf	2
Plantago lanceolata L.	Ribwort plantain	4+1cf	-	-	-	-	-
Small Poaceae indet.	Grasses	52	1	-	-	8	1
Large Poaceae indet.		8	-	-	20	4	1
Polygonum aviculare L.	Knotgrass	-	-	-	8	-	3+1cf
Polygonaceae indet.		-	-	2	-	4	15
Prunella vulgaris L.	Self-heal	-	-	-	-	-	1cf
Ranunculus sp.	Buttercup	-	-	-	4	-	-
R. acris/repens/bulbosus		-	-	*2*	-	-	-
Raphanus raphanistrum L.	Wild radish						
(siliqua frags.)		1cf	-	-	-	-	-
Rumex sp.	Dock	12	-	-	16	-	5
Scandix pecten-veneris L.	Shepherd's needle	-	-	1cffg	-	-	-
Sherardia arvensis L.	Field madder	4+1cf	-	-	-	4	1
Silene sp.	Campion	16	-	-	20	-	-
Urtica dioica L.	Stinging nettle	1cf	-	2	-	-	-
U. urens L.	Annual nettle	-	-	2	-	-	-
Wetland plants							
Carex sp.	Sedge	-	-	-	8	8	5
Eleocharis sp.	Spike-rush	4	-	-	4	-	6
Tree/shrub macrofossils							
Corylus avellana L.	Hazel	-	-	-	8fg	-	-
Crataegus sp.	Hawthorn	-	-	-	12	-	-
Prunus sp.	Sloe type	-	-	-	8fg	-	-
Quercus sp.	Oak						
(cupule + imm. fruit)		1cffg	-	-	-	-	-
Rosa sp.	Wild rose	-	-	-	4	-	-
Sambucus nigra L.	Elderberry	4	-	-	-	-	-
Other plant macrofossils							
Charcoal <2mm		xxxx	xxxx	xxxx	xxxx	xxxx	xxx
Charcoal >2mm		x	xxxx	xxxx	xxxx	xxxx	xx
Charcoal >5mm		-	x	xxxx	xxx	xx	xx
Charcoal >10mm		x	x	xx	xx	x	x
Charred root/stem		x	x	xx	-	x	-
Indet. buds		-	-	2	-	-	-
Indet. capsule frags.		-	-	-	12	-	-
Indet. culm nodes		20fg	-	2	2	12	1
Indet. seeds		100	1	4	12	4	9
Indet. thorns (*Prunus* sp. type)		-	-	-	-	4	-
Other remains							
Black porous and tarry material		xxxx	x	-	x	xxxx	xx
Bone		xb	-	-	-	-	x
Charred organic material		-	x	-	-	-	-
Eggshell		x xb	-	-	x	xb	-
Small mammal/amphibian bones		x xb	x	-	x	x	xx xxb

	Context	G[1174]	G[1298]	G[1323]	G[1344]	G[1353]	K[95]
	Feature type	Pit	Pit	Posthole	Ditch	Ditch	Pit
Type	**Common name**						
Mollusc shells							
Zonitidae indet.		-	-	-	-	-	2b
Helicella itala		-	-	-	-	-	5b
Vallonia sp.		-	-	-	-	-	12b
V. costata		-	-	-	-	-	1cfb
V. pulchella		-	-	-	-	-	9cfb
Vertigo pygmaea		-	-	-	-	-	6b
Trichia hispida group		-	-	-	-	-	1b
Sample volume							
Volume of flot (litres)		0.2	<0.1	0.1	0.2	0.2	<0.1
% flot sorted		100%	100%	100%	100%	100%	100%

x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens, xxxx = 100+ specimens, + = present
cf = compare, fg = fragment, tf = testa fragment, b = burnt, coty = cotyledon

of the cereals being severely puffed and distorted, probably as a result of combustion at extremely high temperatures. In addition, some materials appear very worn and abraded; possibly indicating that they were exposed to weathering for some considerable period prior to incorporation within the features.

Oats, barley, rye and wheat grains are noted, with wheat being predominant in most instances. Of the wheat grains, most are of a rounded hexaploid type form with the highest concentrations of these cereals from features that are largely divorced from the Site G settlement focus. Occasional elongated 'drop' form grains are noted within pit and ditch fills closer to the settlement along with both emmer and spelt glume bases, but the density of material is surprisingly low. Spelt is also recorded within storage pit K[95]. Other wheat chaff occurs very infrequently. However, the assemblage from ditch G[1344] has a moderate density of bread wheat rachis nodes with diagnostic crescentic glume inserts, and the assemblage from pit G[1174] includes a small number of rivet wheat type rachis nodes with typical persistent glume bases. Given the context, the latter is highly suspect, as rivet wheat is rarely noted within contexts pre-dating the 11th century AD and is a post-Conquest introduction to Britain. Several radiocarbon dates were obtained as part of a project specific attempt to support the chronology of diagnostic Iron Age pottery forms. Not all of these were successful and all of those that used charred wheat grains instead of charcoal or animal bone, returned dates corroborating 12th-century cultivation. The larger part of the cereal evidence is therefore thought to be intrusive as a by-product of deep ridge and furrow cultivation across Sites D and G, and subsequent post-depositional bioturbation. This contributes to the understanding of medieval settlement at Thorn (see Chapter 7), but poses problems for the interpretation of the Iron Age settlement.

Ditch G[1344] and pit G[1174] were also both at the north-eastern limit of the excavated area, very close to Thorn Farm at the site of the overbridge, and is purportedly situated on the edge of a shrunken medieval village. Features in this area were also predominantly medieval in date and most are intrusive. Of the barley grains, most are too poorly preserved for close identification, a possible asymmetrical lateral grain of a six-row variety is present within the assemblage from ditch G[2022]. Similarly the oats do not retain diagnostic features, although a single possible floret fragment of a wild oat with what appears to be part of a 'sucker-mouth' basal abscission scar, is present within the assemblage from pit G[1174]. Although the oats, barley and rye grains, along with the occasional seeds/cotyledon fragments of large pulses, including field beans, indicate that a variety of crops were being grown in the surrounding fields, it would appear most likely that the local clay soils were best suited to the production of wheat. In most instances the other cereals and crop plant remains are derived from weeds and/or contaminants, perhaps through crop rotation or post-harvest storage and processing. Much of the material is probably medieval.

Although seeds of a number of segetal weeds and grassland herbs are recorded, the density of material is generally very low. The greatest diversity of species occurs within earlier-middle Iron Age storage pit K[95], although many seeds are present as single specimens within the assemblage. Taxa most frequently found are stinking mayweed, orache, brome, small legumes, black bindweed, goosegrass, corn gromwell, small grasses, knotgrass, dock and campion. Given the contexts from which the material was recovered, the occurrence of the stinking mayweed seeds is of note as it is a plant most commonly found on damp clay soils that certainly posed very particular problems for the later prehistoric farmers, as the earlier ard or scratch plough could not adequately cultivate such heavy land. These contexts

are almost certainly contaminated and seeds of this particular plant are rarely seen in contexts which pre-date the introduction of the heavier Roman plough or later coulter ploughs. The assemblage from ditch G[1344] is potentially of interest, as assuming that at least some of the recovered material is derived from the immediate environs, it would appear that the ditch was damp or wet, supporting both sedge and spike-rushes and was possibly either overgrown or situated adjacent to a scrubland including hazel, hawthorn, blackthorn and wild rose. Such an assemblage could be derived from burning of material as a means of cleansing and/or maintenance.

Fragments of charcoal and/or charred wood are present throughout, although in most instances, the material is highly comminuted and abraded. Other plant macrofossils occur less frequently, including small pieces of charred root or stem and indeterminate buds, capsule fragments, culm nodes and thorns.

The fragments of black porous and tarry material, which occur at varying densities within most of the assemblages, are all thought to be residues of the combustion of organic remains including cereal grains at extremely high temperatures. The material from ditch G[1351] has been burnt at such a high temperature that much of the material is concreted together in a tarry mass. Although bone fragments are recorded within a number of the assemblages studied, it remains unclear whether the material is derived from domestic dietary refuse or from butchery waste. Burnt bone in the flots from Site G suggests a certain amount of waste disposal in this manner was common. However, the fragments from the flots are mostly small and abraded and this material, along with small pieces of eggshell, is principally derived from domestic midden waste. Other remains are scarce.

Early and earlier-middle Iron Age pit clusters at Sites D and G and K were sampled, although the purpose of the pits remains unclear. At all three sites there is little or no evidence to suggest that any refuse was being disposed of in a systematic fashion, and it appears far more likely that the waste material from both domestic and agricultural sources were dumped onto middens, which remained in use for a considerable period of time before being deposited within these pits.

The assemblages from the main Iron Age settlement focus of Site G are surprisingly sparse, with most appearing to be derived from a very low density of scattered detritus, much of which was probably accidentally incorporated within the features. The same also appears true for the earlier-middle Iron Age material from pit K[17]. The later-middle and late Iron Age ditches at Site D probably formed a series of field systems with very sparse wind-blown accumulations.

Most detritus was kept well away from the principal buildings, presumably as a means of minimising both nuisance and accidental fires. The paucity of grain appears a little unusual, as in one form or another; cereals were a staple of the Iron Age diet. Even if the occupants were principally engaged with the raising and subsequent slaughtering and processing of livestock, grain would still have been traded in or grown on a smaller scale both for food and for fodder. It is unclear whether the few cereals which are not medieval contaminants were imported to the sites from elsewhere as small batches of ready processed grain, or whether locally grown grain was processed as needed. Evidence for both practices was recorded from near contemporary sites at Stansted (Murphy 1990) and Loves Farm, St Neots (Fryer in prep), both of which were situated on clay soils.

The condition of the material from pit K[95] is of note, as although macrofossils are scarce, many of those recorded have a collapsed or concave appearance, probably suggesting that they had germinated prior to being burnt. Evidence from other similar storage pits recorded within the British Isles (see van der Veen 2007) and from experimental sites at, for example, Butser (Reynolds 1974) has shown that materials stored closest to the walls of these bell-shaped pits were prone to germination, forming a thick protective skin. As the pit was emptied, this skin would be burnt out, thereby drying the pit and eliminating any destructive pests prior to its re-use. It is, therefore, tentatively suggested that the assemblage from pit K[95] may be derived from such a cleansing process.

Faunal remains

by Rebecca Gordon

The main Iron Age animal bone assemblages are from Sites G, D and M, and the majority is from the later-middle and late Iron Age settlement at Site G with some significant early Iron Age assemblages recovered from pit clusters at Site D.

Site G

The animal bone from Site G is in good to fair condition. The instances of carnivore gnawing are high compared to the other assemblages. In the later-middle Iron Age and late Iron Age, 21% of the post-cranial bones exhibit carnivore gnawing. Fragmentation is generally high with many loose teeth compared to those found within mandibles and there are very few complete bones. Butchery evidence is largely observed on the late Iron Age remains, which make up 9% of the total post-cranial elements. Cattle have the majority of the butchery marks, which is not surprising as larger animals need further dismemberment to fit into a cooking pot. The butchery evidence of cattle is typically

of dismemberment, mainly cut marks on or around the joint surfaces or shaft. Cut marks are on horn cores and mandibles suggesting that hides were collected. One cattle mandible has cut marks on the diastema from removal of the cheek muscle. There are four horse elements with butchery marks from late Iron Age contexts. Sheep/goat butchery is limited, however, the butchery evidence is largely similar to cattle. Evidence of burning is limited to sieved flots; only four hand collected bones are burnt, calcined or singed. One sheep/goat first phalanx from ditch G[2415] has signs of being partially digested by an animal.

EARLY IRON AGE

Ninety-six bones are identified to species; cattle, sheep/goat, pig, horse and dog (Table 3.11). Eighty-four animal bone fragments were recovered from pit G[1506], G[1511] and G[1512], which appear to be from domestic refuse. The proportion of cattle and sheep/goat is roughly similar; however, the sample size is low so this observation should be considered cautiously. The assemblage is too small to study the body part representation; however, cranial, forelimbs and hind limbs are present for cattle and sheep/goat. A partially complete dog skull is from pit G[1506]; a canine, premolar, axis and mandibular fragments from dogs came from pits, G[1511] and G[1512],. There is a single tooth from a horse. Based on fusion and tooth wear data for cattle and sheep/goat, these derive from skeletally mature animals. Juvenile cattle, sheep/goat and pig bones are also present, which imply they were all bred close to the site.

EARLIER-MIDDLE IRON AGE

The earlier-middle Iron Age assemblage has 176 bone fragments. The species are similar to those recovered from earlier deposits, indicating little change in the husbandry and dietary practices (Table 3.12). Cattle and sheep/goat constitute the majority of remains (Fig 3.51). Based on the percentage MNI, there is a higher proportion of sheep/goat compared to cattle. However, this result may have been affected by the number of sheep/goat tibia, which is a denser element with a higher survival rate. Other species include pig, dog and horse, with amphibian and mouse bones from sieved samples. There are a high proportion of horse bones among the disarticulated remains. Although small, the body part data is better represented for cattle and sheep/goat, which has a range of cranial, fore limbs and hind limbs. For sheep/goat, the phalanges are absent, which is a sign of recovery bias. Cranial elements are only present for pig, perhaps because pig cranial bones tend to survive better than post-cranial elements. Also, because they are mostly consumed as juvenile their bones are more prone to post-depositional destruction. Cattle and sheep/goat were slaughtered after they had reached skeletal maturity. There is one juvenile cattle radius, which is calf-sized. The tooth wear data for sheep/goat could suggest that animals reared for meat and secondary products were present on site, although the sample size is too small to be certain (Fig 3.52;

Table 3.11: Hand collected identifiable late Bronze/early Iron Age specimens, Site G

Species	NISP	%
Cattle (Bos taurus)	34	35.4
Sheep/goat (Ovis/Capra)	36	37.5
Sheep (Ovis aries)	3	3.1
Pig (Sus scrofa)	11	11.5
Equid (Equus sp.)	1	1.0
Dog (Canis familaris)	11	11.5
Total	**96**	-

Table 3.12: Hand collected and sieved early-middle Iron Age specimens, Site G

Species	Hand collected	Sieved
Cattle (*Bos taurus*)	68	3
Sheep/goat (*Ovis/Capra*)	47	12
Sheep (*Ovis aries*)	4	2
Pig (*Sus scrofa*)	7	1
Equid (*Equus* sp.)	26	1
Dog (*Canis familaris*)	3	0
Amphibian	0	1
Mouse	0	1
Total	**155**	**21**

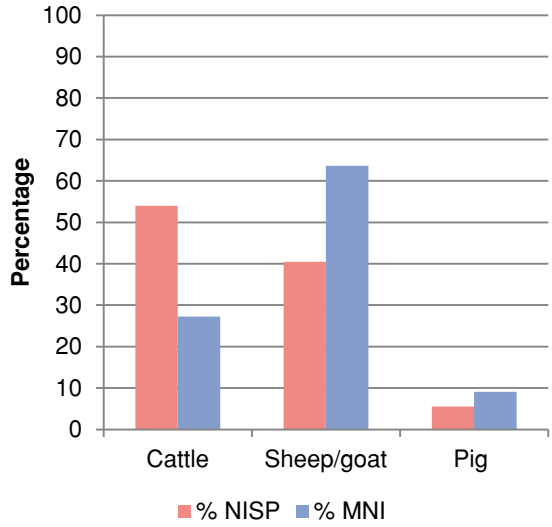


Fig 3.51 NISP and MNI % of the main domesticates for the earlier-middle Iron Age, Site G

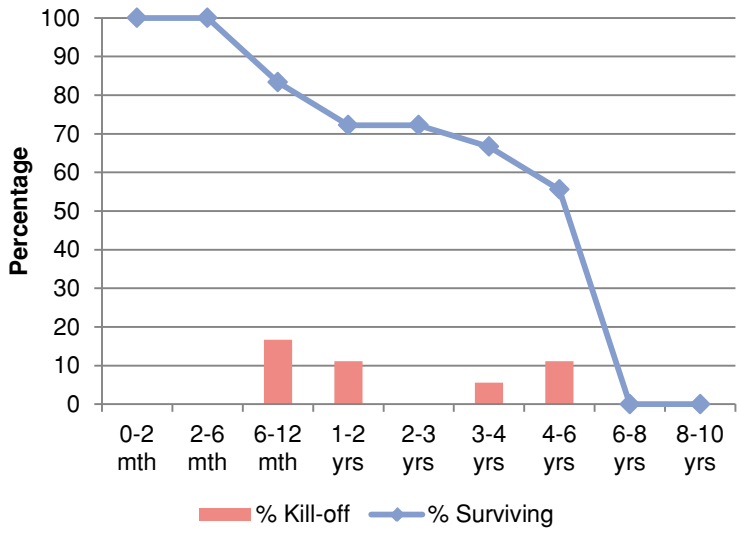


Fig 3.52 Earlier-middle Iron Age; tooth wear data for sheep/goat mandibles and loose teeth, Site G (n=8)

Hambleton 1999). The ageing data for pig is too small to comment. Bone was deposited fairly evenly in pits and ditches, there is no obvious difference in the types of species disposed of in each feature type, except that horse bones were mainly present in the ditches.

Later-middle Iron Age

A total of 501 fragments are from later-middle Iron Age features. The species are comparable to earlier assemblages (Table 3.13). There is a slight difference in the proportion of sheep/goat to pig bones where the latter appears to have increased (Fig 3.53). Small rodent bones from mice and voles are noted. The body part data for cattle and sheep/goat represents whole carcasses, suggesting slaughter nearby (Fig 3.54). There are a few differences between species; cattle have fewer cranial elements than sheep/goat and sheep/goat have fewer post-cranial elements compared to cattle. Pig elements are under-represented but the data suggests complete carcasses are present. Again, pig cranial elements are more common. The tooth wear data for cattle implies a husbandry strategy that utilised mature animals and was geared towards secondary uses for traction and dairy, with surplus animals culled for meat (Fig 3.55). The presence of juvenile animals, 1–8 months old, suggests milk production and/or breeding on site. For sheep/goat, the occurrence of animals between the ages of 1–3 years indicates a stronger emphasis on meat production (Fig 3.56). However, the cull of animals at 4–6 years shows that there was also a focus on milk and wool. The limited ageing data for pigs suggest that meat was the primary focus. There are two cattle third molars that are missing a hypoconulid (the posterior cusp). This is a congenital trait that is dominant within a particular gene pool; therefore, its occurrence suggests a lack of genetic diversity in the breeding stock as a result of crossbreeding (Davis 1997, 425; Thomas 2005b, 74). Six pig canines are from two females and four males; a ratio of 2:4, however, it should be noted that female canines are smaller and therefore are subject to collection biases. The vast majority of the remains are from ditches. The central enclosure, GENC3, and the enclosure on the south-east boundary, GENC2, had the largest bone groups of cattle, sheep/goat, a few pig and horse remains. The ditch of GENC2 had a mix of cattle skull fragments and limb bones, possibly mixed butchery and domestic waste. The ditch around roundhouse GRD6 also had a small concentration of horn core and foot bones, characteristic of butchery and hide processing.

Table 3.13: Hand collected and sieved later-middle Iron Age specimens, Site G

Species	Hand collected	Sieved
Cattle (*Bos taurus*)	243	9
Sheep/goat (*Ovis/Capra*)	112	20
Sheep (*Ovis aries*)	12	6
Pig (*Sus scrofa*)	36	2
Equid (*Equus* sp.)	44	2
Dog (*Canis familaris*)	6	1
Mouse	0	2
Vole	0	1
Small rodent	0	5
Total	**453**	**48**

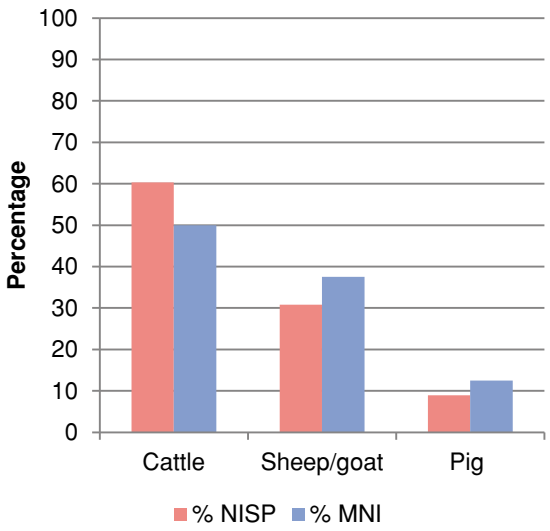


Fig 3.53 %NISP and MNI of the main domesticates for the later-middle Iron Age, Site G

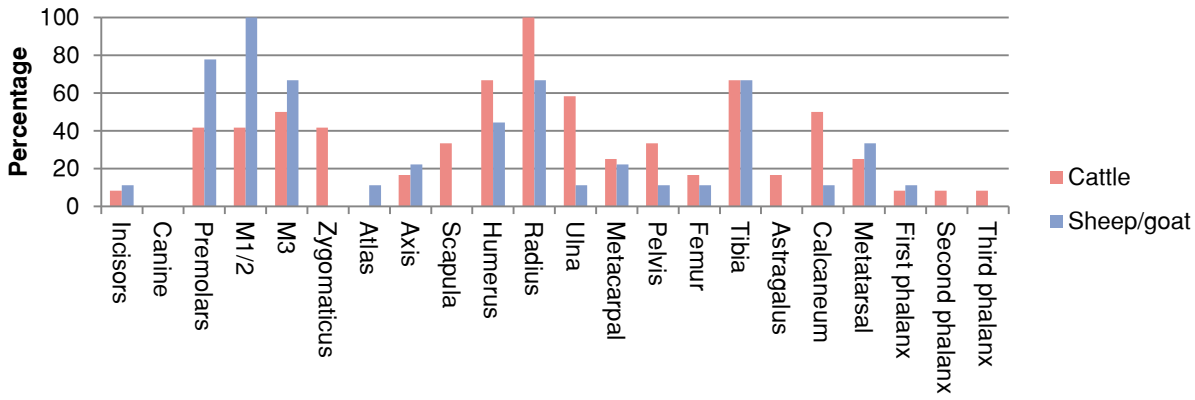


Fig 3.54 Percentage body part representation for the later-middle Iron Age, Site G

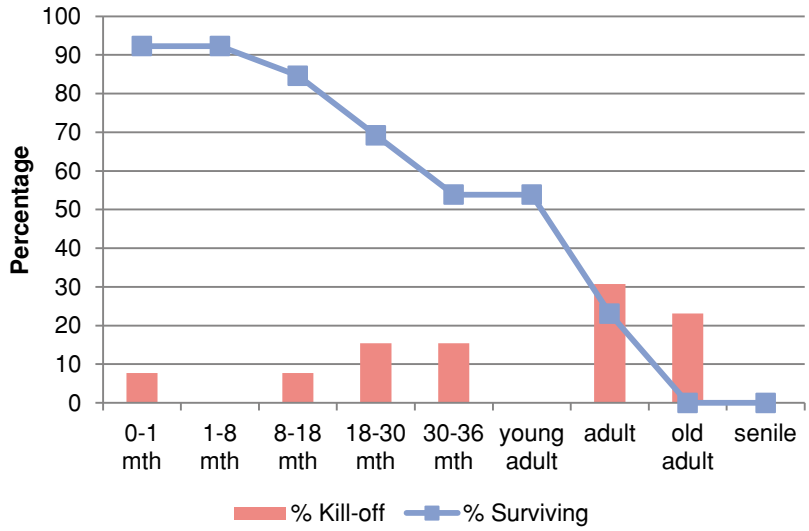


Fig 3.55 Later-middle Iron Age; tooth wear data for cattle mandibles and loose teeth, Site G (n=13)

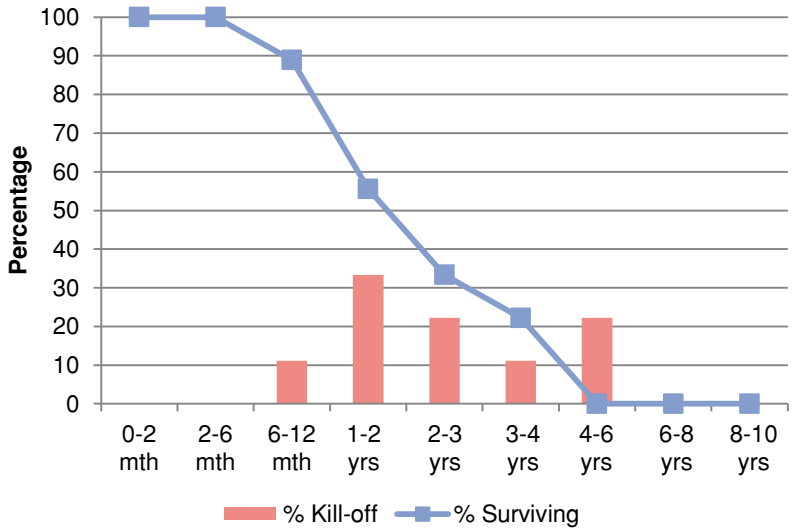


Fig 3.56 Later-middle Iron Age; tooth wear data for sheep/goat mandibles and loose teeth, Site G (n=18)

LATE IRON AGE

The late Iron Age features produced 546 remains. Domesticated species are prevalent (Table 3.14). Cattle and sheep/goat were the primary meat source and pig contributed very little to the diet (Fig 3.57). Other animals include horse and dog. The body part data for cattle and sheep/goat show that complete carcasses were slaughtered and butchered close to the site (Fig 3.58). For both species, cranial elements are particularly frequent due to the high level of fragmentation. There are a high proportion of cattle metapodials; however, the frequency of phalanges is low. This may be because metapodials are a dense element and therefore survive better. The dearth in phalanges may reflect poor recovery on site. In comparison to cattle, sheep/goat metapodials, pelvis and femur are not as well represented. Body part data for pig is too sparse to interpret, however, cranial elements, fore limbs and hind limbs are all present.

For cattle, 76% of middle fusing bones are fused, which suggests they were at least 2–3 years of age when they were culled, and 65% of late fusing bones are fused, so that over half were at least 3.5–4 years old at death (Fig 3.59). This demonstrates that the majority of cattle were slaughtered once they had reached skeletal maturity, and infers they were kept for their secondary products. This pattern is in keeping with the tooth wear data for a larger proportion of cattle, culled at an older age (Fig 3.60). Slaughter profiles for cattle at Fairfield Park have similar results with a significant number of older animals (Holmes 2007a, 111). Sheep/goat reveal a slightly different pattern, which indicates an equal reliance on rearing these animals for meat as well as their secondary products (Fig 3.59). The epiphyseal fusion data shows that neonatal animals are present and that 41% of the middle fusing bones are fused; over half were younger than 3 years old. However, it should be noted that the sample size of middle fusing bones is small, and may have skewed the results. The sample size for the later fusing bones is also poor, which could account for the notable increase of animals over four years of age. The tooth wear data for sheep/goat provides a more reliable picture of the slaughter profile, which reveals that both younger and older animals are present (Fig 3.61). No animals appear to have survived beyond 6 years of age but most of these animals produced at least several coats of wool and a good deal of milk before they were culled.

Table 3.14 Hand collected and sieved late Iron Age specimens, Site G

Species	Hand collected	Sieved
Cattle (*Bos taurus*)	215	2
Sheep/goat (*Ovis/Capra*)	174	13
Sheep (*Ovis aries*)	37	2
Pig (*Sus scrofa*)	27	6
Equid (*Equus* sp.)	61	0
Dog (*Canis familaris*)	7	2
Total	**521**	**25**

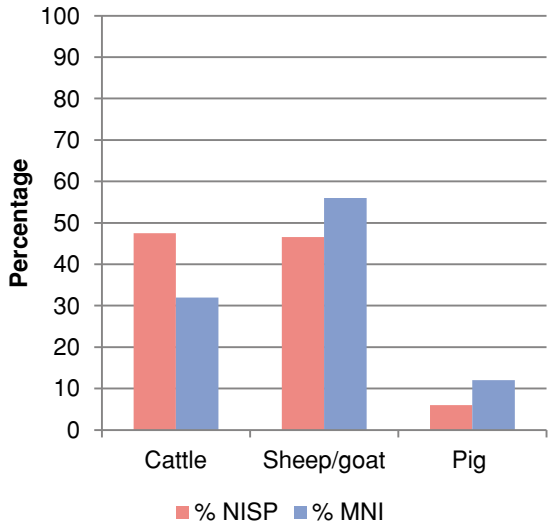


Fig 3.57 NISP and MNI % of the main domesticates for the late Iron Age, Site G

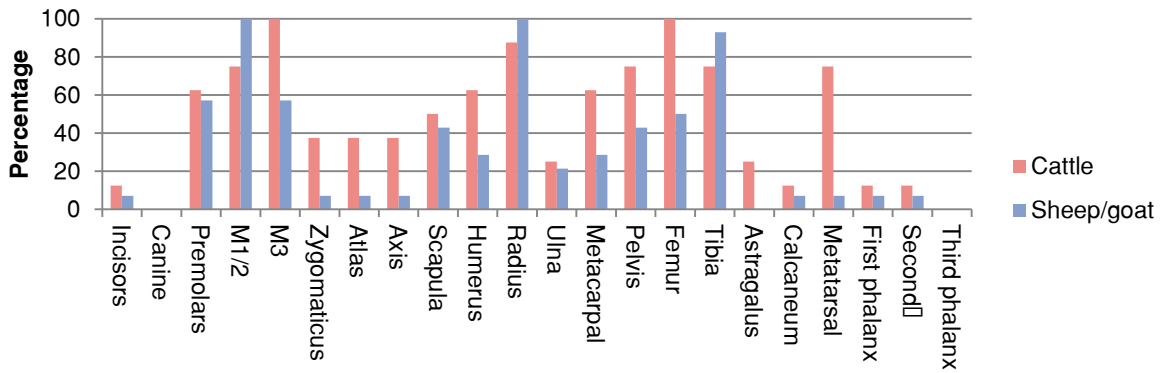


Fig 3.58 Percentage body part representation for the late Iron Age, Site G

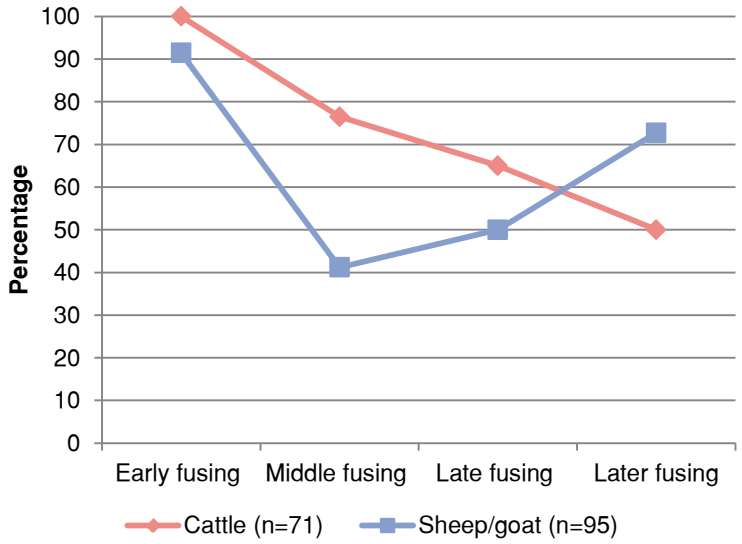


Fig 3.59 Epiphyseal fusion data for cattle and sheep/goat from the late Iron Age, Site G

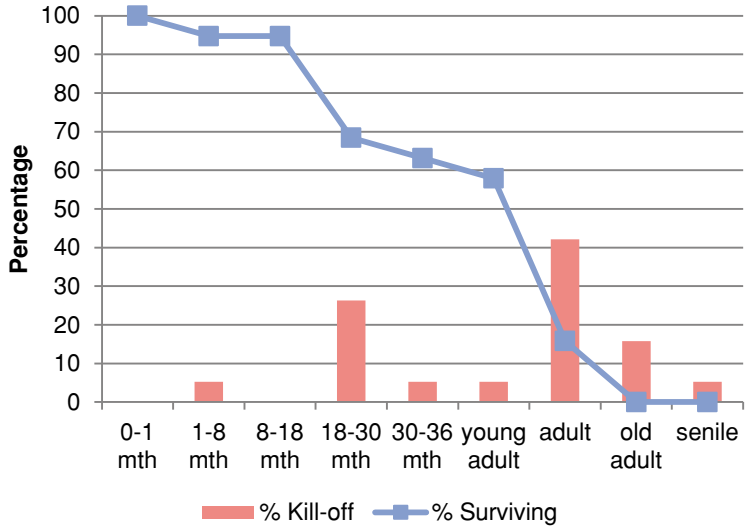


Fig 3.60 Late Iron Age; tooth wear data for cattle mandibles and loose teeth, Site G (n=18)

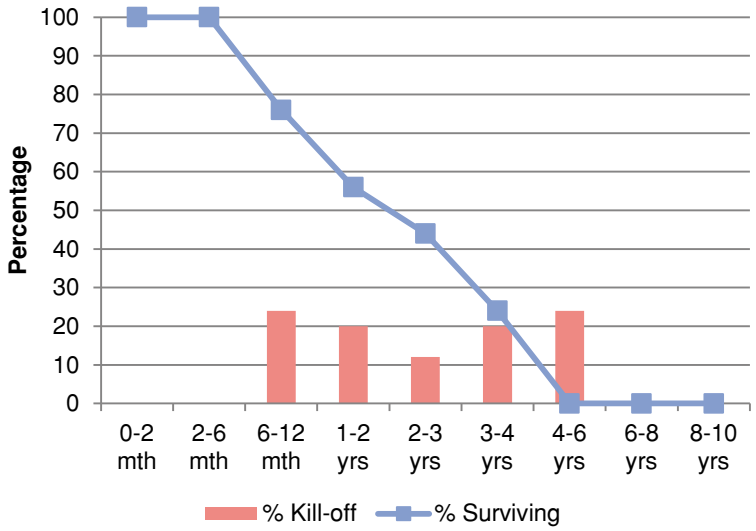


Fig 3.61 Late Iron Age; tooth wear data for sheep/goat mandibles and loose teeth, Site G (n=18)

Fig 3.62 Infectious arthritis on a cattle femur: caudal view (top), medial view (bottom)

Pit G[2422] had two neonatal/juvenile bones from a sheep/goat. The epiphyseal data for pig was too small to provide information on their slaughter profiles. There are three pig teeth; one was 2–7 months and two were 14–21 months at death.

Four pig mandibles are male; there is one female cattle pelvis and one female sheep/goat pelvis. One cattle femur has advanced infectious arthritis around the femoral head (Fig 3.62). There is evidence of eburnation and extensive wear on the articular surface as a result of continual bone on bone polishing between the femoral head and pelvis acetabulum.

Most of the faunal remains are from the late Iron Age ditches, which consisted of a mix of butchery and food waste. Roundhouse GRD10 had a number of cattle skull fragments, mandibles and cervical vertebrae, which could indicate waste from primary butchery and enclosure GENC8 appeared to have more sheep/goat (42) than cattle remains (27). The few remains that came from pit fills showed no major differences in the type of species and body parts present. A worked sheep/goat metatarsal is from pit G[1940] and a sheep/goat tibia from pit G[2422] has a circular perforation through the proximal end.

SUMMARY

The small assemblage of faunal remains from the early Iron Age comprises mainly domesticated cattle, sheep/goat and pig; none of which were in Associated Bone Groups. Evidence of on-breeding suggests that the community was self-sufficient and relied on local produce. The evident dearth in wild species also confirms that the economy was based on arable and livestock production, which was commonly practiced at other contemporary sites in Bedfordshire (Holmes 2007a, 109; 2007b, 344; Maltby 2016; Roberts 2005; Strid 2013). Domestic species predominated with cattle and sheep/goat as the main meat source, although in meat weight, cattle would have made a greater contribution to the diet as at other contemporary sites in Bedfordshire (Maltby 2016, 10; Roberts 2005; Strid 2013, 217). It has been proposed that the high proportion of cattle in the region may be attributed wet pastures suited for cattle rearing (Holmes and Rielly 1994, 543). Pig made a minor dietary contribution throughout the Iron Age, typical for the region (Maltby 2016, 10; Strid 2013, 217). One explanation for this paucity is that the region had less woodland for rearing pigs. Minor domesticates such as horse and dog were present. Horses may have been employed for transportation purposes; however, butchery evidence on their remains confirms that they were utilised for their hides and perhaps their meat. Dogs were also present as scavengers or as animals used for guarding, herding and hunting.

Animals were culled and processed on or nearby the settlement. There were no stark differences in the types of species or body parts deposited in features, although in the earlier-middle Iron Age horse remains were prevalent in ditches. There were small concentrations of primary butchery waste, which would suggest that the majority of butchery waste was deposited elsewhere. Evidence of missing hypoconulids in cattle third molars also indicates that the inhabitants were dependent on a small breeding population. Cattle husbandry was focused on secondary products rather than beef. Beef was available from older animals that produced less milk, had reared offspring and were no longer useful for traction. Surplus animals may also have been slaughtered for meat consumption. Sheep/goat husbandry was based on meat and secondary products, providing lamb, mutton, wool and milk. Similar husbandry patterns were observed for cattle and sheep during the A421 scheme (Holmes 2007b, 344). Pigs provided pork and fat. The worked bone sheep/goat tibia confirms that craft activities were taking place on a small scale.

SITE D

The condition of the animal bone fragments is good to fair. Thirteen post-cranial elements (15%) have signs of carnivore gnawing, which indicates bones left open to scavengers or fed to dogs. Butchery evidence is limited; one cattle metatarsal and tibia has cut marks. The cattle metatarsal, from pit D[1091], has cut marks towards the distal and proximal end, which is usually associated with skinning. The lack of butchery evidence in the assemblage may be attributed to taphonomic and cultural factors. Abraded bones tend to lose butchery evidence on the surfaces. However, Iron Age butchery is also thought to be more methodical and precise and does not always leave butchery marks because the carcasses tend to be fully dismembered with a fine knife (Grant 1987, 55). Nine burnt bones were collected, indicating some burning as a form of waste disposal. There are many loose teeth and fewer still located within the alveoli, which suggests a high level of fragmentation.

SPECIES REPRESENTATION

There are a total of 147 bones from Site D. The assemblage is too small to break down by period, but the majority are from early Iron Age pit clusters. The assemblage is dominated by the three common domesticates with cattle remains predominating over sheep/goat and pig (Table 3.15; Fig 3.63). Horse remains are represented by a metacarpal, two radii and an ulna found in two pit clusters. The same pits also had a sheep/goat metacarpal, tibia and horn core fragment. There are no butchery marks to suggest these animals were utilised for food or skinned for hides. One cattle metacarpal has a circular perforation through the proximal end. Wild mammals, birds and fish are absent, except for one deer antler fragment. The antler has broken into six fragments that do not fit together but are from the same specimen. There are no cut marks on the antler fragments. Small rodent bones come from sieved samples. There is no obvious difference in the species distribution within pit clusters.

Table 3.15: Hand collected and sieved Iron Age specimens, Site D

Species	Hand collected	Sieved
Cattle (*Bos taurus*)	74	1
Sheep/goat (*Ovis/Capra*)	28	9
Sheep (*Ovis aries*)	3	7
Pig (*Sus scrofa*)	19	0
Equid (*Equus* sp.)	4	0
Small rodent	0	2
Total	**128**	**19**

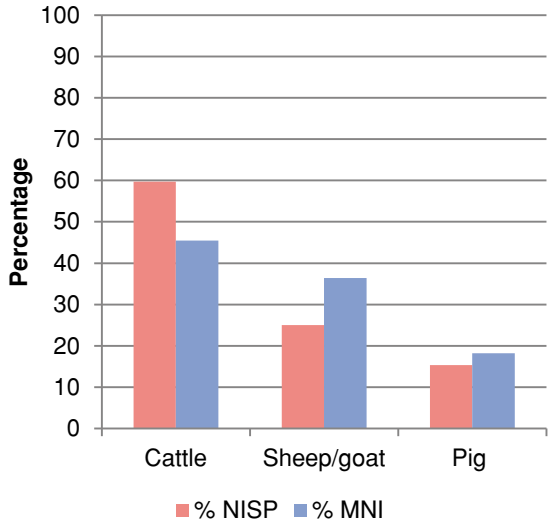


Fig 3.63 NISP and MNI % of the main domesticates, Site D

BODY PART REPRESENTATION

Despite combining the bone data from Site D to increase the sample size, there are no confident assertions regarding carcass distribution and butchery. Each domesticate has elements from the head, fore limbs and hind limbs suggesting slaughter and disposal on site. There were no obvious associated bone groups.

AGEING

The small sample size prevents detailed analysis of the age at slaughter. The majority of cattle and sheep/goat elements are skeletally mature. There is one neonatal sheep/goat radius to suggest on-site breeding. At least one pig survived until 3.5 years. It is possible to estimate slaughter age from three cattle mandibles; the youngest is 18–30 months and the oldest is over 10 years old. Two mandibles are from 4–6 year old sheep/goats, one mandible is from a 7–14 month old piglet and two are from 14-21 month old pigs. Although the data is limited it suggests that cattle and sheep were used for their milk, wool and traction before they were slaughtered. There are two male maxillary pig canines and one that is female.

SUMMARY

The assemblage is probably from a domestic source with limited craft activity at a local scale. The occupants raised their own meat in keeping with Iron Age assemblages from the region, and used animals for secondary resources. The higher proportion of cattle at the site is also typical for Iron Age assemblages in the East of England, which dominate over sheep (Hambleton 1999; Albarella 2007). The presence of juvenile animals implies livestock were part of these herds and is typical of self-sufficient communities.

ANIMAL BONE FROM OTHER IRON AGE SITES

The faunal assemblages from the smaller Iron Age sites were extremely limited. Bone fragments were recovered from two pits at Site M, but could not be identified to species.

There are 25 identifiable bones from Site K; 11 cattle, 12 sheep/goat, one horse and one dog, all of which were in poor condition but are dated to the earlier-middle Iron Age. There was limited evidence of gnawing and burning but no butchery marks were visible. One fragment of cattle ulna was recovered ditch N[14] nearby.

From Site P there are four highly abraded bone fragments from probable late Iron Age/Roman boundary ditches. One horse and three cattle fragments were noted.

MOLLUSCS

BY VAL FRYER

Shells of terrestrial snails are recorded within all the assemblages along with a very small number of marsh/freshwater snails (Fryer 2016, tables 54, 57, 58-59). Many specimens retain delicate surface structuring and colouration that are intrusive within the contexts. However, occasional specimens are fragmented and abraded, and these may be contemporary with the contexts in which they occur. These appear to suggest that whilst most features were situated within an open short turfed grassland habitat, some were either partly shaded or contained fills with a high density of loose stone, rotted leaf litter, or a mixture of both. Most notably, pit G[2354] and ditches G[2064] and G[2022] may also have been damp or possibly seasonally water-filled. There are also abraded specimens of *Anisus leucostoma* and *Lymnaea* sp. within the assemblage from ditch D[1188], signifying similar conditions.

From Site K there are numerous abraded mollusc shells from earlier-middle Iron Age contexts suggesting that the storage pits were situated within an area of open grassland, and at some stage had become partly shaded and/or filled with rubble or leaf litter (Fryer 2016).

RADIOCARBON DETERMINATIONS

A key objective of the Stage 2 post-excavation analysis was to associate diagnostic Iron Age pottery from secure contexts with scientific dates (Brown 2016, 93). In addition, the pit clusters at Site D and the basal deposits of ditch Q[784] required at least one clear scientific date. Elsewhere the association of pottery with radiocarbon analysis would help to support broader stratigraphic sequencing. The results of these determinations are provided in Table 3.16 and are illustrated with the radiocarbon curve in Figure 3.64.

Contexts for scientific dating were selected to confirm the progression of styles through the early, earlier-middle and later-middle Iron Age, as illustrated in Figs 3.46-3.49. Of these 15 sherds there are 11 that are directly associated with radiocarbon dates. There are three that are all from contexts that lay stratigraphically earlier than a dated deposit, and one that overlay a dated deposit.

EARLY IRON AGE DATES

Attempts to date pits D[1125], D[1160] and D[1165] in pit cluster DPC2 were unsuccessful owing to a mixture of both earlier and later material. Pottery from these contexts include sherds with triangular motifs on the shoulder (Fig 3.46, <P9>), incised and fingertip decorated shoulders (Fig 3.46, 2), and incised and fine combed decoration (Fig 3.46, <P8>). However, the overlying layer, D[1231], was twice successfully dated to the early Iron Age (Beta-458331; Table 3.16) using possible buckthorn charcoal, and further corroborated with animal bone (Beta-456911). Buckthorn (*Rhamnus*) is rarely identified archaeologically, and its presence is itself worthy of note. From this context there are small sherds with incised decoration (Fig 3.46, <P13>).

The sherds from pit D[1212] have incised running chevrons and a filled triangle (Fig 3.46, <P11>) and are associated with a date of 750–685/665–640/590–405 cal BC (95% confidence, 2430±30BP, Beta-456910). The rim sherd with the neck decorated with a running double chevron (Fig 3.46, <P13>) is from layer D[1213], above pit cluster DPC3, and which directly overlay pit D[1212] but was cut by a medieval furrow thus making it unsuitable for dating purposes.

There is a small globular bowl with incised lattice decoration and sharply everted neck from pit G[1461] (Fig 3.47, <P14>) associated with a date of 510–395 cal BC (95% confidence, 2370±30BP, Beta-456916), and another large globular bowl with boldly incised double triangles is from the same pit (Fig 3.47, <P15>).

There are two sherds from pit G[1516]; one from a thin-walled vessel with double incised chevrons (Fig 3.47, <P16>) and a globular burnished bowl with clusters of fingertip decoration (Fig 3.47, <P17>). These were dated to 765-410 cal BC (95% confidence, 2460±30BP, Beta-456917) although at 68% confidence the greater probability suggests a date of 590–510 cal BC.

A long necked shouldered jar with bold finger impression on the shoulder was dated to 385–200 cal BC (95% confidence, 2230±30BP, Beta-456918) and came from pit G[1972] within the main Iron Age settlement area at Site G.

Also from Site G there is 600g of pottery from pit G[1293] that includes thin-walled vessels and finely incised chevrons forming lozenges (not illustrated). Animal bone provided a radiocarbon date of 735–690/660–645/545–400 cal BC (95% confidence, 2410±30BP, Beta-456914), but a more precise result was recovered from elder charcoal; 540–395 cal BC (95% confidence, 2390±30BP, Beta-458333). Similarly there is 240g of pottery derived from a single vessel with incised and fingertip decoration from pit G[1305] dated firmly to 410–380 cal BC (95% confidence, 2340±30BP, Beta-456915).

Table 3.16: Radiocarbon determinations from Iron Age contexts

Laboratory & Sample no.	**Context**	**Sample details**	**C13/ C12**	**Conventional radiocarbon age BP**	**Calibrated BC/AD intercept** ***68% confidence*** **95% confidence**
Beta-456910 A5M1/D1210	pit D[1212]	animal long bone	-21.6 +6.0	2430±30 early IA	510 *730–690/660–650/540–410* **750–685/665–640/590–405**
Beta-446414 A5M1/D1223	pit D[1224]	cereal (indet.)	-24.7	2420±30 early IA	480/440/435 *540–410* **745–685/665–645/550–400**
Beta-458331 A5M1/D1231	layer D[1231]	charcoal (buckthorn)	-25.5	2440±30 early IA	535/525/520 *735–690/660–645/545–415* **755–680/670–610/595–405**
Beta-456911 A5M1/D1231	layer D[1231]	animal tooth	-22.1 +7.6	2430±30 early IA	510 *730–690/660–650/540–410* **750–685/665–640/590–405**
Beta-456914 A5M1/G1292	pit G[1293]	animal long bone	-21.4 +5.9	2410±30 early IA	415 *535–405* **735–690/660–645/545–400**
Beta-458333 A5M1/G1292	pit G[1293]	charcoal (elder)	-24.5	2390±30 early IA	410 *480–400* **540–395**
Beta-456915 A5M1/G1303	pit G[1305]	animal tooth	-21.3 +8.2	2340±30 early IA	400 *405–395* **410–380**
Beta-456916 A5M1/G1460	pit G[1461]	animal long bone	-21.3 +6.2	2370±30 early IA	405 *410–400* **510–395**
Beta-456917 A5M1/G1512	pit G[1516]	animal long bone	-21.6 +5.6	2460±30 early IA	730/690/660/650/540 *750-685/665-640/(590-510)* **765-410**
Beta-456918 A5M1/G1970	pit G[1972]	animal long bone	-21.6 +6.5	2230±30 early IA	355/275/255 *370–355/305–210* **385–200**
Beta-458340 A5M1/Q484	ditch Q[784]	charcoal (alder/hazel)	-26.2	2180±30 early–middle IA	340/325/205 *350–295/230–220/210–195* **360–170**
Beta-458339 A5M1/K15	pit K[17]	charcoal (*Prunus* sp.)	-24.2	2180±30 early–middle IA	340/325/205 *350–295/230–220/210–195* **360–170**
Beta-446415 A5M1/K49	pit K[51]	cereal (indet.)	-25.8	2180±30 early–middle IA	340/325/205 *350–295/230–220/210–195* **360–170**
Beta-446416 A5M1/K93	pit K[95]	hazel nutshell	-23.2	2150±30 early–middle IA	195 *340–325/205–170* **350–295/230–220/210–105**
Beta-446413 A5M1/D1154	pit D[1160]	cereal (indet.)	-26.2	2130±30 later–middle IA (intrusive)	170 *200–155/135–115* **345–320/205–85/75–55**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration

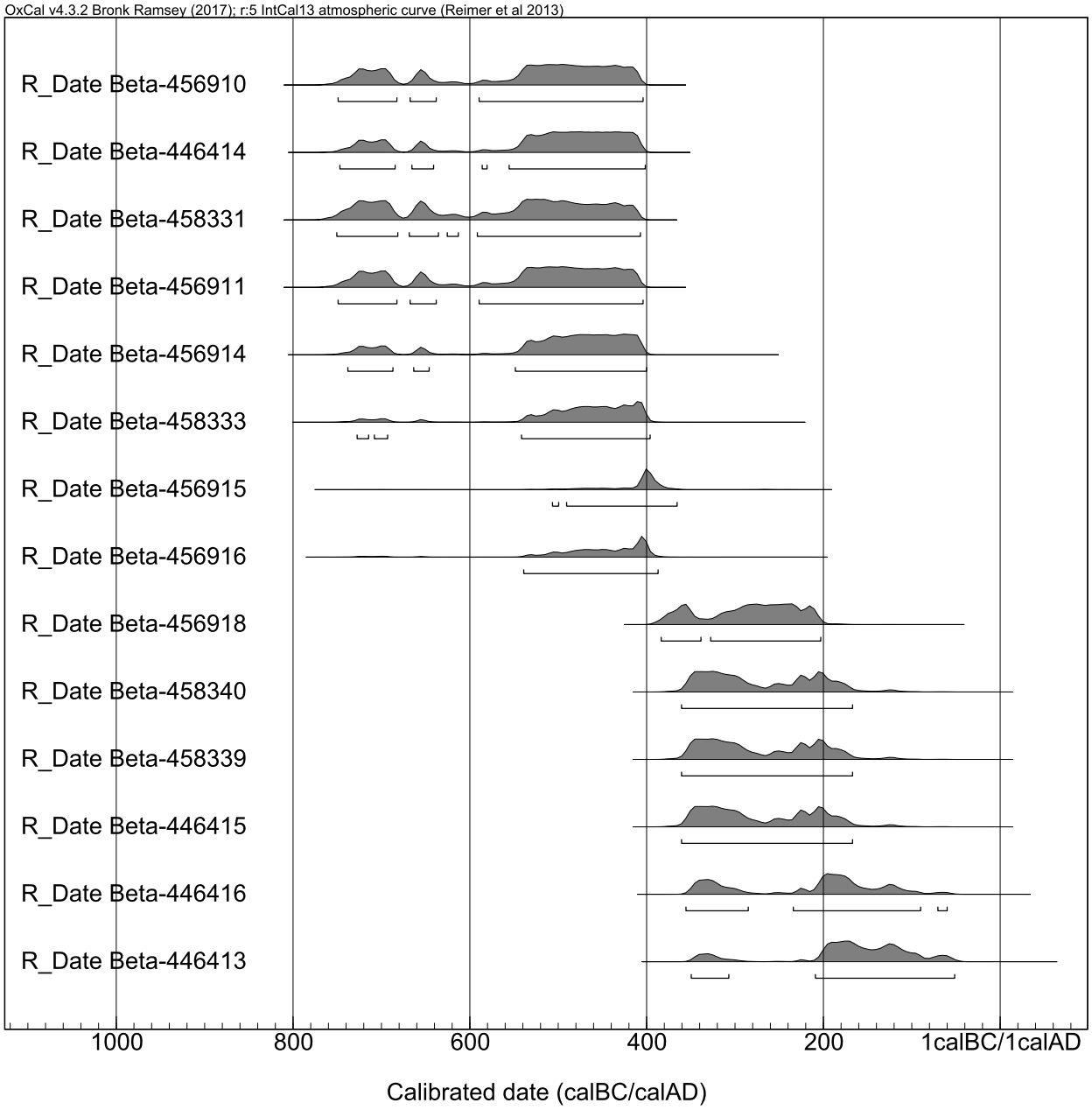


Fig 3.64 Radiocarbon determinations for the Iron Age

Earlier-middle Iron Age dates

Distinctive pottery was recovered from the storage pits at Site K; a shouldered and long necked jar (Fig 3.48, <P19>) and a shouldered jar with fingertip impressed rim (Fig 3.48, <P20>) are both from pit K[95]. Hazel nutshell from this pit provided a radiocarbon date of 350–295/230–220/210–105 cal BC (95% confidence, 2150±30BP, Beta-446416).

The other storage pit, K[17], was also chosen for analysis and contained two diagnostic shouldered jars (Fig 3.48, <P21>) and a jar with a wavy applied cordon (Fig 3.48, <P22>). Probable blackthorn charcoal from this pit provided a radiocarbon date of 360–170 cal BC (95% confidence, 2180±30BP, Beta-458339).

A pit cluster in close proximity to these contained within it pit K[51] from which indeterminate cereal grains were dated to 360–170 cal BC (95% confidence, 2180±30BP, Beta-446415) in the absence of charcoal or animal bone. This indicates that pit clusters are not purely an early Iron Age phenomenon.

A curvilinear ditch at Site Q had briefly been mooted on site as a possible Bronze Age ring ditch, subsequent assessment of the pottery indicated mainly 1st century AD pottery sherds with some earlier sherds in basal deposits. Radiocarbon analysis of possible alder or hazel charcoal from basal deposits produced a date of 360–170 cal BC (95% confidence, 2180±30BP, Beta-458340), which falls in the early part of the range for an inhumation burial in close proximity (see Chapter

5). The burial was dated 345–320/205–85/75–55 cal BC (95% confidence, 2130±30BP, Beta 446429; Table 5.12). Although stratigraphic analysis of the site concluded a largely late Iron Age/Roman transitional period of occupation (see Chapter 4), it is clear that some middle Iron Age activity was present in the vicinity but could not be clearly defined within the detailed excavation.

LATER-MIDDLE IRON AGE DATES

The radiocarbon date obtained from pit D[1160] is from an indeterminate cereal grain in the absence of other suitable material. The date is later than both of the dates from overlying layer D[1231] and the cereal is therefore considered intrusive.

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

The transition from the late Bronze Age to the early Iron Age (*c.*800BC) saw increased evidence for settlement, and the few hillforts in the area are at least partially ascribed to this time. The rise in settlement formation was also accompanied by demarcation of the land, whether perceived as political territories, ownership by community/kindred groups, or as the product of economic development, representing a significant change in the status quo. The three major boundary forms noted in the north Chilterns are dykes, bank and ditch earthworks, and pit alignments (Dawson 2007). Such boundaries are difficult to date securely as they often lack suitable quantities of artefacts or ecofacts in basal contexts.

Maiden Bower (NHLE ID:1015593) is a hillfort around 2km south-west of Site G, near Sewell. It is recorded as a univallate hillfort; a settlement with a single circuit earthwork rampart; however, recent studies indicate that it had an inner palisade that may have been of the early Iron Age (Historic England 2018b; Hamilton and Pollard 1994).

With the emergence of major landscape boundaries it is tempting to assume that field systems originated at the same time. Evidence for this is lacking as sites where there is a physical relationship between Neolithic or early–middle Bronze Age features and field systems, or between early field systems and Iron Age or Roman features, frequently fail to produce the essential dating evidence required. There are some examples, such as Broom Quarry, where a roundhouse and pits with late Bronze Age pottery appeared to be aligned with a middle Bronze Age field system (Mortimer 1997, 40-42). Evidence for continuity was otherwise absent and for the present, and until demonstrated otherwise, the rejuvenation of field systems appears to be an Iron Age phenomenon that perhaps exhibits, at best, sporadic continuity with earlier periods.

The evidence for settlement is better dated, with examples of both enclosed and unenclosed concentrations of roundhouses, post structures and pits emerging through the early Iron Age, and with post structures (including post-built roundhouses) an apparent hold over from the Bronze Age. It is the roundhouse without post supports that appears as an innovation. At Biddenham Loop two pit alignments were in close proximity to an unenclosed group of post structures and pits; amongst which a grain deposit was dated 905–795 cal BC (Luke 2008). Three roundhouses and associated boundaries were dated *c.*900–700BC at Broom Quarry (Mortimer 1997, 53). A key feature of settlement frequently includes groups of pits without a clearly apparent function, cut either discretely or as intercut clusters, and usually filled with waste materials from domestic and craft activities that presumably derived from nearby settlement. However, as with pit alignments and four or six post structures, it is likely that differing functions, structural forms and levels of importance appear through their physical remains to be similar and require more detailed diagnostic information to separate by type or hierarchy.

Land take appears to increase into the earlier-middle Iron Age and settlements frequently exhibit few links to earlier activity, making those with early Iron Age predecessors significant in themselves. The rapid rise in newly founded sites indicates an increased pressure for land, a growing population and a rise in land clearance. Whilst it has been noted that many sites lie on higher ground (Cartwright 2004), this is contrary to the evidence from Site G. However, the observation that middle Iron Age settlement tends to develop by expanding and extending, perhaps also with some localised migration is consistent with other sites in the county (Dawson 2007). It is also clear that different types of settlement existed, as there were both large and small agricultural settlements emergent, some enclosed and others unenclosed, together with occupation of a few defended sites like Sharpenhoe Clappers (NHLE ID: 1009400, Historic England 2018d), which is a promontory hillfort located on the chalk ridge, *c.*5km to the north-east of Chalton; and also Maiden Bower to the south-west (NHLE ID: 1015593, Historic England 2018b). A research priority is the relationships between these kinds of sites and the interactions that must have been fundamental to middle Iron Age life.

There are four probable middle Iron Age sites recorded by the Historic Environment Record (HER) within a 500m of the scheme (Fig 3.65; Table 3.17). Two of these sites were identified during work leading up to construction: Site G, Site K and Site N. Late Iron Age sites are specifically excluded as most of these carry on being occupied into the Roman period (see Chapter 4).

Table 3.17: HER data for probable early and middle Iron Age sites

Age	HER Ref	Description	NGR	
Prehistoric	16593	Enclosure cropmark, south of Chalton	503100	226000
Prehistoric	16594	Enclosure cropmark, south-east of Chalton	503400	226000
Iron Age	18290	Farmstead found by geophysical survey	499600	224500
Iron Age	18293	Boundary ditches	503700	225700

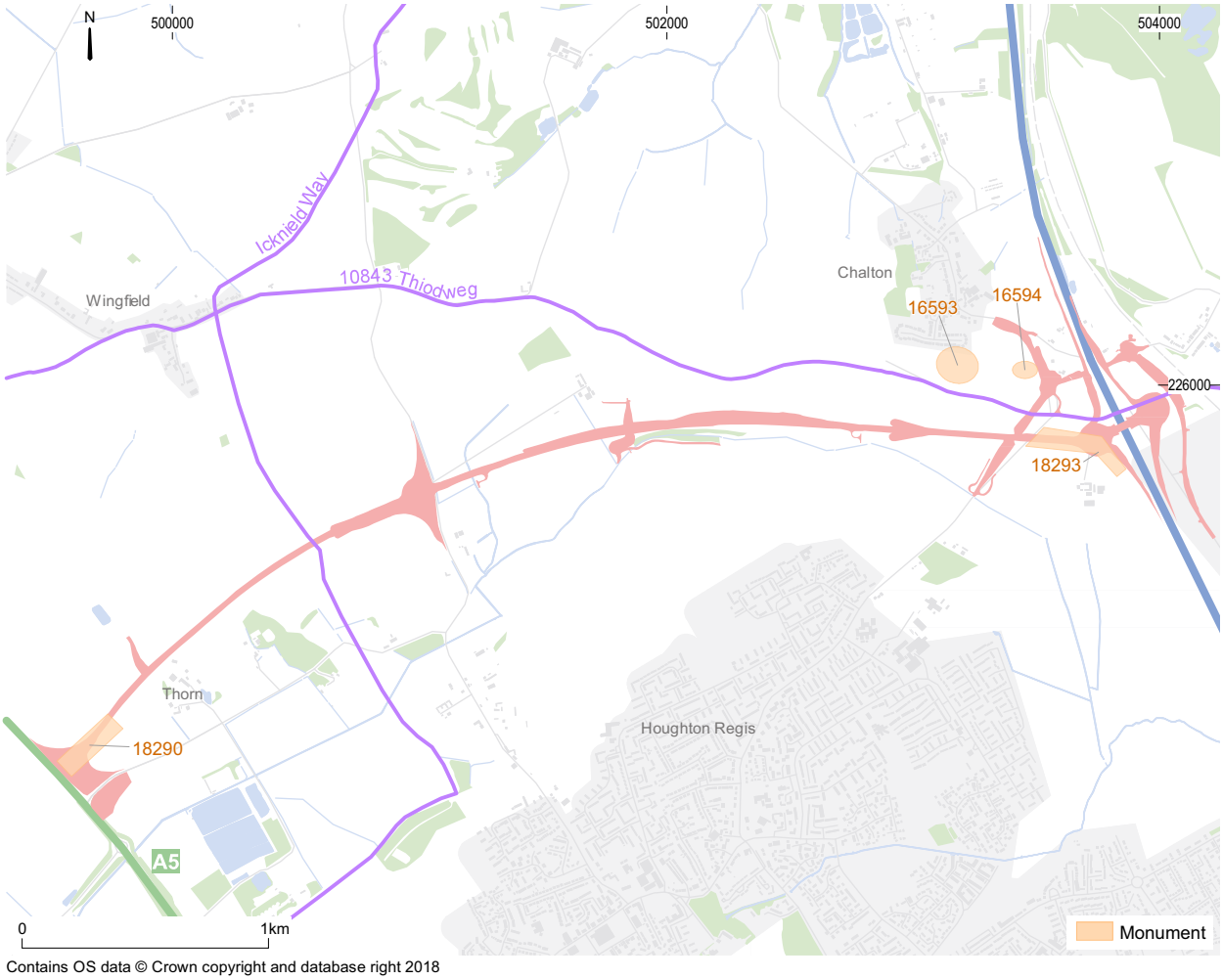


Fig 3.65 HER data for probable early and middle Iron Age sites

A series of cropmark enclosures were identified to the south of Chalton through aerial photography in 1996. The western group (HER16593) comprises three sub-rectangular enclosures, two of which were seen abutting each other. The eastern cropmark (HER16594) appears as three sides of a sub-rectangular enclosure. They are undated but are likely to be Iron Age and may carry a relationship with similar sites nearby.

The discovery of two additional sites in the Ouzel Brook valley fills a geographical void in settlement distribution, and the opportunity to investigate Site G in detail contributes significantly towards the goal of understanding middle Iron Age settlement patterns locally, and across the county.

Latest Bronze Age to early Iron Age activity/ occupation (c.800–400BC)

Remains of significant early Iron Age settlement(s) occurred in Sites D and G. Relatively few early Iron Age settlements have been excavated in Bedfordshire and even across the region as a whole. The rarity value of the settlement is enhanced by the fact that the excavations within the settlement took place over a large area and a significant proportion of the settlement has probably been excavated. The settlement comprised pit clusters as a notable component, which is uncommon amongst known settlements of this type. A moderate to large quantity of artefacts (mainly pottery) and animal bone enhances our understanding of these finds groups.

This early Iron Age site seemingly continued into the middle and then late Iron Age, but the type of features changed and were largely concentrated in Site G where roundhouses, ditches, enclosures and a modest quantity of largely isolated pits were found.

START DATE OF THE EARLY IRON AGE SETTLEMENT AT SITES D AND G

The early Iron Age settlement(s) at Sites D and G were in an area that was not previously inhabited. At Sites G and M the small quantity of middle–late Bronze Age activity collectively comprised a pit alignment, one possible well and two pits. These were presumably related to farming or boundary features. The area of early Iron Age occupation was therefore unrelated and also of a different nature to the late Bronze Age features. An important reason why occupation occurred at Sites D and G and not Site M was probably topographic. Site M lay on low lying wet land prone to flooding, 200m from the Ouzel Brook, and only *c*.1–2m above the present flow of the river. In contrast Sites D and G were 400–500m from the brook, and *c*.3–5m above the present flow of the river.

The start date for early Iron Age occupation at Sites D and G is uncertain. The evidence suggests that the settlement was more likely to have been inhabited after 600BC and not at the late Bronze Age/early Iron Age transition or near the beginning of the early Iron Age. The uncertainty is due to the inability to concisely date pottery and radiocarbon dates being notoriously wide after *c*.800BC. Where radiocarbon dates have been taken from early Iron Age features, the curve invariably starts in the 8th century BC, although the main curve dates to *c*.590–405BC. The exception is pit G[1461] whose curve is entirely in the latter period 510–395 cal BC (95% confidence, 2370±30BP, Beta-456916). Likewise, a few pottery sherds were either late Bronze Age or early Iron Age, but far more have been assigned an early Iron Age date or generic "Iron Age" date.

The lack of Bronze Age features may be significant as locally sites with Bronze Age activity or occupation seemed to have continued into the early Iron Age. Hence at Salford there were three former possible funerary ring ditches in the late Bronze Age. This site became an enclosed settlement behind a palisade with four roundhouses as well as three post ring roundhouses in the early Iron Age, 800–400/300BC (Dawson 2005, 32-40, fig 2.14).

Occupation evidence for the period *c*.800–600BC is very rare for the region as a whole and it implies that Sites D and G are less likely to have been active this early, especially as there was no significant precursor. The regional frameworks note that the Bronze Age/Iron Age transition usually sees a marked changed in the archaeological record in the Eastern Region, with the abandonment of many late Bronze Age field systems and population/settlement contraction (Medlycott 2011, 29). This period of occupation equates to Knight's (1984) *Iron Age 1* from the late 9th–later 5th centuries BC. This is the first of three broad divisions for late Bronze Age to late Iron Age settlements within the Nene and Great Ouse basins.

LAYOUT OF FEATURES AT SITES D AND G

The form of the early Iron Age pit clusters at Sites D and G is not common in the East of England; sites include Chatteris, Cambridgeshire (Atkins 2012; Atkins and Percival 2014) and Newport, Essex (Wolframm-Murray 2016). The similarity in plan of the features at Sites D and G and those from Chatteris and Newport are striking (Fig 3.66).

The full extent of any early Iron Age settlement is not known but within the excavation of Sites D and G the features were distributed over an area of *c*.4ha. It is possible that the early Iron Age features continued to the west, north and east beyond the excavated extent, but not towards the Ouzel Brook. In contrast, the Chatteris site was far smaller and the limits of the activity was limited to 0.24ha (Atkins and Percival 2014), whereas the limit of the Newport settlement was not defined (Wolframm-Murray 2016).

Nearly half of the area at Sites D and G was excavated and revealed six pit clusters, and a further possible pit cluster (GPC2) in the drainage trench to west of Site D (not illustrated); 20 isolated pits and three postholes were also recorded. The pit clusters and pits were spread in loose groups with relatively few features *c*.50m apart and this may suggest scattered occupation across the area. At Chatteris the three pit clusters were closer together at *c*.15m apart and were presumably the main focus of activity (Fig 3.66).

The role of the pits, both clustered and isolated, is not yet understood. Dawson (2007, 62) agreed with Hill (1995a) that there was insufficient data on pits in the region to reach a consensus regarding their initial function or role in the disposal of artefacts. Dawson was focusing on isolated pits in the region, but the statement also applies to clusters.

EARLY IRON AGE PIT CLUSTERS AT SITES D, G AND AN EARLIER-MIDDLE PIT CLUSTER AT K

The seven intercutting pit clusters varied in extent from 3m by 2m up to 13m by 11m (Table 3.18), and with different contents. In addition, there were also isolated pits in the vicinity (see below). The pit cluster at Site K was slightly later in date being recorded as earlier-middle Iron Age. Table 3.18 records an overview of the pit clusters and what was found within them after/during disuse.

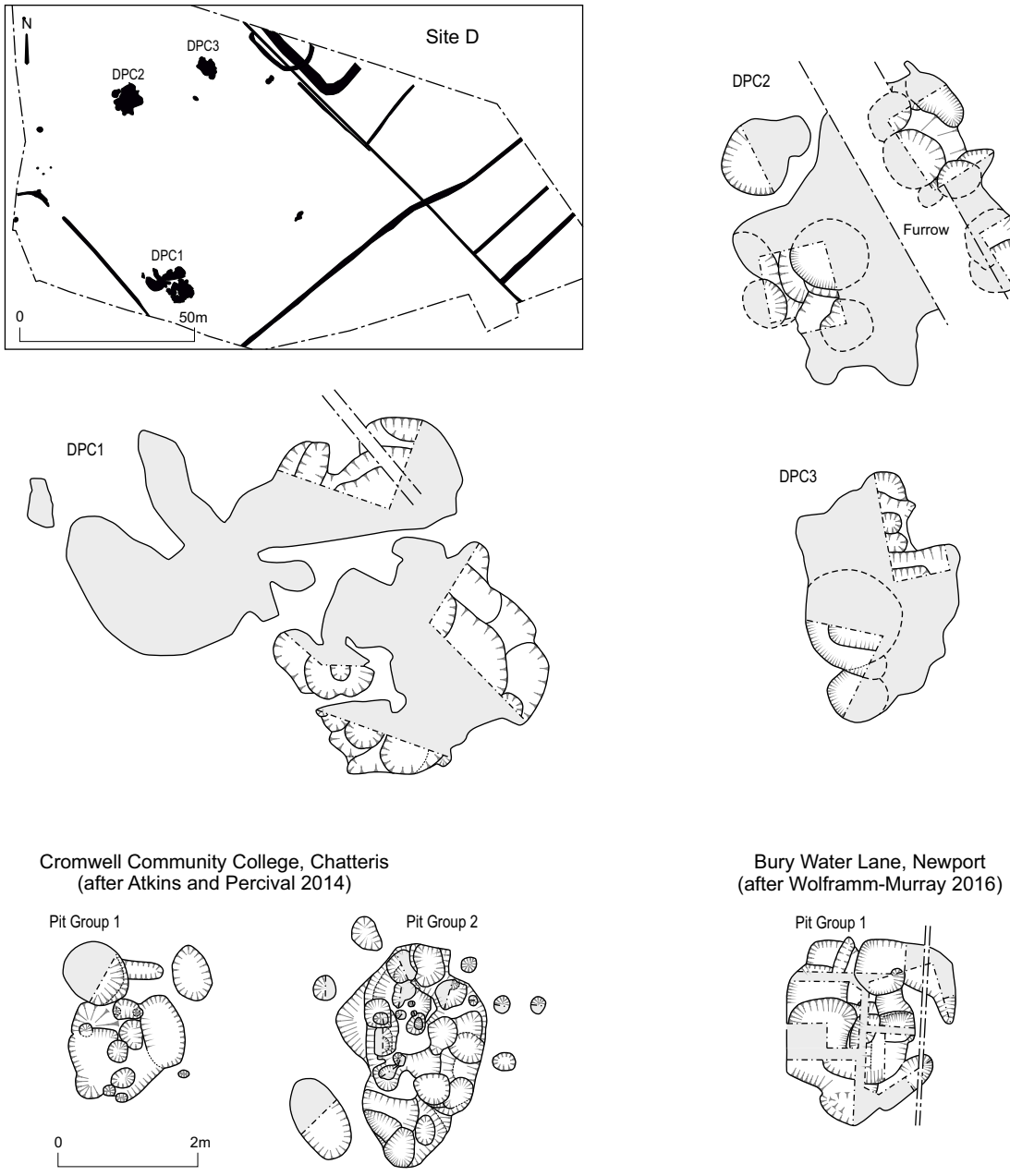


Fig 3.66 Comparison of pit clusters

The pit clusters are seemingly a type of feature that may be a significant aspect of settlement activity. In analysing settlements where pit clusters have been found they did not include any definite contemporary ditches. A single possible enclosure was found in Site D and a possible linear ditch was located at Chatteris. The lack of evidence for buildings at Sites D, G and K make it difficult to understand the layout in terms of where people lived. Only a few possible contemporary postholes were found at Site D. None of those from Site G could be assigned to this period. This is in contrast to Chatteris, which had both posthole structures and pit clusters, sometimes intercutting. One posthole was found at Newport within the pit cluster. It is possible that any ephemeral posthole structures at Sites D and G were removed by later ploughing. The relatively large quantities of Iron Age pottery and animal bone, especially within the pit clusters (Table 3.18), suggest that occupation was located nearby.

The clustering of the pits could suggest this was a designated area for quarrying as part of an organised pattern of settlement with the occupation laying close by, but this possibility is unlikely. At Sites D, G and K the natural comprised West Melbury Marly Chalk and Zig Zag Chalk of the Lower Chalk Formation, all elements of the Upper Cretaceus (BGS 2001). At Newport, the solid geology was New Pit Chalk Foundation, sedimentary bedrock dating to the Cretaceous (Wolframm-Murray 2016, 3). In contrast the pits at Chatteris were cut

Table 3.18: Comparison of pit clusters, Sites D, G and K, with Chatteris and Newport

Group	Approx. size (m)	Quantity of artefacts	% excavated
DPC1	13.0 x 11.0	73 pottery sherds (360g); nine animal bones including one perforated cattle metacarpal	*c.*40%
DPC2	8.3 x 7.2	363 pottery sherds (5,080g); fired clay/daub (70g); four human bones (two individuals); small worked bone pointed blade; crucible sherd (10g); 56 unburnt and 35 calcined animal bones; 2 flint blades and a flake	*c.*33%
DPC3	6.5 x 4.7	300 pottery sherds (4,300g); fired clay/daub (50g); 28 unburnt animal bones and some calcined fragments; flint scraper and a flake	*c.*25%
DPC4	3.0 x 2.0	4 pottery sherds (100g); one burnt animal bone	*c.*50%
GPC1	3.4 x 2.5	16 pottery sherds (125g); horse skull	*c.*50%
GPC2	7.0 x 5.0	355 pottery sherds (6,590g); fired clay (25g); one human bone; 108 animal bones	*c.*50%
GPC3	9.5 x 3.5+	-	<28%
KPC	8.5 x 7.75	7 pottery sherds (56g); 8 animal bones	c.53%
Chatteris 1	3.8 x 3.5	209 pottery sherds (2,240g); fired clay object (38g)	100%
Chatteris 2	6.5 x 4.5	229 pottery sherds (670g); fired clay (73g) including four parts of hearth/oven lining; three flint chunks	100%
Chatteris 3	6.0 x 6.0	16 pottery sherds (40g)	*c.*50%
Newport	5.0 x 5.0	158 pottery sherds (1,310g); 111 animal bones; 7 flint flakes	*c.*75%

into drift sediments composed of sands and gravels belonging to the March Gravels Member of possible lpswichian age (Atkins 2012, 8). If these pits were for extraction it is uncertain what use chalky clay or sands and gravels would have provided in the early Iron Age, and no reason was offered at either Chatteris or Newport for this extraction (Atkins and Percival 2014; Wolframm-Murray 2016). It is also true that at sites where the natural comprised sands and gravels, pits could not be used for storage. Why the intercutting pits were created is uncertain (Atkins and Percival 2014; Wolframm-Murray 2016). Similar, but more extensive early Iron Age pit clusters were found in Hampshire at Winnall Down, tentatively suggested as extraction pits (Fasham 1985).

The six pit clusters in Sites D and G comprised intercutting pits only, although a few of these pits were very small at 0.3–0.4m wide and may have been postholes. Site K may have had two postholes cutting the pits in the cluster. At Chatteris there were two pit clusters that had postholes cutting pits and one without (Atkins and Percival 2014). At Newport a single posthole cut the pit cluster (Wolframm-Murray 2016, 5-6).

The different pit clusters were not fully excavated; a representative sample of 30–50% of each cluster was examined. The total number of pits within each cluster is unknown; sample excavation showed it varied greatly in each cluster. The number and size of the pits is recorded, along with the differentiation in the artefacts (Table 3.18). In DPC1 there were 14 pits that varied from 0.40–2.5m in diameter and were 0.14–0.61m deep. In DPC2 there were nine pits that varied from 0.70–2.95m in diameter and were 0.24–1.0m deep. DPC3 examined 11 pits that were 0.30–2.38m in diameter and 0.04–0.65m deep. In DPC4 there were three pits that were 1.5–2.0m in diameter and 0.27–0.50m deep. In GPC1 four pits were found and these were 1.3–5.5m in diameter and 0.32–0.82m deep. In GPC2 three pits were examined and all of them were *c.*1.6m in diameter and 0.40–0.58m deep. The 23 intercutting postholes and pits at Site K were between 0.16m and 2.6m in diameter and were up to 0.58m deep.

Pit clusters at Newport and Chatteris exhibited similar variations in size. At Newport the pits ranged from 0.90–2.0m in diameter and were 0.14–0.80m deep (Wolframm-Murray 2016, 6). In Chatteris the pits in the three clusters were 0.78–3.0m in diameter and 0.06–0.42m deep. Chatteris pit group 3 had pits only of large diameter, all of them shallow, and contained few artefacts. In contrast the other two clusters from Chatteris had pits up to 1.75m in diameter, but varied in depth. Pits from all the sites were non-uniform and had gentle sloping (30°) to near vertical sides.

After disuse the pits were backfilled with different materials; some domestic in nature, with variations even in the same pit cluster that suggested disposal from several sources (Table 3.18). The majority of the pit clusters were also sealed by layers (DPC1–4), at Newport, and also the second group at Chatteris. This may suggest that backfilling took place over a relatively short period of time.

The quantity of artefacts greatly varied within two of the pit groups at Site D and one at Site G, producing

significant assemblages (Table 3.19). A few fired clay fragments and a small worked bone pointed knife indicated some specialist activities nearby. In addition in layer D[1213], sealing DPC2, there was a small fragment of a crucible used in lost wax copper-alloy casting. One cattle metacarpal in layer D[1061], sealing DPC1, had a circular perforation through the proximal end, which is indicative of craft-working. Wild animal bone fragments included a deer antler fragment in a layer above DPC3.

At all three settlements (Sites D and G, Chatteris and Newport) the majority of the artefact concentrations lay within pit clusters with relatively few finds found in isolated features. At Chatteris 73.5% of pottery sherds came from the three pit clusters out of a total of 618 sherds (3.73kg), although there were fairly low levels of animal bone. The authors concluded that most of the waste from Chatteris was disposed of in ways that were not visible in the archaeological record (Atkins and Percival 2014, 34).

Three of the four contexts with disarticulated human bone fragments were recovered from pit clusters. From pit D[1212], in DPC2, there were three humerus fragments from probably a single neonate, and layer D[1231], sealing DPC2, produced a single frontal bone fragment. A frontal bone fragment was also recovered from pit G[1516] in GPC1. All three features and layers were radiocarbon dated and produced early Iron Age dates (Table 5.12). Detailed discussion of these remains is within Chapter 5, together with other human bone analysis, and is not repeated below. Theories concerning disarticulated human remains in this period suggest that they were deposited in middens and then on fields as a fertility rite (Parker Pearson 1996, 126–7). The theory that some of the deposits within the pits derived from middens, including those containing human remains, would explain the variations in the type of deposits from pit clusters. The disarticulated human remains were all found in dark grey to black sandy-silty clay with large and diverse quantities of artefacts and ecofacts. In contrast no human bone fragments were found at Chatteris or Newport (Atkins and Percival 2014; Wolframm-Murray 2016). The relative high incidence of gnawing of the animal bones within the pit clusters in Sites D and G is also important to this argument, as animal gnawing is thought to be indicative of midden waste.

Pit clusters are also recorded later on, not solely in the early Iron Age. Site K was an earlier-middle Iron Age settlement, 3km to the east, where a similar pit cluster, KPC (Fig 3.54), was dated by pottery and a radiocarbon analysis. A similar late Iron Age pit cluster has been found at Cambridge Road, Bedford (Chapman and Chapman 2017, Fig 3.16).

ISOLATED PITS AND POSTHOLES AT SITES D AND G

Twenty-one isolated pits and three postholes were found. At Site D there were 11 pits in two loose groups at least 30m to the north and west of pit cluster DPC2 (Fig 3.7). In addition, two separate pits were not part of these, situated *c.*10m and *c.*20m to the south-west and east of DPC3. Overall, it does not seem that isolated pits were directly associated or linked to the pit clusters. Similarly in Site G, pit cluster GPC1 had two isolated early Iron Age pits adjacent to it, whilst the other eight isolated pits were too distant to be related. In all, ten isolated pits were scattered unevenly over a distance of nearly 250m in a manner that suggested they were probably not directly related to each other.

Some of the isolated pits recovered along the A5–M1 link may have been for grain storage pits, but many remain enigmatic. The role of isolated pits has recently been analysed and some suggestions have been postulated. At Biddenham Loop 59 small pits ('scoops' and basin-shaped profiles) were found, usually in groups, in the vicinity of other features within the settlement (Luke 2008, 36). The origin of the scoops was uncertain but those with basin-shaped profiles, usually larger than the scoops, may have been used to store grain. Storage pits were recorded at Fairfield Park and other sites. They rarely intercut suggesting that their location was remembered or marked in some way (Webley *et al.* 2007, 145). Of the 20 pits from Sites D and G only two or three could be described as 'scoops' with more than 10 displaying basin-shaped profiles. The most likely to have had a storage function was pit G[1874], which was slightly bell shaped with a flat base.

The 11 isolated pits from Site D were of similar diameter, 0.80–1.3m, but their depths varied greatly from 0.17–0.82m. The pits sides varied from moderate sloping sides to near vertical, and this was also true at Site G where there were nine isolated pits. These pits were 0.54–1.7m in diameter, with one at *c.*5m, and depths of 0.10–0.62m.

Three undated postholes were found in Site D located 10m to the north of four possible storage pits. This is the only possible structure within the site and the location of the pits may not have been a coincidence. At Salford most of the 11 pits were located adjacent to roundhouses and there seems to have been an association between the two (Dawson 2005, 43-44).

The quantity of artefacts varied within the 11 isolated pits from Site D. Where pits contained pottery, five pits had between two and nine sherds, and only one contained a moderate quantity (42 sherds, 0.38kg). The ten pits from Site G produced more artefacts.

Only three pits had less than 12 pottery sherds, with one moderate assemblage of 25 sherds (0.25kg). In contrast three pits produced large finds assemblages. These three pits were all fairly or very large, 1.62–5.0m in diameter and 0.42–0.64m deep. The pottery assemblages comprised 76 sherds (0.63kg), 116 sherds (0.79kg) and 199 sherds (2.085kg). One pit also had an undiagnostic copper-alloy fragment. Metal objects, even fragments are rare, presumably as these objects were of value and if broken the objects would have been melted down. One pit produced a moderate quantity of fired clay, including pieces with flat surfaces.

The environmental report found few charred grains and these were thought to have blown into the features from scattered refuse. The small quantity of cereals indicated wheat and barley was present, but the lack of significant chaff suggests that crop processing had not occurred on site. The small quantity of segetal/grassland weed seeds was derived from probable wind-blown material. Charcoal in pit G[1093] included elder which was radiocarbon dated. There is no other evidence for the fuel wood used from the vicinity, which may have been largely cleared.

The animal bone quantities varied across the site. The most significant was from the GPC1 pit cluster were animal bone from contexts G[1506], G[1511] and G[1512] denoted domestic refuse. There was a mixture of animal parts including cranial fragments, forelimbs and hind limbs for cattle and sheep/goat. A partially complete dog skull came from pit fill G[1506].

Isolated pit G[1874] produced evidence for antler working with a segment of the lower part of a roe deer which was heavily modified.

Pottery was the most common artefact found. A small to moderate assemblage of late Bronze Age/early Iron Age pottery was recovered from Site G and comprised 1,154 sherds (15.4kg), and nearly the same quantity was found at Site D, in both plain and decorative types.

Radiocarbon dates from features containing notable early Iron Age assemblages show that several types of pottery decoration were in use during this period. Decorative types include pairs of finely incised zig-zags forming lozenges in a vessel from pit G[1293] while the assemblages from pits G[1461] and G[1516] included: a bowl with neatly incised lattice decoration; a bowl with a boldly incised geometric motif of double triangles; a vessel with incised zig-zags; another with an incised double-V motif; and a body sherd with oblique fine combed decoration. A barrel-shaped jar, dated to this period, is a long-lived type as it is also found in the middle Iron Age.

Other early Iron Age settlements

Evidence of early Iron Age occupation is still rare in Bedfordshire although "as the late Bronze Age shades into the early Iron Age, settlement evidence increases slightly" (Dawson 2007, 61). It is therefore important to try to understand the present sites in relation to other county-wide examples. Typically, open settlements of the early Iron Age in the Eastern Region consisted of post-built roundhouses, two and four-post structures and pits (Bryant 1997, 25). The early Iron Age settlement was open at Sites D and G but was different to those described by Bryant, which may in part be due to later ploughing removing shallow features such as postholes.

It is uncertain whether Sites D and G were contemporary. The remains in the areas could have been separate contemporary occupations, one occupation that migrated gradually over time, or different unrelated occupations that were spaced apart over the period. The widespread evidence favours the foremost and it is therefore possible that the early Iron Age settlement may represent an agglomerate type of settlement comprised of several different contemporary occupations. This suggestion is strengthened by the earlier-middle Iron Age settlement at Site G, comprising three ring ditches, which may also represent three different contemporary occupations. The relatively large scale of settlement was maintained from the early Iron Age to the earlier-middle Iron Age. This multiple occupancy is in contrast to the similar type of settlement, albeit on a smaller scale, at Chatteris where a 'lower order' settlement hierarchy was proposed, presumably as a single occupation (Atkins and Percival 2014). It also cannot be known with any degree of certainty that houses in the same settlement or adjacent settlements were all occupied at the same time, as the pottery and other artefacts are not closely dated.

Early Iron Age agglomerate settlements, which might have comprised several extended families, appear more frequently across the region (Medlycott 2011, 29). At Sites D and G settlement may have been of a 'higher order' than at Chatteris, but at the same level in terms of population as some other early Iron Age agglomerate settlement sites, albeit with contrasting types of features. Settlement hierarchy in the early and middle Iron Age may indicate patterns of differing social organisation linked to settlement form such as those in Oxfordshire (Hingley 1984) and north-east England (Ferrell 1997).

New permanent settlements were being established in the late Bronze Age/early Iron Age where there had not been previous permanent occupation. Sites D and G fall within this bracket and compare favourably in size to regional examples, although the type of features differed. At Biddenham Loop there was a roundhouse,

four- and two-post structures, and numerous pits in a variety of forms over 1.3ha (Luke 2008, 32). At Fairfield Park, Site B, the main early Iron Age occupation was from the 5th century BC when most of the roundhouses, enclosures, four-post structures and many pits were in use (Webley *et al.* 2007, 17, 138 and 141). At Linslade, Site B, there was a single roundhouse with a 12m diameter dated to 540–370BC (Moore *et al.* 2007, 9–10). A small excavation at Gold Lane, Biddenham, also uncovered a late Bronze Age/early Iron Age enclosure that was subsequently recut on a slightly different alignment, postholes scatters and a few pits were present, but there was no firm evidence for buildings (Dawson 2004, 9–12).

The quantity of evidence at Sites D and G exceeds those sites described as 'temporary' settlements in the county. At Linslade, Site A, there were four pits within the 8th–6th centuries BC (Moore *et al.* 2007). Whether certain sites were seasonal or permanent is uncertain, and this may be true of the settlements at Sites D and G. At Chatteris it was uncertain if settlement was permanent and occupied by a single family or seasonal and occupied by more than one group (Atkins and Percival 2014, 35). At Biddenham Loop an organised open settlement was found and comprised post-built structures and pits within which were a limited number/range of artefacts. It was originally thought the site was seasonal but after further work this view has changed (Luke 2008, 32–4; Luke 2016, 147–8). At Sites D and G the lack of post-built structures or ring ditches may suggest the pits relate to short-lived episodes of activity. Later-middle and late Iron Age structures at Site G may imply more permanent occupation.

Earlier-middle Iron Age (c.400–300/250BC)

Occupation at Site G was probably already at least semi-permanent by the earlier-middle Iron Age within the area where three loose groups of pits, including pit cluster GPC1, had been. Settlement was also established at Site K, 3km to the east, but only a very small part of this settlement was investigated.

The middle Iron Age at Site G was divided into an earlier period and a later period. Coincidental with this were two distinct types of pottery, which guided this sub-division. The date of this crossover is likely to be a gradual changing trend in decorative fashion, rather than a specific sudden change in production methods or materials at around 300–200BC.

In the earlier-middle Iron Age, settlement at Site G was unenclosed and comprised three roundhouses, a small sub-rectangular enclosure and some pits; all located over a linear sub-rectangular area *c.*150m long by 50m wide, and aligned north-east to south-west. The ring gullies were spaced apart and the features were spread across this area evenly (Fig 3.15). At Site K a few features of this period were uncovered.

The sub-division for the middle Iron Age at Site G (and Site K) is in contrast to Biddenham Loop (Luke 2008; 2016), where the middle Iron Age was a single undivided period (*c.*400–100BC) and the pottery was not divided between earlier and later decorative forms. The two middle Iron Age settlement sub-phases at Site G are very different in plan and layout with the site changing from an open settlement into an enclosed one (Fig 3.18). The ability to sub-divide Site G makes comparison with previous excavations, where there has been no sub-division, cautious.

Location of the earlier-middle Iron Age settlement

The earlier-middle Iron Age settlement was established at Site G, but not at Site D. Previous settlement remains were relatively few and scattered within Site G, whereas at Site D there had been a more dense spread of features, especially pit clusters.

Site G held a topographically higher location. Dawson (2007, 63) notes that in the middle Iron Age in Bedfordshire there was a preference for higher ground, the sides of river valleys and avoidance of the flood plains. Site G lay upon a low natural flat plateau in the valley at 100–102m aOD, *c.*2.0m higher than at Site D. The Ouzel Brook flows roughly parallel to Site G, *c.*500m to the south at *c.*95m aOD. The valley sides rise to the north and north-east of Site G to a height of *c.*135m aOD. Settlement at Site K was at the top of the valley at *c.*130–132m aOD, close to the source of the brook. The locations of the earlier-middle Iron Age settlements were similar to those at Biddenham Loop, which were adjacent to, but above, the river flood plain (Luke 2008, 38).

Comparisons between open settlements

Site G, and possibly Site K, were open settlements during their earlier occupation. This unenclosed form was common in Bedfordshire with comparisons including Salford (Dawson 2005, 45) and Biddenham Loop (Luke 2008, 39), and also across the region (Bryant 1997, 25). The extent of the Site G settlement (150m by 50m), the number of features (three roundhouses, an enclosure and some pits) is similar to the contemporary settlement at Hinksley Road, Flitwick, which dated from the 5th century BC onwards (Luke 1999; Fig 3.58). At Flitwick three roundhouses were found over an area of *c.*100m by 40m, and associated with them were eight pits and a linear ditch (*ibid*, fig 3). Luke considered the three roundhouses to each represent a separate farmstead (*ibid*, 47), but it is similarly uncertain whether those in Site G were in the same vein.

The Site G settlement appears small in size in regard to its extent and potential population. Several comparable sites seem to be of a similar size or far larger, with few settlements beinge smaller. Settlements of greater extent or population than Site G include Linslade, Site B, where the early–middle Iron Age settlement comprised four or five roundhouses within an area *c.*100m by 60m, with further ring gullies outside this extent. The unenclosed settlement contained roughly a dozen pits and few linear ditches. Pottery dated from *c.*5th–3rd centuries BC, corroborated by radiocarbon analysis (Moore *et al.* 2007, 10-19). Some settlements were very extensive in size including Fairfield Park, Site A, where the main early Iron Age occupation was from the 5th–4th centuries BC when there were many roundhouses, five enclosures, four-post structures and many pits including some for storage (Webley *et al.* 2007, 17, 138 and 141). At Topler's Hill, south of Biggleswade, an earlier-middle Iron Age settlement and contemporary field system comprised at least eight interlinked enclosures aligned north-west to south-east, perhaps representing different family units. There were some internal boundaries as well as roundhouses and areas of pits. Cropmarks suggested an arable system extended over *c.*10ha (Luke 2004 including fig 4). At Salford the 5th–2nd-century BC settlement was open and was the most extensive of any period there, with *c.*10 drip gullies and one post ring building. How many of these were in use at any given time was uncertain (Dawson 2005).

Settlements possibly smaller in size include Hill Lane, Broom, which mainly comprised pits and a single roundhouse (Cooper and Edmonds 2007). Biddenham Loop, Farmstead 1, comprised two roundhouses and a concentration of pits (Luke 2008 including fig 2.7). At Gypsy Lane, Broom, the northern settlement comprised four ditched enclosures and a roundhouse, boundary ditches and 20 pits established over the period *c.*400–200BC (Cooper and Edmonds 2007, 149–185).

Middle Iron Age settlements were far more numerous than early Iron Age settlements. Whilst Site G had its main origins and seems to have been a continuation of the early Iron Age occupation, many middle Iron Age settlements had far less evidence of earlier activity or occupation. These latter settlements sometimes only had evidence of up to two or three early Iron Age pits in the same location as subsequent settlement. Examples include Potton Road, Biggleswade (Fairclough 2017), and Norse Road, Bedford (Edgeworth 2001).

Understanding population

If all three roundhouses in Site G were contemporary this would imply a maximum of three family groups, assuming one family unit per roundhouse. Alternatively the population could be much smaller if different roundhouses were for different household functions or for sub-units of a family group (i.e. all male, all female, elders hut etc.). The early Iron Age settlement was possibly an agglomerate site dispersed over a far greater area, and if that occupation was fairly continuous, then subsequent nucleation to Site G implies that the extent of further settlement within the valley may be expected over a far wider area than is presently known. Contemporary settlement was established at Site K, 3km to the east, and this indicates new land was being occupied. This observation suits the general trend for increasing settlement along the river valleys and in the claylands (Luke 2008, 38). The increase was noted by Dawson (2007, 64) in that "settlements are becoming more substantial with sites like Salford probably growing beyond the level of farm or farmstead". At Biddenham Loop the single late Bronze Age/early Iron Age settlement grew to eight unenclosed farmsteads in the middle Iron Age, although it was not known if all were contemporary (Luke 2008, 38; 2016, table 4.6).

Internal arrangements within the settlement

At Site G the three ring gullies and enclosure GENC1 were of roughly equal distance apart, suggesting some degree of organisation. Similarly at Biddenham Loop the layout of the six farmsteads was considered to require a certain degree of planning (Luke 2008, 39). Organisation and spacing was noted at Salford where the roundhouse, four-posters and pits all occupied separate locations (Dawson 2005, 165).

The Site G ring ditches were *c.*8.0–10.5m across, at the smaller end for roundhouses in the region, which range from 8.0–14.0m in diameter (Webley *et al.* 2007, fig 6.3). Fairfield Park's early Iron Age ring ditches ranged were 8.3–13.9m across (*ibid*, 143). This is also a similar size to Flitwick's three ring ditches that were 10.0–12.0m across (Luke 1999, 48). Topler's Hill had five roundhouses located in three enclosures with two that were *c.*13.0m in diameter and one that was 18.0m (Moore *et al.* 2007).

The entrance of only one ring ditch in Site G, which faced east, could be discerned (GRD1), with the entrances of the other two unknown due to truncation. All four discernible entrances at Fairfield Park faced east, on a bearing of 95° and 105° from north (Webley *et al.* 2007, fig 6.5).

One roundhouse in Site G (GRD1) was stratigraphically dated to this period whilst the other two contained only small quantities of pottery and the lack of artefacts contrasts with some roundhouses from other sites. Here, the entrance to roundhouses and enclosed spaces were commonly a focus for concentrations of material (Hill 1995). Other examples include Broom, Gypsy Lane (Cooper and Edmonds 2007, fig 5.33) and Fairfield Park (Webley *et al.* 2007).

Enclosures in this period seem to have been fairly small. There was a single small sub-rectangular enclosure in Site G which measured *c.*17m by 11m with no sign of any internal features. The enclosure ditch was fairly large at up to 1.7m wide and 0.95m deep and its size may suggest it had been used as a paddock. At Site D a possible enclosure (DED2) seems to have been *c.*17m long and at least 12m wide, probably oval or sub-rectangular in shape, but the ditch was far smaller at up to 1.1m wide and 0.45m deep.

At Gypsy Lane, Broom, the four middle Iron Age enclosures were of a similar extent to the Site G and D enclosures, although their shapes varied to sub-rectangular, square and sub-oval (Cooper and Edmonds 2007, 155-163). Other comparisons include Topler's Hill where its enclosure was of a similar size but the ditch was far larger at *c.*4.3m wide and 1.5m deep (Luke 2004, 47). The Site D enclosure may have been part of a field system, *c.*100m to the south-east of the unclosed settlement at Site G. The lack of wells or waterholes and other features makes the interpretation between arable and pasture difficult.

Most of the pits recorded at Site G were relatively small scoops. This is a common occurrence recorded at other comparison sites, with the note that specific functions of the numerous shallower pits was uncertain e.g. Fairfield Park (Webley *et al.* 2007, 145). At Site G a few of the pits were basin-shaped and some definitely dug for storage. The latter comprised large, vertical-sided pits which were flat-bottomed, including G[1119] at 1.30m in diameter and 0.50m deep. At Site K there were two bell-shaped storage pits. All of these are comparable to pits recorded elsewhere, including at Biddenham Loop and Pennyland (Luke 2008, fig 2.9). At Biddenham Loop all six farmsteads were characterised by the presence of storage pits (Luke 2008, 39). Fairfield Park had early Iron Age pits at Sites A and B that were thought to be for storage, described as "numerous deep, bell-shaped or cylindrical pits...a few of which showed traces of clay lining" (Webley *et al.* 2007, 145). In Sites G and K no pit lining survived, if it ever existed.

Dawson (2005) notes that storage pits were a common feature of early–middle Iron Age sites in the region, although they were generally absent from those sites located on poorly drained soils (e.g. Salford). At Salford there were three pit groups comprising just 11 pits, all located in the south-eastern area of the excavation, and these were given a wide date *c.*5th–2nd centuries (Dawson 2005, 70-76 and 166). Dawson notes that some of these pits were not for storage as they were up to 5m in diameter and more than 1m deep, considered more likely to have been waterholes (Dawson 2005, 70-76 and 166). The substrate at Site G was relatively well draining. The largest pit in Site G was 3.5m long, but the deepest was only 0.78m, perhaps unlikely to be possible waterholes. Site G did not have poorly drained soils so the reason for the few pits, including for storage, is unknown.

Economy of the settlements at Sites G and K

Relatively little can be hypothesised about the economy of Site G as the quantity of artefacts and ecofacts recovered was relatively low. The artefacts largely came from one enclosure and two pits, showing deliberate deposition in certain locations. A moderate quantity of pottery was recovered, but the amount of animal bone was not large enough to indicate what had taken place in the settlement. The bulk environmental samples at both Sites G and K produced very few charred grains, including cereals and chaff, which were thought to have blown into the features from scattered refuse. No querns were found. A single brooch and a few fired clay fragments were recovered. In all, the relatively scarce quantity of artefacts strongly suggested that quantities of refuse were not apparent.

A small to moderate quantity of animal bone was found. Cattle and sheep/goat constituted the majority of the remains at Site G with small amounts of pig, dog and horse. The evidence suggests that cattle and sheep/goat were slaughtered after they had reached maturity, probably reared for meat and secondary products, although the small sample makes this conclusion tentative particularly at Site K where the limited excavation area precluded statistically accurate data.

On balance it is likely that a mixed economy occurred at Sites G and K, which would have been normal for this period (Hill 1995, 60). Little data were able to be obtained to inform understanding of the plant economy; a pattern commonly observed at sites of this period. At Biddenham Loop the charred plant assemblage provided only limited evidence for the nature of arable farming (Luke 2008, 39), but in contrast to Site G, the animal bone assemblage had a relative abundance of cattle, sheep/goat and pig (Luke 2008, 39). Mixed farming was also undertaken at Topler's Hill (Luke 2004). At Fairfield Park, Site A, the pollen and mollusc analyses indicated a local environment of arable fields, grassland and disturbed ground, with any woodland at some distance (Webley *et al.* 2007, 141).

The only metal object from this period was a single Iron Type I brooch from a pit at Site D. Site K produced a worked antler comb, probably for weaving, and a small ceramic bead. The minimal number of non-pottery artefacts was not unusual for the county, which has led to the statement that apart from ceramic finds, artefacts from settlements are few (Dawson 2007, 64). Hinksley, Road, Flitwick phase 2 produced very little in the way of pottery, no other artefacts and small quantities of animal bone (Luke 1999). At Fairfield Park

pottery was by far the most abundant artefact type on both Sites A and B (Webley *et al.* 2007, 147). Most of Salford's assemblages derived from drip gullies with only a few ceramic sherds occurring in other features (Dawson 2005, 166).

LATER-MIDDLE IRON AGE (C.300/250–100BC)

Site G settlement was re-planned and moved from open settlement to one partially enclosed. It was linear in plan, aligned north-east to south-west and measured over 210m by 90m in extent. The settlement had partly shifted its location westwards, still occupying the same area as the western half of the earlier open settlement, but not the former eastern extent.

The partly enclosed nature of the later-middle Iron Age settlement consisted of segmented linear south-eastern and south-western external boundaries within which there were five probable roundhouses, three enclosures, internal boundaries and pits and postholes. The other two sides of this settlement were seemingly open with no boundary ditches.

The change from open settlement to enclosed or partly enclosed settlement was also observed elsewhere in Bedfordshire including Hinksley Road, Flitwick phase 3 (Luke 1999, 49). At Flitwick the enclosed settlement also overlaid part of its former open settlement. Some settlements shifted further than Site G or Flitwick. At Linslade the settlement moved in the middle–late Iron Age from an unenclosed site by 200m northward onto virgin ground (Moore *et al.* 2007, figs 7and 14).

The layout of Site G in the later-middle Iron Age and the late Iron Age shared many of the same characteristics with Potton Road, Biggleswade (Fairclough 2017; Fig 3.67). The extent of both sites was nearly identical; the settlements were linear in nature and aligned north-east to south-west. The middle Iron Age at Biggleswade has one phase (Fig 3.67), but was only recently excavated and the assessment report did not subdivide the period. Site G and Biggleswade both had a main linear segmented boundary which linked/respected small sub-rectangular enclosures with unenclosed roundhouses external to these enclosures.

All other plans of middle Iron Age settlements in the region have some similar characteristics but few are the same. This shows the large diversity and uniqueness of settlement arrangements on most middle Iron Age sites. At Pennylands and Hartigans, for example, whilst the size of the settlement was similar to Site G, as was its alignment and the number of enclosures, the settlement's layout was based on a routeway as its focus with the enclosures extending on both sides (Williams 1993). The linear layout and the settlement alignment, north-east to south-west, occurs on several sites including Site G. At Hinksley Road, Flitwick, phase 3, the settlement was significantly smaller and largely comprised a few linked enclosures (Luke 1999). Other contemporary sites were very different like Norse Road, Bedford, phase 2 where a routeway funnelled into a singular very large enclosure, 130m by 80m in extent (Edgeworth 2001).

The diversity of settlements remained; some sites became smaller in extent, and many also continued to be unenclosed. This is true of Fairfield Park which was unenclosed and had declined by the 4th–3rd century BC to a single roundhouse and two enclosures (Webley *et al.* 2007, 53).

INTERNAL DOMESTIC OCCUPATION AND PASTORAL FARMING ACTIVITIES

Pastoral farming was an important part of settlement in this period. The settlement of Site G was enclosed on two sides by segmented ditches, especially its south-eastern side, for over 155m. Along this boundary there were six gaps varying in size that may have had different functions that presumably allowed access into and out of various parts of the settlement. This ranged from two abutting ditches, 0.2m wide apart, to three possible pedestrian entrances at 1.2–2.0m wide, and two large entrances over 5.8m wide, located near the southern corner of settlement.

This segmented arrangement also occurred at Potton Road, Biggleswade, where access into the site from the south-eastern side was through a segmented boundary ditch linked to paddocks or enclosures (Fig 3.67).

The two boundary ditches at Site G fronted the area before the brook, located roughly parallel some 500m away to the south. The settlement was visible from this watercourse and cattle may have grazed on its meadow. The site's only possible waterhole in this period, G[1766/1777], lay *c.*10m to the south-east of the two larger entrances.

Internally the Site G settlement was divided into two main areas. Two adjacent ring ditches were isolated from other features at the north-eastern end, and the remaining roundhouses and enclosures lay in the other two-thirds of the site. The number of roundhouses increased from three to five. These roundhouses were set out in a vague line within the settlement across three areas, although not individually within separate enclosures. The roundhouses were of different sizes: *c.*8m, *c.*8.8m, *c.*11.5m and *c.*13m in diameter. At Hinksley Road, Flitwick, the two roundhouses had diameters of 11–12m (Luke 1999, 51). It is possible they comprised separate contemporary family units accounting for the significant extent of the farmstead, much larger than some comparable settlements (Fig 3.59).

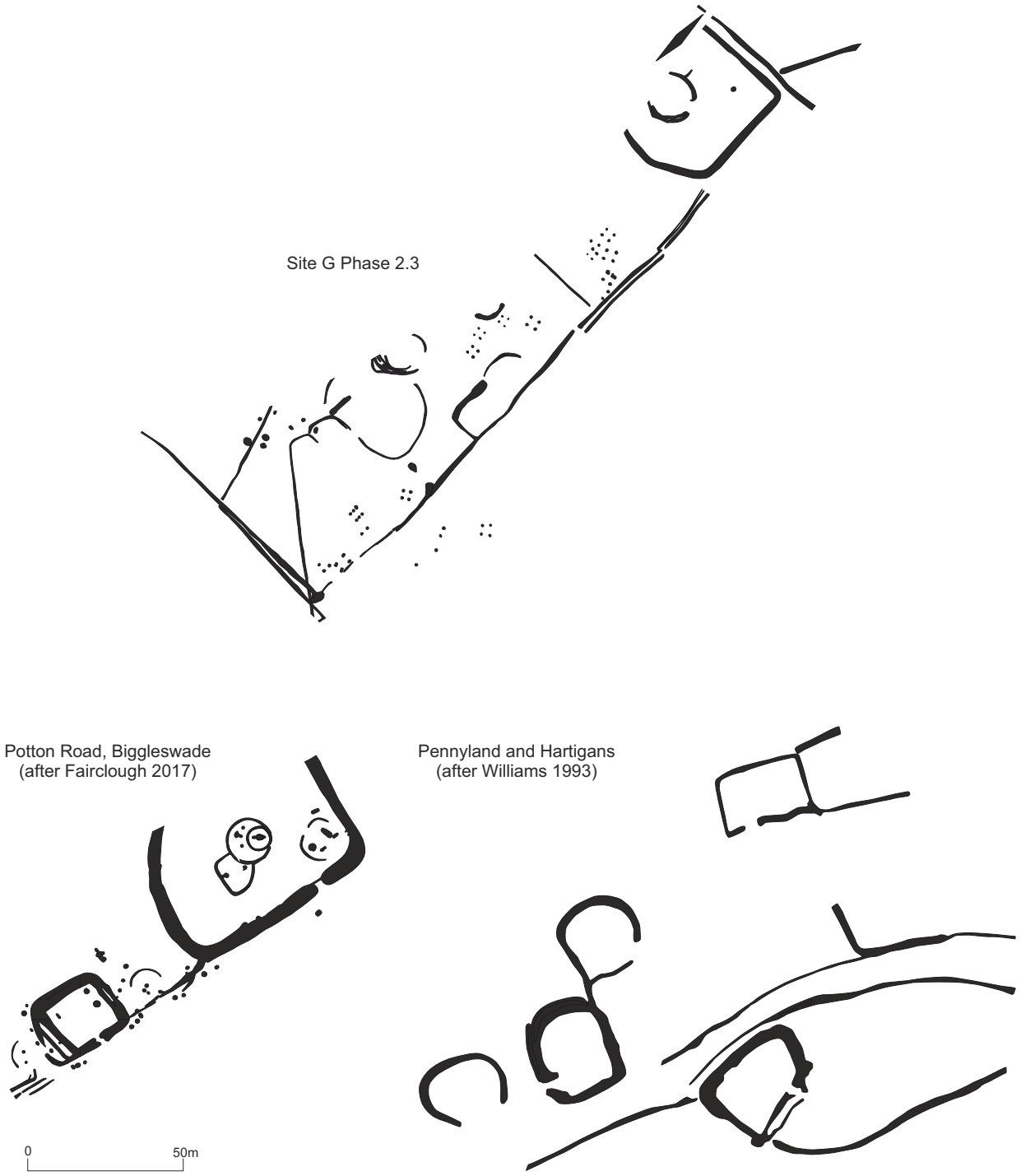


Fig 3.67 Comparisons of contemporary sites

A population increase in the later-middle Iron Age might be substantiated by the rise in the number of enclosures from one in the earlier-middle Iron Age to three in the later-middle Iron Age. The three enclosures (GENC2–4) were all different in shape and size. GENC2 was sub-rectangular, *c.*18m by 12m whose ditch was up to 1.6m wide and 1.0m deep. An oval enclosure (GENC3) was 17m in diameter and its ditches varied in size from 0.35–1.0m wide and 0.12–0.55m deep, and GENC4 was C-shape, *c.*25m by 12m. At Hinksley Road, Flitwick, there were up to six enclosures of varying size; five were intercutting and the sixth contained two roundhouses (Luke 1999, fig 5). At Biddenham Loop the shape of the enclosures also varied and their ditches were of contrasting sizes (Luke 2016, table 4.10 and fig. 4.20).

It is uncertain why the enclosures were of different shapes; they could represent paddocks or small areas of cultivation within the settlement. The smallest

enclosures might have been expected to be accompanied by banks, hedges or even fences to provide effective, stock-proof barriers. Evidence for this was lacking and the number of pits overall was very few, especially those located within the settlement where only six were dated, mostly on stratigraphic grounds, leaving their purpose unclear.

Field systems at Site D

At Site D, 100m to the south-east of the main settlement, there was a large enclosure and three ditches that probably formed part this settlement's field system. Only a very small percentage of this enclosure was within the excavation. The small number of artefacts from features at Site D was insufficient to suggest a separate domestic settlement site.

The enclosure had a slightly irregular trapezoidal shape at *c.*63m by 47–53m wide and substantial ditches at up to 3m wide and at least 1.30m deep. This enclosure was of far greater size than those enclosures within Site G. Presumably large scale farming occurred between the settlement and the brook. A stock corral was hypothesised for a middle Iron Age rectangular enclosure at Cambridge Road, Bedford, which contained very few internal features and scarce pottery or animal bone (Chapman and Chapman 2017, 67–8). This enclosure was in excess of 41m by 29m and its ditches were 1.10–1.68m wide by 0.50–0.90m deep.

Environment and economy

Most features within Site G were situated in an open, short-turfed grassland habitat. Analysis of environmental bulk samples found no evidence of arable farming occurring within the settlement's enclosures and presumably these activities occurred elsewhere. This is not surprising, considering the features lay within a settlement that seems to have been orientated to pastoral farming and presumably the land was given over to grazing with little resort to fodder crops or animal feed. Samples 26 and 28 from GD6 and GENC3 suggest these features were damp or seasonally filled with water. A high water table would negate the need for watering holes, perhaps explaining why only a single watering hole was found.

The artefacts were almost entirely of a utilitarian nature with a moderate assemblage of pottery dominated by fine sandy fabrics comprising storage jars and a smaller proportion of coarse sandy wares, largely consisting of some smaller jars and bowls with smoothed or burnished surfaces.

Part of a possible triangular loomweight is the only distinct evidence for craft production from the site. A single non-ceramic object was found; a blue glass bead from ditch GD6. The number of worked bone objects is also extremely low; one is a rib blade from ENC3, which may be residual as they are often dated to the late Bronze Age/early Iron Age; the other is a fragment of a bone handle, a cut from the proximal end of a horse metacarpus and is a comparatively rare find.

A small to moderate quantity of animal bone was found. Cattle and sheep/goat constituted the majority of the remains. There was an increase in pig numbers compared with the earlier-middle Iron Age, but the sample was still small. There were also a few dog and horse bones. The study of the cattle suggests a husbandry strategy geared towards traction and dairying, where surplus and ageing animals were culled for meat. A congenital trait was noticed in the bones that suggest there had been a lack of genetic diversity in the breeding stock as a result of crossbreeding. Probable butchery waste was deposited in the middle of the settlement within the backfill of two adjacent features (RD6 and ENC3).

Late Iron Age (c.100BC–AD0)

The late Iron Age was a period when there was seemingly an increase in the number settlements locally. Whilst the Site G settlement and the nearby fields systems continued in occupation until *c.*AD0, a separate settlement was established at Site Q *c.*100BC (see Chapter 6).

Chapter 3 stops at AD0 and does not continue into latest pre-Roman Iron Age (*c.*AD0–43) as Site G was abandoned before Roman rule. This is important as activity in this latest Iron Age occurred at Sites F, H, P and M1 Junction 12, but ceased at Site G.

Late Iron Age settlement at Site G

Site G settlement was enlarged from *c.*100BC and for the first time this linear settlement became fully enclosed. The later-middle Iron Age settlement area was extended on its north-eastern side to include a significant sub-rectangular enclosure that had an internal roundhouse. The reoccupation of Site G is not only unusual for Bedfordshire, where settlement shift was common, but also in the region (Luke 2008, 46).

Examples of shifting late Iron Age settlement include Hinksley Road, Flitwick, the final settlement seems to have moved with only the field systems occupying the former settlement area (Luke 1999). At Fairfield Park, occupation shifted westwards to Site C where a rectilinear enclosure system was laid out (Webley *et al.* 2007, 137). At Biddenham Loop the six early–middle Iron Age settlements were reduced to five late Iron Age–early Roman settlements, all located within a new area (Luke 2008, 45-6). Even the similar planned

settlement at Potton Road, Biggleswade, moved to the north of its original foundation (Fairclough 2017).

Site G is probably unusual in the number of times it had been substantially altered in its 600 years of use and occupation. There were four main episodes with each exhibiting gradual change and development. In contrast at other excavated sites the layout was static over a far longer period of time, with relatively little re-planning. This was in particular true of the middle and late Iron Age periods, where no site changes were apparent; e.g. Linslade (Moore *et al.* 2007) and Norse Road, Bedford (Edgeworth 2001).

At Site G the late Iron Age settlement was more extensive than previous occupation and in this respect it was similar to many other settlements in the county, including Biddenham Loop (Luke 2008, 46). This phenomenon of increased expansion and intensification of settlement occurs regionally in Eastern England (Bryant 1997, 27) and nationally (Haselgrove *et al.* 2001, 29).

Former roundhouses and most of the later-middle Iron Age enclosures or paddocks were abandoned. One enclosure (GENC3) survived, recut, but five additional enclosures were constructed within the settlement. Boundary ditches at Site G were relocated on all four sides of the settlement with the two former later-middle Iron Age boundaries recut and additional boundaries inserted at the ends of the settlement. The segmented arrangement of the ditches continued along the south-eastern boundary, while the other three boundary ditches were continuous. This strongly suggests a pastoral element to the economy remained. Cattle and horses were presumably spending some time at pasture and at other times entered via the south-eastern segmented boundary ditch.

Sub-rectangular enclosure at Site G

The addition of a sub-rectangular enclosure was a major undertaking, not least because it had been partially constructed over two later-middle Iron Age roundhouses. This enclosure measured *c.*48m by 43m with the enclosure ditch up to 4m wide and 1.7m deep, which suggests it was a substantial physical barrier, perhaps also making a large visible statement. Most of the enclosure was excavated, but the entrance into the enclosure, possibly 5m wide, was only recorded in the geophysical survey on its north-western side. This entrance was located, perhaps significantly, on the opposite side to the Ouzel Brook and away from the segmented south-eastern boundary ditch. In this period large ditched enclosures were constructed in many settlements within the eastern region (Bryant 1997, 28), and across the East Midlands, including Wootton Hill type settlements (Cooper 2006). The development and use of this type of large 'defensive' enclosure took place at the same time as late Iron Age tribes were in conflict, and as the Catuvellauni tribe took over almost all of Bedfordshire.

The size of this sub-square enclosure at Site G is similar to Queen Street, Stotfold, where there was a middle–late Iron Age enclosure, 48m by 44m in extent, with its ditches up to 3.5m wide by 1.0m deep and with an internal central roundhouse (Gibson and Powell 2017). At Potton Road, Biggleswade, Enclosure E2 was larger in size, 66m by over 38m, with a ditch 2.5m wide by over 1.5m deep. This enclosure had gone out of use by the late Iron Age, which may mean these 'defensive' features started towards the end of the later-middle Iron Age (Fairclough 2017). In contrast Farmstead 5 at Biddenham Loop had a large ditched enclosure c.50m by over 40m with an internal roundhouse; the ditch was fairly shallow and so does not exhibit the same characteristics (Luke 2008, 46-7).

In neighbouring Buckinghamshire large rectangular enclosures were of a similar time period to Site G, generally dated *c.*100BC–AD43 (Kidd 2010, 58). At Broughton Manor Farm, Milton Keynes, a large sub-rectangular enclosure was 45m by over 24m in extent, with the ditches up to 2.9m wide by 1.22m deep, and with a 3m wide entrance (Atkins *et al.* 2014, 66-7). At Wavendon Gate, Milton Keynes, the late Iron Age enclosure that had an internal roundhouse was 75m by 30m in extent, with a ditch up to 2.5m wide by 1.0m deep (Williams *et al.* 1995, 18-21). At Brooklands, Milton Keynes, enclosure 1196 measured 69m by 61m and its ditches were 1.20–4.67m wide by 0.10–1.08m deep (Atkins *et al.* 2014, 74).

The single internal roundhouse at the centre of the Site G enclosure was of the same configuration to many others, including Queen Street, Stotfold (Gibson and Powell 2017). The inhabitants of this roundhouse may well have been the dominant family in the settlement. The Site G roundhouse was not especially large, *c.*11m in diameter, although other examples were only marginally larger including Stotfold and Broughton, Milton Keynes, where roundhouses were *c.*12m in diameter (Gibson and Powell 2017, 39; Atkins *et al.* 2014, 66).

These enclosures seem to have gone out of use roughly at the same time at around AD0 or just after. The similar enclosure at Queen Street, Stotford, was largely abandoned by the late Iron Age, with a latter early–middle Roman field system built on the site (Gibson and Powell 2017). At Broughton, Milton Keynes, the enclosure went out of use *c.*AD10 and a settlement with associated cremation cemeteries was constructed to its east (Atkins *et al.* 2014). At Linslade enclosures and routeways went out of use before Roman rule (Moore *et al.* 2007, 33).

INTERNAL LAYOUT OF SETTLEMENT AT SITE G

The main internal area of Site G was separated with at least one partition. Additional enclosures were built, presumably relating to the agricultural function of the settlement. The density of internal features increased compared with earlier phases on the site.

At Site G one of the main internal changes comprised a dramatic increase in the number of postholes, and to lesser extent pits, when compared with a handful of such features in the later-middle Iron Age. There were at least seven four-post structures constructed, and at least one six-post structure, such posthole buildings were not recorded in earlier periods. These structures are often interpreted as granaries or stores on later-middle and late Iron Age sites. A further four-post structure lay just outside the settlement to the south-east, although there were less than ten isolated pits and postholes outside the site's boundaries in total.

LATE IRON AGE BOUNDARIES AND FIELD SYSTEMS

A large field system lay over 250m south-east towards the Ouzel Brook. The ditches stopped 170m before the Brook, presumably meeting with wet ground. Parts of field systems were also recorded at least 100m to the north-east. The field system continued to the south and was observed in drainage trenches (Fig 3.36) continuing beyond the site in this direction. Any fields to the south-west and north-west are uncertain, as it lay beyond the scope of study. Ditches were found in Sites D and M, but there were no enclosures and the former sub-rectangular enclosure at Site D had gone out of use. The ditches within Site M were regularly laid out at *c.*10m intervals and aligned north-west to south-east with a few aligned north-east to south-west. Three of the ditches in Site D were also aligned in this direction. The low ground by the brook would have been predisposed to flooding and waterlogging, so it would have been ideal meadow for seasonal grazing.

The probable late Iron Age boundaries at Sites J and P also headed towards the Ouzel Brook, recorded over a distance of more than *c.*100m by geophysical surveys and targeted excavation. Unfortunately the excavations were not extensive and no significant comparisons between sites can be made.

ARTEFACTS FROM THE IRON AGE SETTLEMENT AT SITES D AND G

In the late Iron Age the quantity of artefacts recovered from Sites D and G was moderate, but they predominantly comprised pottery sherds. There were finds from craft activity such as an iron awl from Site D; a possible punch for heavy duty leather or metal working. Similarly, a bone splinter awl from GENC3 may have been used in the piercing and marking of soft materials, including leather, textile or basketry. The only blade is from GENC8 made from animal bone.

A canine tooth with a drilled hole was found in GENC8, possibly a religious artefact or medicinal talisman.

Chalk was used widely across the chalk regions, as either rubble core for walls faced in stronger materials, or as an attractive way to easily provide fine jointing and smoothed surface. As a comparatively soft stone it is easily broken down by inclement weather, frost and smoke. Harder varieties of chalk, such as those primarily found in Cambridgeshire, were known as clunch, and remained in use into the post-medieval period as a suitable medium for elaborate window mullions and door surrounds, largely confined to internal work (Clifton-Taylor 1987).

Aside from its use as a construction material, chalk was also pulverised and mixed with mud and straw (Clifton-Taylor 1987). Chalk mud, up to three-parts chalk and one-part clay, provided higher durability than cob or daub. Chalk mud requires a stone or brick base and needs protection from above using thatch or tiles. The construction methods of chalk mud are variable; in parts of Buckinghamshire, chalky earth mixed with straw was known as *wichert* and was used in much the same way as cob, without shuttering and laid down as layers. In the Wiltshire Downs, chalk was pugged with water and poured between pairs of boards, compacted, and left to dry (Clifton-Taylor 1987). In parts of East Anglia and south Cambridgeshire a chalk and clay mix was moulded into large unbaked bricks. Chalk could also be used as a constituent of roughcast which was used as a protective daub on mud-built structures. An advantage of pulverised chalk over chalk masonry was that easily obtained surface chalks were suitable for this purpose whereas chalk-stone required its extraction from deeper stratigraphy.

Some of the chalk and chalky clay recovered from Site G appears to suggest its use as a daub on wattle walls or as a form of whitewash which could be plastered on internal walls of roundhouses in order to improve reflected lighting and kill pests. A roundhouse reconstruction at the Peat Moors Centre, formerly in the Somerset levels but now closed, was lime-washed, proving a huge difference to the light level inside compared to reconstructions where the walls are left as bare brown clay. When used as daub the ground up chalk would be mixed with clay, straw and other binders such as horsehair and the resulting plastic mixture would be pressed into the wattles and left to solidify. Some of the larger clasts of chalk may suggest their use as a form of rubble core in stone walls.

Chalky clay could have been used to line the storage pits at Site K, or as a covering, perhaps held in place

by a wattle structure. Later burning of a quick high combustible nature would have rendered the material to its present semi-fired state.

CRAFT ACTIVITIES FROM SITES D, G AND K

The archaeological evidence from Sites D, G and K suggests that in addition to both pastoral and arable farming, the processing of grain and small-scale craft activities were undertaken off-site nearby. The artefacts recovered allude to leather working, the manufacture of textiles and possibly the production of pottery, all presumably undertaken to cater for requirements of the inhabitants. The tools were concentrated within the footprint of the Iron Age farmstead (Site G), and a small number were from outlying boundary ditches and pits associated with Sites D and K (Table 3.19). The artefacts represented are paralleled at similar dated sites in the region.

With the exception of one of the two awls, there were no metal tools, perhaps indicative of its value. The majority of discarded tools are manufactured from animal bones (sheep/goat, horse, cattle) and antler (roe deer), a readily available resource to be utilized but also non-recyclable. Finds for leather working are represented by a bone splinter awl and an iron awl, both types for the piercing of leather, the former for delicate work and the latter for heavy duty work or even for thin metal (Sellwood 1984a, 354).

The evidence for other crafts is limited. A ceramic loomweight and a weaving comb would have been used in textile production, perhaps on a warp-weighted loom. The rib blade may have been used a burnisher for ceramic vessels. With the exception of an amber bead and the cobalt blue glass bead there is little that would clearly have been imported to the site.

Table 3.19: Artefacts indicating craft activities, Sites D, G and K

Activity	Site D	Site G	Site K
Leather working			
Splinter awl (bone)	-	<S45>	-
Awl (iron)	<S7>	<S14>	-
Working surface (antler)	-	<S26>	-
Textile manufacture			
Weaving comb (bone)	-	-	<S3>
Triangular weights	-	<S51>	-
?Pottery manufacture			
Rib blade (?burnisher or ?spatulae)	-	<S50>	-
Other tools			
Pointed blades (bone)	<S8>	<S49>	-
Handle for tanged tool (bone)	-	<S37>	-

REVIEW OF PROJECT OBJECTIVES

One of the principal objectives for Iron Age studies has been to advance the chronology of the middle Iron Age through the study of ceramic type series and use of radiocarbon dating. This work feeds into a growing framework for cross comparison of ceramics, decorated metalwork and scientific dating (Oake 2007, 10-11). Early diagnostic sherds were identified that contribute to a wider typology and these are tied to dated deposits within the stratigraphic sequence of site development. Further work is required and needs to tie in other highly datable artefact types where they are found in the county.

Early and earlier-middle Iron Age pit clusters are known more widely across the region, but occur rarely in Bedfordshire. Their occurrence as the first apparent phase of settlement is significant, although their contents do not clearly elucidate their purpose. The pits, for whatever reason they were created, were filled with a mixture of both domestic and craft related waste with no clear indications in the environmental evidence to determine a specific activity. The inclusion of stray human bone elements amongst material that is otherwise midden waste is also curious and indicates a very different attitude to human remains than in preceding or successive periods. Further research is needed to understand these features and how they fit within the wider archaeological landscape. Individually they may also benefit from a more detailed strategy of excavation and analysis to examine finds distributions within the features and test the theory that they are derived from midden waste. If this is true, there needs to be a strategy to identify the source of the material and the settlement from which it derives, although it is recognised that the spatial limits of development confines the extent of investigations that are necessary for mitigation.

The morphological development of Iron Age settlement at Sites D and G have been considered and compared across the region. Discussion has considered settlement growth, consolidation and enclosure (Oake 2007, 11). Whilst this is not quite a case study of nucleated and dispersed settlement patterns, these elements form a component of Sites D and G. The settlement is one of a few known long-lived Iron Age sites where there is evidence for all periods of Iron Age activity. The relationship between settlement enclosure and the surrounding field systems developed at more or less the same time, with a general

trend towards enclosure from the later-middle Iron Age. This is a valuable observation for consideration on future comparison sites. There were, however, no demonstrable relationships between the pit alignments and later boundaries to suggest that one is the development of the other. Pit alignments appear rarely in the county, a single posthole/pit alignment is known from Biddenham Loop, dated by a single sherd of post-Deverel Rimbury pottery (Luke 2008). Dating remains problematic and the A5–M1 pit alignments are not securely dated; pits at Site M may be middle–late Bronze Age, but finds could easily be residual. Attempts to address this disparity in Northamptonshire with the 100% excavation and sampling of pit alignments has not produced significant improvements in the quality or quantity of datable material, and so the conditions under which such extensive techniques are applied should be considered carefully before committing resources.

Chapter 4

A LATE IRON AGE/ROMAN CREMATION CEMETERY AND SETTLEMENT FEATURES AT HARLINGTON ROAD, TODDINGTON

The Iron Age/Roman funerary remains and nearby boundaries

A small late Iron Age rural settlement was established on a north-facing spur of the Ouzel Brook valley probably from the 1st century BC at Site M1A (Fig 4.1). A principal boundary ditch extended along the ridge of the spur, and a cremation cemetery was established at one end, with burials in a loose circular arrangement. On the opposite side of the valley a pyre was raised, burnt and a small cairn of stones was subsequently built on top (Site M1B).

Two rectangular early Roman enclosures were created to either side of the principal boundary from the mid 1st century AD (Site M1A). The cemetery continued in use, but at this time the burials were laid out in rows. Occupation on the opposite south-facing side of the valley began after this time (TWB3). As settlement began to expand in the early 2nd century AD the enclosures gradually began to encroach upon the cemetery, and later cremation burials lay further to the south. The final use of the cemetery and its adjacent enclosures took place in the late 2nd century. Occupation on the south-facing side of the valley continued with pottery from a single boundary ditch suggesting that use of this site may have continued into the 4th century. This chapter discusses the results of the Stage 2 analysis of the investigations at Sites M1A-B and TWB3 (Brown 2011).

Summary

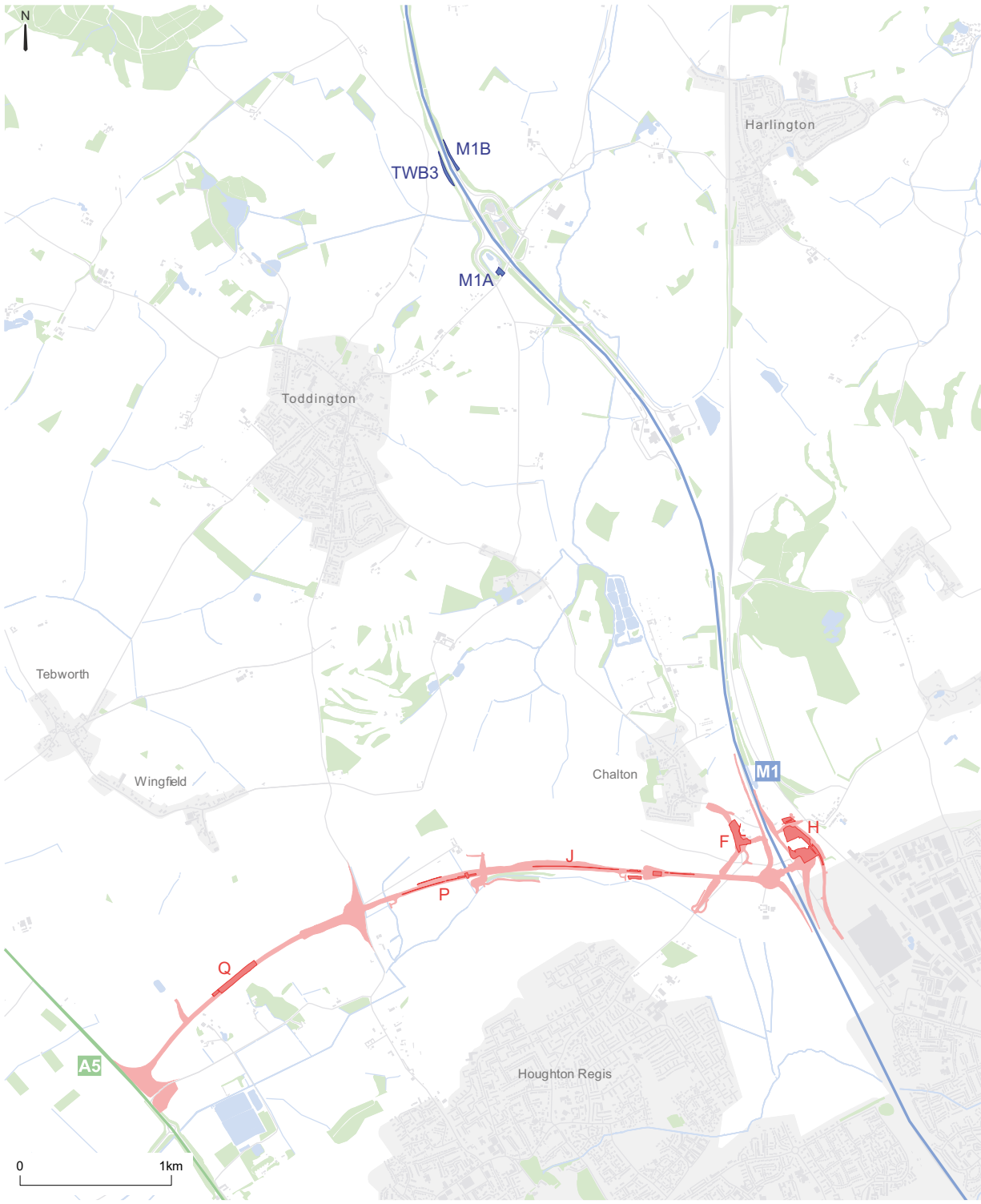
The superficial geology upon the upper slopes and ridges comprises grey-white chalky clay (Anglian till), with colluvial deposits on the slopes and alluvium in the base of the valley. The archaeological and surface deposits were distributed above this geological horizon, with principal features cut into the till. In the valley bottom and on the lower slopes the till is overlain by up to 0.40m mid to dark orange-brown alluvial and colluvial sandy clay. The modern stream cuts through this deposit, indicating that it is the successor of a much older watercourse. No archaeological features were identified below this natural deposit.

The late Iron Age and Roman remains were distributed to either side of the stream valley, with the M1 motorway crossing the valley. There were three principal locations where archaeological features were investigated which form a chronological sequence (Table 4.1).

- Cremation cemetery at Site M1A: a cremation cemetery with adjacent enclosure boundaries on the north-facing spur of the valley;
- Pyre site and cairn (Site M1B): a *bustum*, unurned burials and a stone cairn on the south-facing slope of the valley, east of the motorway development;
- Roman boundaries (TWB3): boundary ditches aligned across the south-facing valley slope, west of the motorway development.

Table 4.1: Late Iron Age/Roman chronology, M1 Junction 12

Phase	Nature of activity
Pre-Roman late Iron Age (1st centuries BC to AD)	A pyre was raised and burnt on the hilltop at Site M1B, charred material was buried and a small cairn of stones laid upon top. A boundary ditch extended south-west to terminate within Site M1A where a small cemetery was established with an initial interment of at least eleven cremations in a loose circular arrangement.
Late Iron Age/Roman (early to mid-1st century AD)	Rectangular enclosures were laid out to either side of the boundary ditch at Site M1A. Eleven cremation burials were added to the cemetery, scattered in different locations with pre-Roman pottery fabrics.
Roman, Flavian/Flavo-Trajanic (late 1st to early 2nd centuries AD)	A further nine cremation burials were added to the cemetery using pre-Flavian pottery. The western boundary of the adjacent enclosure began encroaching on the cemetery. Its southern corner included activity with the disposal of burnt non-funerary material. Occupation of the hillside on the opposite side of the valley began after this time.
Roman, Hadrianic/Antonine (early to mid-2nd century AD)	Twelve cremation burials were interred in a cluster towards the southern edge of the cemetery. Pottery was deposited within the ditches at TWB3.
Roman (early- to late 2nd centuries AD)	Further encroachment onto the cemetery and burials migrated southwards. Five cremation burials were added in a tight group at its southern extent. Possible settlement activity at TWB3.
Late Roman (3rd-4th centuries AD)	Abandonment and disuse, one boundary at TWB3 was recut. 4th-century coins recovered from the fill.



Chapter 4 periods:

- late Iron Age, 1st century BC to AD0
- pre-conquest, late Iron Age, BC to mid-1st century AD
- post-conquest, early Roman, mid-1st to early 2nd century AD
- Roman, early to mid-2nd century AD

Fig 4.1 Location of late Iron Age/Roman sites near M1 Junction 12

Cremation cemetery at Site M1A

The cemetery lay upon the lower spur of the valley ridge, on the upper north-facing slope overlooking a tributary valley of the River Flit, with a confluence to the north-east (Fig 4.1). Whilst it is a prominent topographic location it is overlooked by Sheepwalk Hill to the south-east, and the ground rises further to the west towards Toddington. Geophysical survey to the south of Site M1A was undertaken (TWB1), but not on the cemetery site itself (Butler 2008, figs 4-5). Geological variations in the data suggest that a more extensive survey would not have helped to identify the cemetery site. Trial trench evaluation found spread deposits from pyre debris but did not associate these with funerary activity because no burials or burnt bone were evident within the trench (Walker 2010, 8, figs 6-8).

Cremation burials and related pyre deposits were uncovered at Site M1A. The cemetery was a concentrated group of small pits, the majority of which contained pottery urns holding cremated bone, and many with associated accessory vessels (Fig. 4.3). A single inhumation burial was also found.

Each burial/related deposit is catalogued with its grave goods, and is followed by an overview of the artefactual and ecofactual evidence. At present this cemetery provides the largest set of Aylesford–Swarling pottery within cremation burials yet excavated in Bedfordshire, with clear continuity into the Roman period.

There were 45 pits, which contained cremated bone, and a further two pits which may have been cremation burials lost to ridge and furrow. The whole cemetery was within an area *c*.20m by 15m. Ridge and furrow meant that there was differential survival between the well-preserved ridges and the heavily truncated furrows. The deeper pits had the majority of pottery surviving complete, but many had cracked, collapsed and fragmented vessels.

The cremations displayed a diverse range of characteristics that suggest variations in burial rites. They have been classified on the basis of observed characteristics, combined with grave goods and osteological evidence: the terms used are broadly based on those of McKinley (2004). The burial types are quantified in Table 4.2 and are relevant to all funerary evidence in this publication (see Chapters 5 and 7), with close comparison to cemeteries at Broughton Manor Farm, Buckinghamshire (Atkins *et al.* 2014) and Kempston, Bedfordshire (Luke and Preece 2011).

Type 1 Unurned burials
Burials with no accompanying vessel or grave goods, often with mixed charcoal stained soil and pyre debris with occasional concentrations of bone. The vast majority of these pits were oval in shape and include elongated *bustum*. When the pyre was constructed above a pit, possibly to aid airflow, debris and burnt bone collected in the pit as the pyre burned down. This may have been an incidental rather than deliberate deposition of cremated bone.

Type 2 Unurned and furnished
Burials where cremated bone was placed in a pit with between one and five ceramic vessels and/

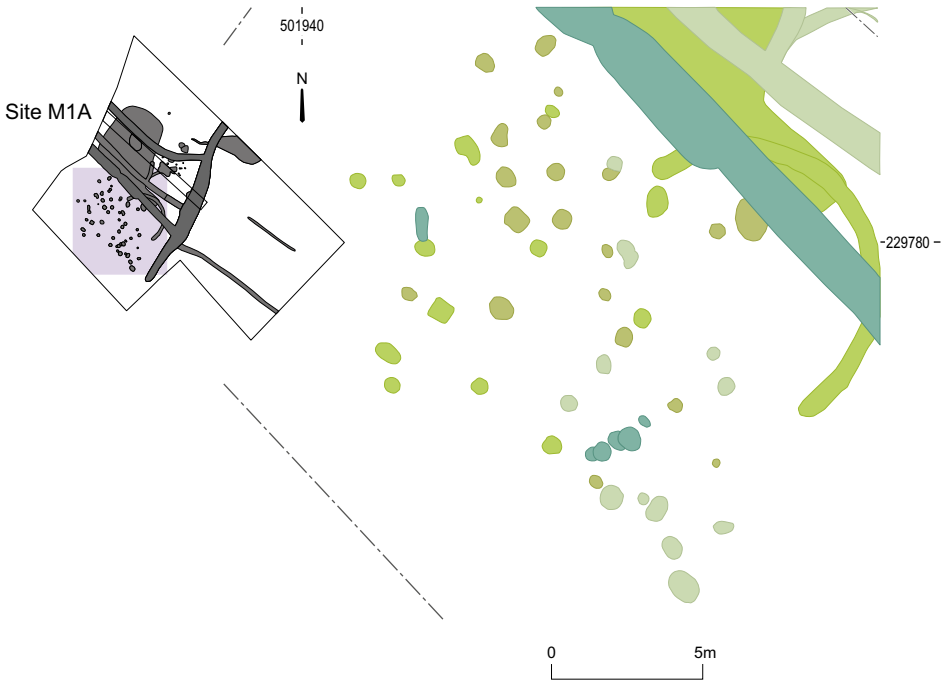


Fig 4.2 Plan of the cremation cemetery, Site M1A

Table 4.2: Cremation burials by type, including sites from both schemes and comparison sites

Cremation type	Site F	Site H	Site Q	Site M1A	Site M1B	Broughton Manor Farm	Kempston
Type 1: unurned (inc. *bustum*)	-	15 (5)	-	-	(1)	10	3
Type 2: unurned and furnished	-	1	-	1	-	12	1
Type 3: unurned, token urned and furnished	-	-	-	-	-	2	-
Type 4: urned	6	-	3	11	-	7	3
Type 5: urned and furnished	2	1	-	22	-	7	3
Type 6: urned, token urned and furnished	1	-	-	3	-	1	-
Type 7: urned and token urned	-	-	-	1	-	-	-
Type 8: urned and ununed	-	-	-	2	-	1	-
Type 9: urned, ununed and furnished	1	-	-	3	-	3	-
Type 10: token urned and furnished	-	-	-	1	-	-	-
Type 11: boxed and furnished	-	-	-	-	-	1	-
Type 12: cremation related deposit	-	-	-	-	2	1	-
Type 13: cremation related deposit and furnished	-	-	-	1	-	-	-
Total	**10**	**22**	**3**	**45**	**3**	**45***	**10**

* includes two individuals from a four-post structure

or where other grave goods were placed on top of the bone, before being backfilled with its upcast. In some cases, there were tiny specks of bone inside a vessel, which appears coincidental.

Type 3 Unurned, token urned and furnished
Burials where cremated bone was deposited directly into the pit, and a handful of bone was deliberately placed within a vessel, perhaps as a token memorial.

Type 4 Urned
Burials where substantial quantities of cremated bone lay within one or more vessels without any accessory vessels, grave goods or other deposits.

Type 5 Urned and furnished
Burials where substantial quantities of cremated bone lay within one or more vessels, accompanied by accessory vessels and/or other grave goods.

Type 6 Urned, token urned and furnished
Burials where substantial quantities of cremated bone lay within one or more vessels, with a handful of bone deliberately placed within a vessel and accompanied by accessory vessels and/or other grave goods.

Type 7 Urned and token urned
Burials where cremated bone was contained within one or more vessels in both substantial and token quantities.

Type 8 Urned and ununed
Burials where a substantial quantity of cremated bone was found both inside and outside of the vessel, but grave goods were absent.

Type 9 Urned, ununed and furnished
Burials where a substantial quantity of cremated bone was found both inside and outside of the vessel and grave goods were present.

Type 10 Token urned and furnished
Burials where handfuls of cremated bone were found inside one or more vessels and grave goods were present.

Type 11 Boxed and furnished
Burials where a casket or box (excluding furniture or shuttering) was used to hold the cremated bone, accompanied by accessory vessels and/or other grave goods.

Type 12 Cremation related deposits
This term relates to a burial recovered where the deposit includes cremated bone, but where the circumstances of deposition are uncertain.

Type 13 Cremation related deposits and furnished
This term relates to a burial recovered where the deposit includes cremated bone, but where the circumstances of deposition are uncertain. Grave goods also present with the deposit.

Type 14 Uncertain
This term relates to a possible burial recovered but where the deposit does not include cremated bone and therefore the circumstances of deposition are uncertain. This deposit is catalogued, but is not counted in the figures as being a cremation.

Cremation cemetery at Site M1A

The cemetery developed from its origins in the pre-Roman late Iron Age up until its last use for burial in the mid 2nd century AD. The cemetery probably served a local rural community and contained the remains of 57 individuals in 48 burials; 45 were adults, four were infants or juveniles and eight could not be aged with confidence. Analysis of the pottery from the cemetery indicated four key phases of development (Table 4.1): Pre Roman late Iron Age (1st centuries BC–AD), late Iron Age/Roman (early to mid 1st century AD), early Roman (late 1st to early 2nd centuries AD, and later Roman (early to mid 2nd century AD). These tie in closely with the development of the adjacent enclosures. A summary of the cremations including any related finds found within the burials are recorded in Table 4.3.

Phase 1: Pre-Roman late Iron Age, 1st centuries BC to AD

The cemetery was established in the late Iron Age prior to the arrival of Roman authority in Britannia at the south-west end of a major boundary ditch (Fig 4.3). The boundary extended from the north-east and was amongst those features identifiable on aerial cropmarks, which suggests that it was part of a wider area of enclosure that was probably lost to the M1 motorway development in 1958-9.

Fig 4.3 Plan of burials of the late Iron Age in cremation cemetery, Site M1A

Table 4.3: Inventory of late Iron Age/Roman cremation burials, M1 Junction 12

Cremation	Date	Type	Depth of deposit (m)	Cremated bone weight (g)	Undisturbed?	Age/sex	Pathology	Vessels	Objects, grave goods	Animal bone deliberately placed
M1A [4120]	AD0–50	4: urned	0.05	116.0	N	?	N/A	jar	2 nails	none
M1A [4140]	AD0–50	4: urned	0.20	686.0	Y	adult	N/A	jar	none	none
M1A [4146]	AD0–50	10: token urned and furnished	0.14	57.0	N	adult	N/A	2 jars, a bowl/ Cup, one other	none	none
M1A [4151]	AD0–50	4: urned	0.30	954.0	?Y	?male adult + one other	osteophytes, osteophyte development on the axis dens, apophyseal facet osteoarthritis	2 jars	none	none
M1A [4153]	AD0–50	5: urned and furnished	0.25	397.0	Y	adult	N/A	jar and one other	none	none
M1A [4155]	AD0–50	5: urned and furnished	0.17	780.0	Y	?male adult	osteophytes	jar/bowl and jar	none	none
M1A [4171]	AD0–50	5: urned and furnished	0.18	321.0	Y	?male adult	N/A	jar	Fe disc	none
M1A [4178]	AD0–50	9: urned, unurned and furnished	0.11	380.0	N	adult	N/A	2 jars, pedestal urn	Fe strip	none
M1A [4188]	AD0–50	4: urned	0.15	28.0	N	?	N/A	one(?)	none	none
M1A [4208]	AD0–50	4: urned	?CHECK	33.0	N	?	N/A	one(?)	none	none
M1A [4067]	AD40–65	13: cremation related deposit and furnished	0.05	<1.0	N	?	N/A	jar, platter, one other	none	none
M1A [4069]	early Roman	7: urned and ?token urned	0.08	162.0	N	?male adult + young adult male	osteophytes	3 jars	Cu fragment	none
M1A [4073]	AD40–65	5: urned and furnished	0.14	57.0	N	adult	N/A	flagon, platter, one other	tin bronze mirror, Colchester brooch, 2 Fe objects, 4 nails, ?from box	none
M1A [4090]	early Roman	4: urned	0.30	682.0	Y	adult	apophyseal facet osteoarthritis	jar	none	none
M1A [4132]	AD40–65	5: urned and furnished	0.12	718.0	N	?Female adult	N/A	2 jars	none	none
M1A [4136]	AD14–68	5: urned and furnished	0.20	1200.0	Y	2 adults	N/A	2 butt beakers, jar	none	none
M1A [4142]	early Roman	14: ?uncertain	0.02	none	N	n/a	N/A	one(?)	none	none
M1A [4144]	AD43–65	8: urned and unurned	0.20	516.0	?Y	adult + infant	N/A	butt beaker, 2 jars	Colchester brooch	none
M1A [4158]	AD40–65	14: ?uncertain	0.09	None	N	n/a	N/A	beaker, platter, jar	none	none
M1A [4160]	AD40–65	5: urned and furnished	0.12	192.0	N	adult	N/A	butt beaker, one other	none	none

Cremation	Date	Type	Depth of deposit (m)	Cremated bone weight (g)	Undisturbed?	Age/sex	Pathology	Vessels	Objects, grave goods	Animal bone deliberately placed
M1A [4199]	early Roman	4: urned	0.09	308.0	N	adult	N/A	jar	none	none
M1A [4174]	early Roman	9: urned, unurned and furnished	0.15	1348.0	N	probable Female adult + adult	N/A	flagon, 2 jars	Nauheim brooch	none
M1A [4180]	early Roman	9: urned, unurned and furnished	0.15	691.0	Y	adult	N/A	flagon, jar	ceramic disc	none
M1A [4190]	early Roman	5: ?urned and furnished	0.15	1222.0	N	mature adult + adult	osteophytes, degenerative disk disease, periostitis of tibia	flagon, 3 jars	Nauheim brooch and annular ring	none
M1A [4210]	early Roman	4: urned	0.12	374.0	N	adult	N/A	one(?)	nail	none
M1A [4214]	AD40–65	5: urned and furnished	0.20	516.0	Y	adult	N/A	butt beaker, 2 jars, platter	none	none
M1A [4221]	AD40–65	5: urned and furnished	0.22	547.0	Y	adult	N/A	butt beaker, jar, platter	none	none
M1A [4224]	early Roman	5: urned and furnished	0.18	834.0	Y	juvenile	N/A	beaker and jar	none	none
M1A [4247]	early Roman	4: urned	0.12	313.0	N	juvenile	N/A	jar	none	none
M1A [4234]	early Roman	8: urned and unurned	0.07	909.0	N	adult	N/A	jar	none	none
M1A [4088]	late 1st – early 2nd centuries AD	6: urned, ?token urned and furnished	0.15	633.5	N	?male young adult + infant	N/A	beaker, jar, one other	6 nails	none
M1A [4092]	AD60–117	5: urned and furnished	0.20	2136.0	N	?Female adult + ?male adult	N/A	beaker, dish, flagon, 2 jars	none	none
M1A [4099]	AD70–95	5: urned and furnished	0.20	530.0	?Y	mature adult + other	N/A	dish and jar	none	none
M1A [4094]	AD60–117	5: urned and furnished	0.12	915.0	N	?male adult	N/A	beaker and jar	none	none
M1A [4106]	later 1st century AD	6: urned, token urned and furnished	0.20	1639	Y	mature adult +	osteophytes, osteophyte development on the axis dens	dish, flagon, jar	none	none
M1A [4116]	late 1st – early 2nd centuries AD	5: ?urned and ?furnished	0.20	948.0	N	adult	N/A	beaker/jar and 2 jars	none	none
M1A [4122]	late 1st – early 2nd centuries AD	4: urned	0.10	495.0	N	adult	N/A	one(?)	none	none
M1A [4129]	prior to *c*.AD80	5: urned and furnished	0.15	1128.0	N	mature adult	N/A	beaker, dish, flagon, jar	none	none
M1A [4134]	late 1st – early 2nd centuries AD	4: urned	0.18	426.0	Y	?Female adult	N/A	jar	none	none
M1A [4193]	AD65–90	5: urned and furnished	0.28	222.0	Y	adult	N/A	dish, flagon, jar	none	none

Cremation	Date	Type	Depth of deposit (m)	Cremated bone weight (g)	Undisturbed?	Age/sex	Pathology	Vessels	Objects, grave goods	Animal bone deliberately placed
M1A [4195]	AD60–117	5: urned and furnished	0.30	692.0	Y	?Female adult	osteophytes osteophyte development on the axis dens,	beaker, dish, flagon, jar	none	none
M1A [4219]	AD69–117	2: unurned and furnished	0.28	1.0 +?	Y	?	N/A	beaker	none	none
M1A [4104]	AD120–150	5: urned and furnished	0.15	862.0	N	adult	N/A	dish, flagon, one other	none	none
M1A [4108]	early 2nd century AD	6: urned, token urned and furnished	0.20	904.0	Y	?Female adult	N/A	beaker, flask, jar	3 nails	none
M1A [4125]	AD117–138 or AD138–160	5: urned and furnished	0.08	1038.0	N	adult + juvenile	N/A	beaker, dish, jar	5 nails	none
M1A [4138]	AD98–117	5: urned and furnished	0.30	967.0	Y	?Female adult	N/A	beaker and jar	none	none
M1A [4165]	early/ mid 2nd century AD	5: urned and furnished	0.15	424.0	N	adult	N/A	beaker, dish and jar	none	none
M1B [5019]	90BC–AD60	1: unurned (*bustum*)	0.23	385.0	?Y	?Female adult	N/A	none	none	none
M1B [1111]	?	13: cremation related deposit	0.16	34.0	N	?	N/A	none	none	none
M1B [1113]	?	13: cremation related deposit	0.05	240.5	N	?	N/A	none	none	none

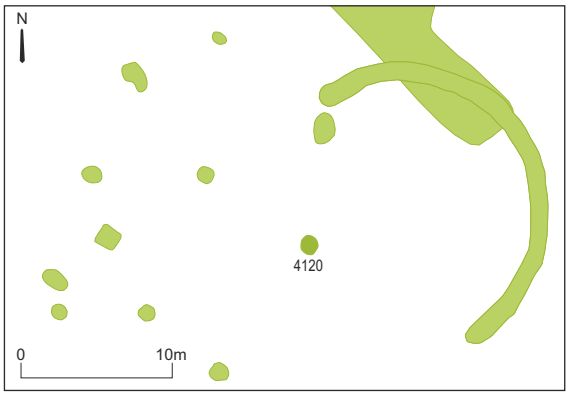
The boundary was frequently recut until the mid 2nd century AD and showed a sequence of silting, in-wash and abandonment. The initial cut was largely truncated by later activity, so its original width is unknown. The ditch had steeply-angled sloping sides and a flat base, 0.53m deep. The fills comprised firm mid yellow-brown sandy clay with red tinges from iron salts, largely a combination of silting and in-wash with no evidence for dumping. Pottery comprised two sherds (9g) in locally made fabrics (Timby 2012, table A2.2).

Slightly north of the southern terminal end of the boundary there were ten cremation burials interred within close proximity to one another, fairly evenly distributed, and with most spaced at 1.0-2.0m intervals. The arrangement of burials encircled a single posthole M1A[4212] which may, based on charcoal analysis, have held an oak post. Four cremation burials were grouped together on the south-west side. In total the ten burials contained 12 individuals, 20 pottery vessels and four iron objects (Table 4.3).

Posthole M1A[4212] was 0.38m wide by 0.07m deep; it had steep sloping sides and a flat base that was filled by friable dark grey-orange silty clay and charcoal. The tree taxon within this sample was exclusively oak heartwood with barely visible ring curvature indicating that much of the oak came from mature trunkwood (charcoal). No other samples from the site were as unique.

The pottery vessels were hand-built locally, with jars being the only form used for urns in this period. The majority of the burials from the 1st centuries BC–AD were of single individuals interred in individual urns. Only one burial contained two urns together; both individuals were adult, although the sex of both was unclear. Accessory vessels accompanied four of the urns, all of them with jars. Two burials also had bowls, and one of these was additionally accompanied by a jar, pedestal jar or goblet. Iron objects, such as nails and brooches, indicate other grave goods accompanied several cremations. An iron disc was not heat affected, suggesting it was placed within the grave with the urn rather than on the body during cremation.

THE CREMATION BURIALS



Burial M1A[4120], looking south-west

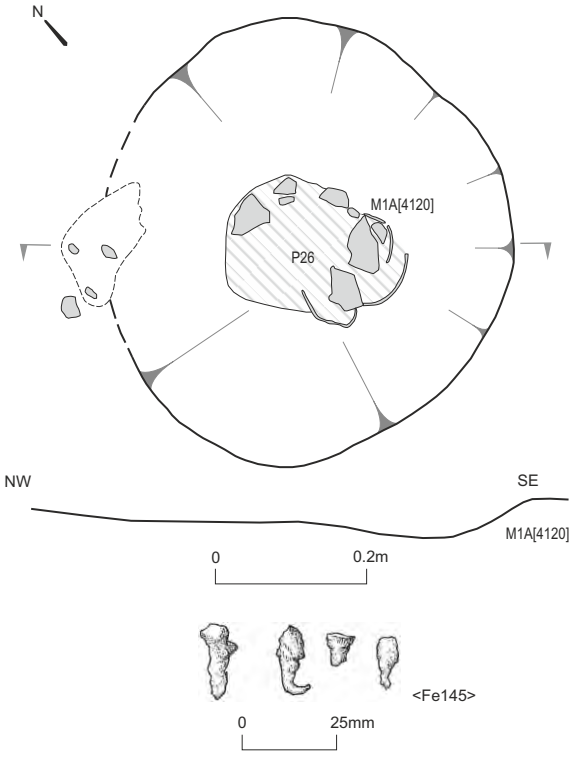


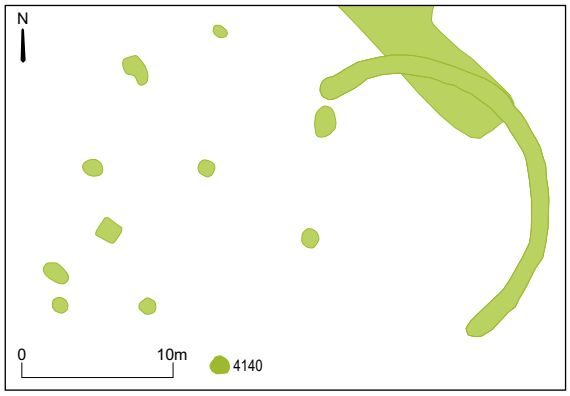
Fig 4.4 Cremation burial M1A[4120]

CREMATION BURIAL M1A[4120]

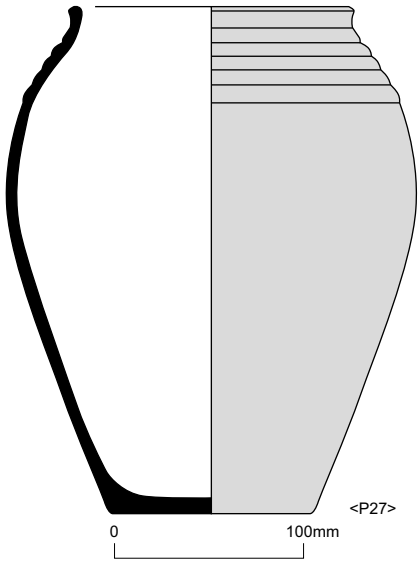
Type: urned (Type 4)
Date: AD0–50
Sex: uncertain
Age: uncertain
Finds: 2 or more iron nails, cinerary urn

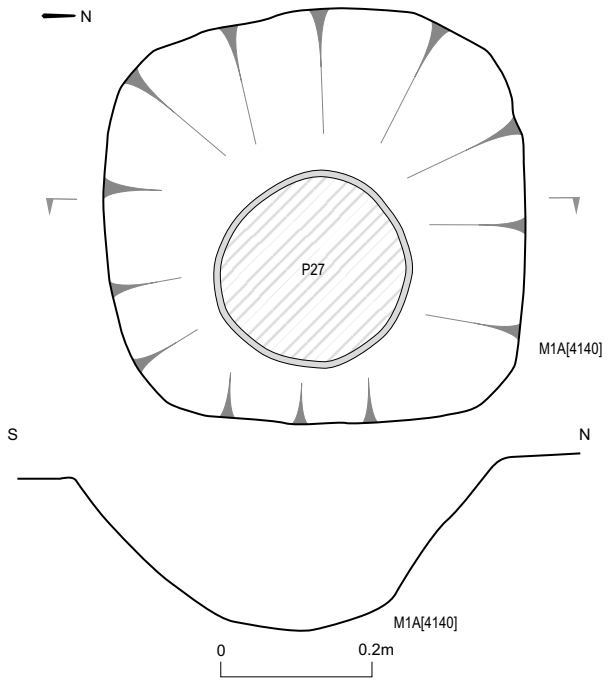
Cremation burial M1A[4120] within the centre of the cemetery was urned and heavily truncated (Fig 4.4). The pit was sub-circular, 0.60m by 0.55m in plan, and 0.05m deep with a flat base. The cinerary urn was placed in the centre of the pit and contained the highly fragmented cremated bones (116g) of a single individual within brown silty clay. The age and gender could not be determined. In addition, there were two complete nails and two partial nails inside the vessel. The grave fill was light brown-grey silty sandy clay.

Finds catalogue
<P26> Jar base, handmade, cinerary urn, undiagnostic. 46 sherds, 436g. R29. Not illustrated.
<Fe145> Iron nails (x2):
One flat sub-circular head with square-section shank, terminal clenched, *c.*30mm long.
One flat sub-circular head with square-sectioned shank, 20mm long.
Two short rod fragments which are probably shanks.



Burial M1A[4140]





Burial M1A[4140], showing heads of long bones bottom right

Fig 4.5 Cremation burial M1A[4140]

CREMATION BURIAL M1A[4140]

Type: urned (Type 4)
Date: AD0–50
Sex: uncertain
Age: adult
Finds: cinerary urn

This well-preserved burial was the westernmost burial in the southern half of the cemetery (Fig. 4.5). The steep to very steep-sided pit was square, 0.55m wide by 0.20m deep. The cremated remains of an adult (686g) exhibited deliberate placement within the urn: a scapula in the base, long bones angled down and the skull on top. The soil comprised brown-yellow clay with patches of brown silty clay and very occasional small pebbles. The grave fill was firm light grey-brown silty clay with charcoal flecks.

Finds catalogue
<P27> Barrel-shaped jar, handmade, cinerary urn (Thompson 1982, form B5-3). 57 sherds, 1,570g.

CREMATION BURIAL M1A[4146]

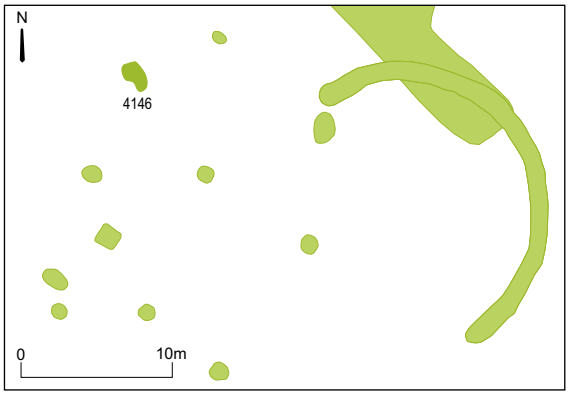
Type: token urned and furnished (Type 10)
Date: AD0–50
Sex: uncertain
Age: adult
Finds: four vessels, and an accessory vessel

Three probable token urns were furnished with a fourth vessel and lay within a pit at the north-western extent of the cemetery where it had suffered slight to moderate truncation (Fig 4.6). The pit was oval, 0.90m by 0.70m in plan, and 0.14m deep with moderate sides and a flat base. The total quantity of human bone (57g) was very small, presumably token deposits, all derived from an adult of unknown gender. Pyre debris was a significant part of this burial and oak was dominant.

Two vessels, <P28> and <P29>, and the accessory vessel, <P30>, lay on the north-east side of the pit. The carinated bowl/cup <P29> contained pyre debris with oak charcoal in bands 2-10mm thick, accompanied by two skull fragments <1g). Urn <P28> was a cordon jar within which was brown silty clay with a few skull fragments (7g).

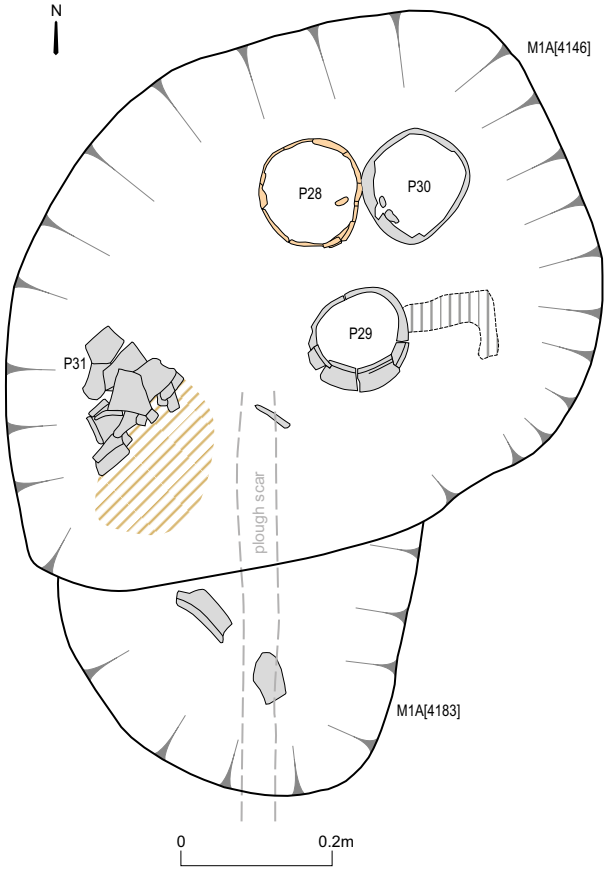
Another urn <P31> lay on the south-west side of the pit. It was fragmented, but had at least three post-firing holes through the lower body vessel wall in a triangular formation. The cremated bone (57g) of an adult lay within. Directly to the south of the urn was a deposit of charcoal pyre debris (74g) including oak, blackthorn and Maloideae. The grave fill largely consisted of dark orange silty clay with occasional flint.

Finds catalogue
<P28> Cordoned jar, necked, handmade, cinerary urn. 101 sherds, 616g. F09. Not illustrated.
<P29> Carinated bowl/cup, necked, handmade, cinerary urn blackened towards base (Thompson 1982, E2-1101). 17 sherds, 387g. F17.
<P30> Jar, closed form, handmade, accessory vessel. 79 sherds, 327g. F09.
<P31> Wide-mouthed necked, cordoned jar. Three post-firing holes through the lower body vessel walls in triangular formation. Cinerary urn. 49 sherds, 492g. F17. Not illustrated.
<P32> Jar, handmade, closed form. 1 sherd, 36g. F29. Not illustrated.



Accessory vessel <P29> split in half, with pyre debris and skull fragment

Burial M1A[4146], looking west and down



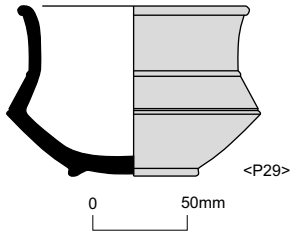
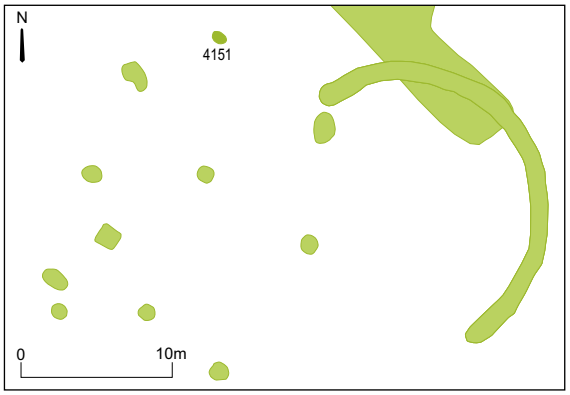
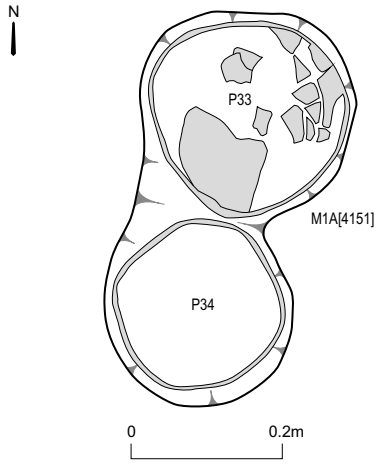
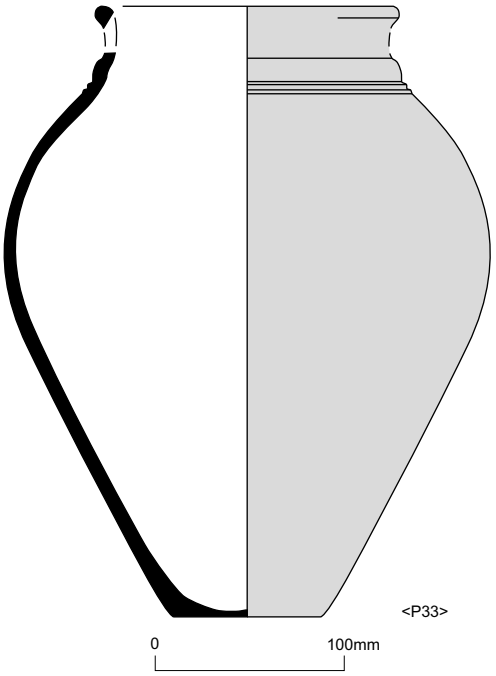


Fig 4.6 Cremation burial M1A[4146]







Burial M1A[4151], looking east

Fig 4.7 Cremation burial M1A[4151]

CREMATION BURIAL M1A[4151]

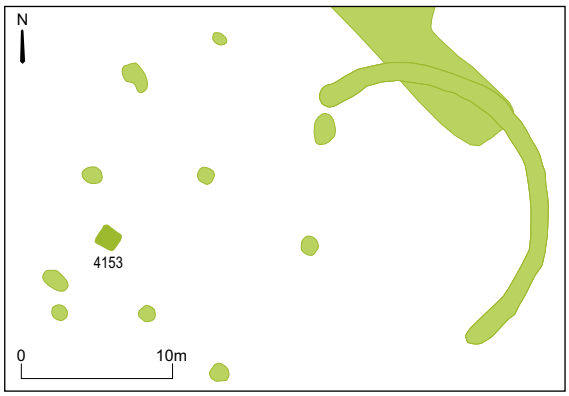
Type: urned (Type 4)
Date: AD0–50
Sex: uncertain male and unknown
Age: two adults
Finds: two cinerary urns

At the northern extent of the cemetery were two slight to moderately truncated urned cremation burials (Fig. 4.7). A sub-rectangular pit was 0.52m by 0.28m in plan, and 0.3m deep with near vertical sides and a slightly concave base. The vessels fitted snugly within the pit walls. The northern urn <P33> contained cremated bone (954g) of a possible male adult within a brown silty clay matrix with occasional flint. Directly to its south was another cinerary urn <P34> within which the brown silty clay contained the cremated remains (212g) of an unsexed adult. The grave fill was firm grey loamy clay.

Finds catalogue

<P33> Jar with neck bulge and cordons, handmade, cinerary urn. 114 sherds, 1,498g. F09.

<P34> Jar, handmade, accessory vessel. 117 sherds, 610g. R13. Not illustrated.



Burial M1A[4153], urn <P35 >

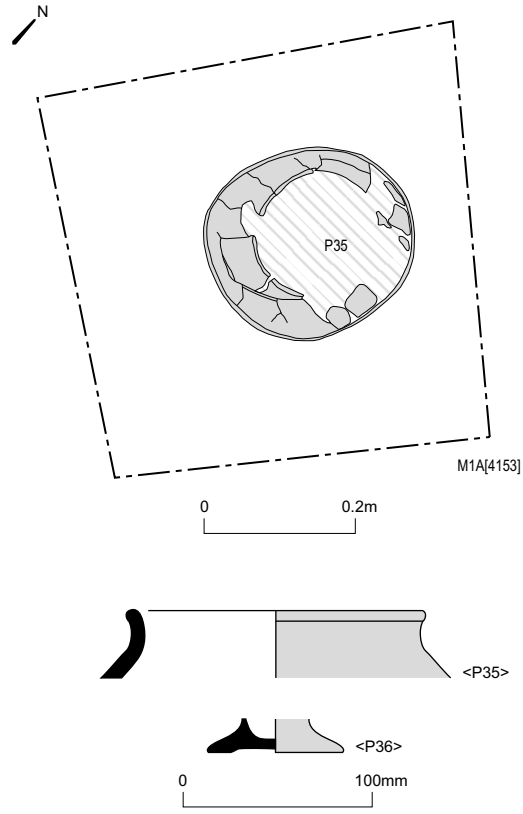


Fig 4.8 Cremation burial M1A[4153]

CREMATION BURIAL M1A[4153]

Type: urned and furnished (Type 5)
Date: AD0–50
Sex: uncertain
Age: adult
Finds: cinerary urn and one accessory vessel

This burial was urned and furnished, the cut was not found and an arbitrary hole was excavated around the vessel to extract it, suggesting it was a snug fit. The base of the feature was flat and moderately truncated (Fig 4.8). The cinerary urn <P35> was a jar with the cremated bone (397g) of an adult at its base within a brown clayey silt matrix. The foot from a pedestalled vessel <P36> lay against the side of the burial urn. The grave fill was light grey-brown silty clay with charcoal flecks.

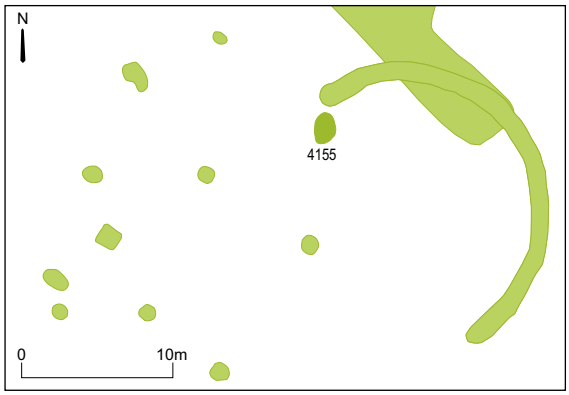
Finds catalogue
<P35> Jar with everted rim, handmade, cinerary urn. 286 sherds, 1,506g. F30.
<P36> Jar, a pedestalled vessel, accessory vessel. 9 sherds, 65g. F17.

Cremation burial M1A[4155]

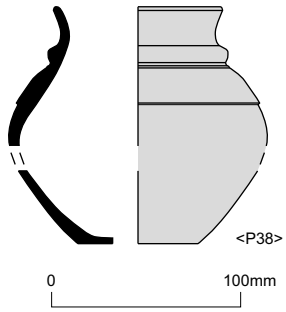
Type: urned and furnished (Type 5)
Date: AD0–50
Sex: uncertain male
Age: adult
Finds: cinerary urn and one accessory vessel

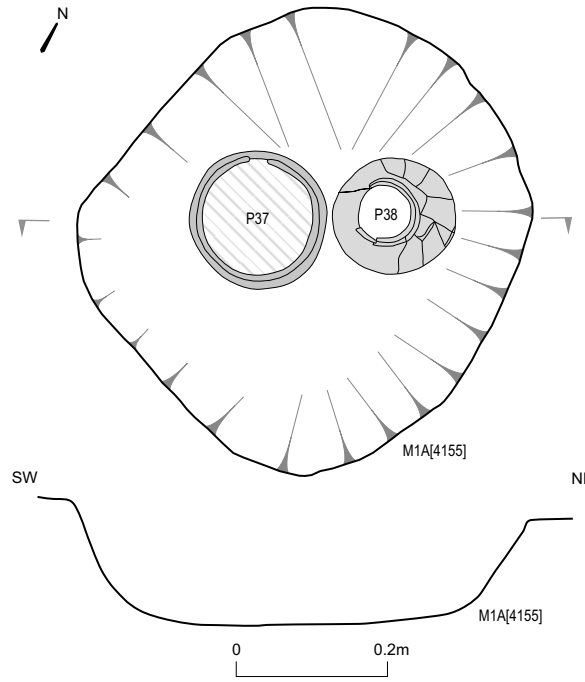
The burial was urned and furnished, and in good condition (Fig 4.9). The pit was sub-square, 0.60m by 0.50m in plan, and 0.17m deep with near vertical sides and a flat base. Two vessels lay adjacent within the centre of the pit with the cinerary urn <P37> on the west side and the accessory vessel <P38> adjacent to the north-east. The cinerary urn, a wide-mouthed jar/bowl contained cremated bone (780g) of a possible adult male. A long bone lay at the base of the urn, but there was no obvious additional order to the deposition of the bones within the vessel. Soil within the urn comprised brown silty clay with a little gravel and the accessory vessel contained brown silty clay. The grave fill was dark grey-brown silty clay with occasional charcoal flecks, and a few cremated bone fragments.

Finds catalogue
<P37> Handmade necked, cordoned, wide-mouthed jar/bowl, cinerary urn. 1 sherd, 1,124g. F17.
<P38> Wheelmade jar with shoulder bulge, very fragmented on one side, accessory vessel. 75 sherds, 433g. F17.



Burial M1A[4155], looking north-west





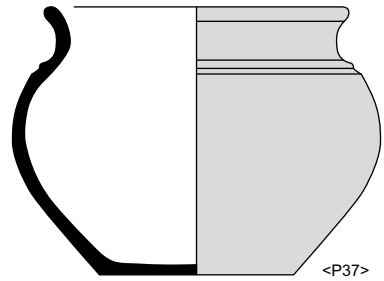


Fig 4.9 Cremation burial M1A[4155]

Cremation burial M1A[4171]

Type: urned and furnished (Type 5)
Date: AD0–50
Sex: uncertain male
Age: adult
Finds: iron disc and cinerary urn

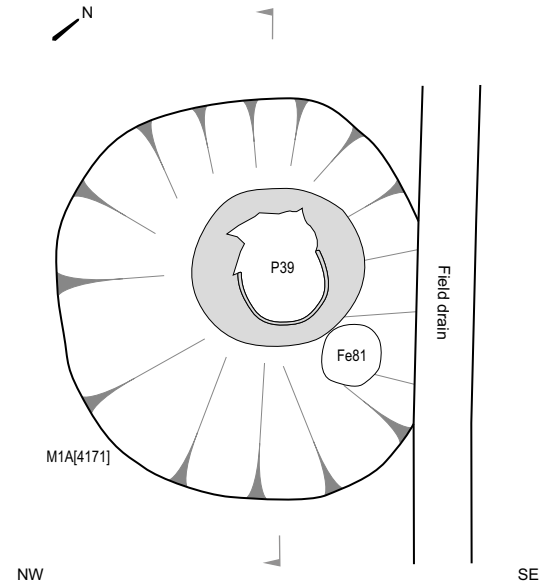
This urned and furnished burial was in the south-western part of the cemetery and in good condition (Fig 4.10). The pit was circular, 0.53m wide by 0.18m deep, with steep-sides and a flat base. The cinerary urn <P39> on the north side of the pit was a short pedestalled jar with protruding feet. At the base of jar was the cremated bone (321g) of a possible adult male overlain by brown clayey silt. Mid brown-grey silty clay with some cremated bone and moderate charcoal was placed around the urn. An iron disc <Fe81> was placed against the vessel on its east side. The grave fill overlaid these remains and comprised mid grey-brown silty clay.

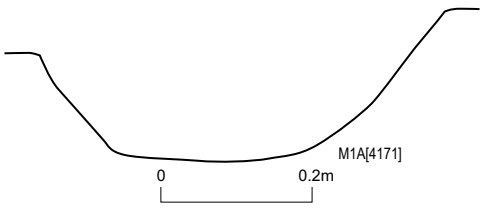
Finds catalogue

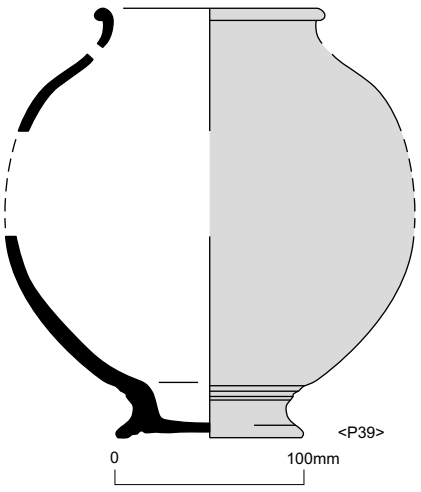
<P39> Handmade, everted rim jar with short pedestal and protruding foot. Possible firing flaw in base, cinerary urn. 56 sherds, 1,256g. F29.

<Fe81> Perforated disc, iron. Complete, beside accessory vessel. Circular with a centrally placed perforation; the hole appears very small, but the X-ray suggests that the hole contains the remains of a tubular fitting/ internal collar or rivet and before corrosion would have been *c.*5mm in diameter. The surfaces of the disc converge towards the outside edge, forming a possible cutting edge. On one side remains of ferruginous wood is evident, and there are two intersecting U-shaped notches, together *c.*23x7mm. Possible razor or belt fitting, 76mm in diameter and 7mm thick.

Burial M1A[4171], urn <P39> with iron disc <Fe81> bottom right







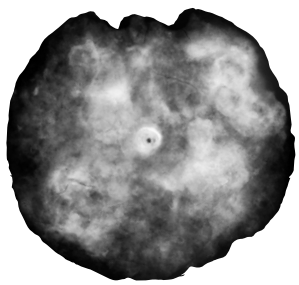


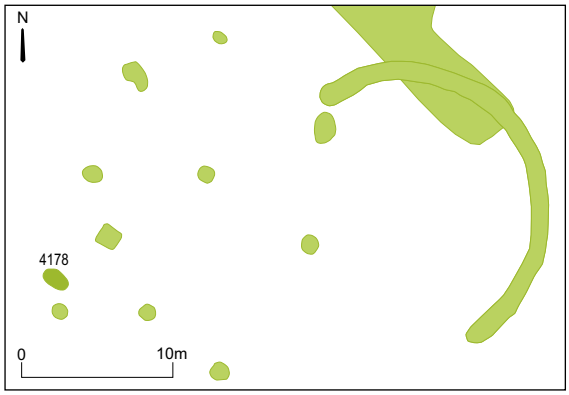
Fig 4.10 Cremation burial M1A[4171]

Cremation burial M1A[4178]

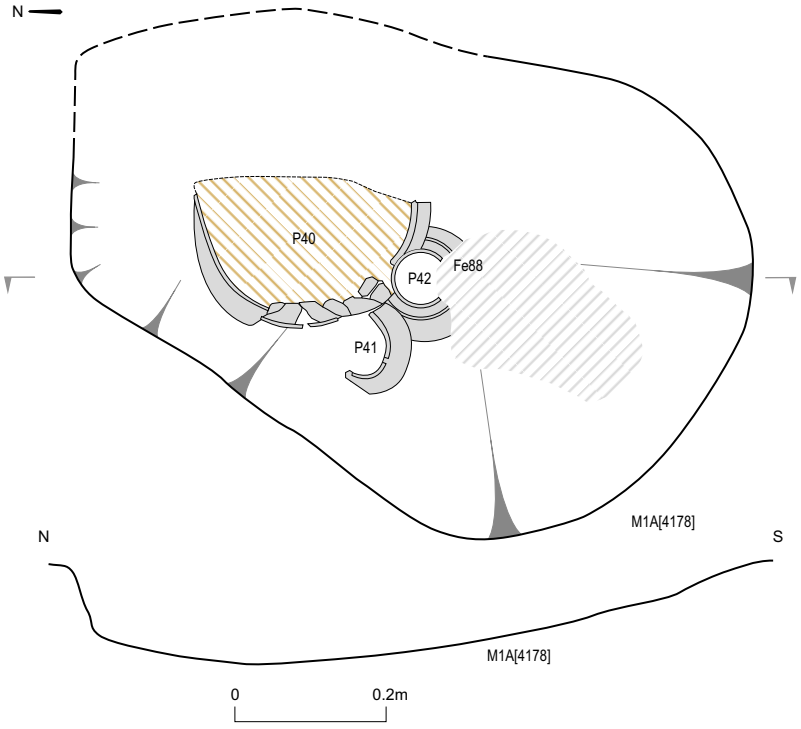
Type: urned, unurned and furnished (Type 9)
Date: AD0–50
Sex: uncertain
Age: adult
Finds: iron strip, nail, cinerary urn and three accessory vessels

At the western extent of the cemetery lay an urned, unurned and furnished burial which was moderately truncated on its north-eastern side (Fig 4.11). The pit was oval, 0.90m by 0.65m in plan and 0.11m deep, with uneven sides and a slightly rounded base. Three vessels were placed in the centre of the pit and the cinerary urn <P40> was on the east side. A thin layer of oak charcoal in the base of the urn was overlain by brown silty clay with occasional flint and pebbles within which the cremated bone (250g) of an unsexed adult was evenly distributed, together with an iron strip <Fe142>. Adjacent to the urn were two accessory vessels <P41-42>, around which there was light grey-brown silty clay with moderate oak charcoal and burnt bone flecks. Sherds of a handmade small jar or bowl were scattered in the fill, perhaps residual. Above and to the east of vessel <P42> was cremated bone (130g) mixed with charcoal and dark grey-brown silty clay with one nail <Fe88>.

Finds catalogue
<P40> Jar, handmade, cinerary urn. 232 sherds, 712g. F17. Not illustrated.
<P41> Jar/goblet, small pedestalled shouldered urn with a foot, accessory vessel (Thompson 1982, A1). 28 sherds, 275g. F17.
<P42> Squat, cordoned, wide-mouthed, handmade jar, accessory vessel. 96 sherds, 357g. F17.
<P43> Small jar/bowl, fragmented. 8 sherds, 18g. F17. Not illustrated.
<Fe142> Short length of parallel sided strip bent into a U-shape, 10x4mm. F[4186]. Not illustrated.
<Fe88> Nail.



Burial M1A[4178], urn <P40>, with pyre debris and cremated bone



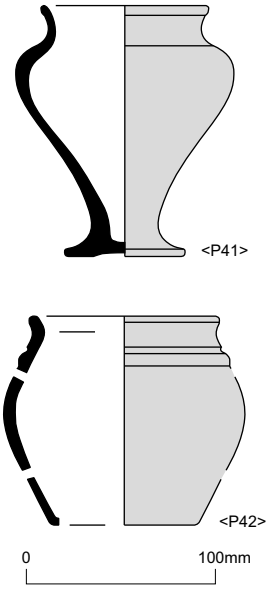
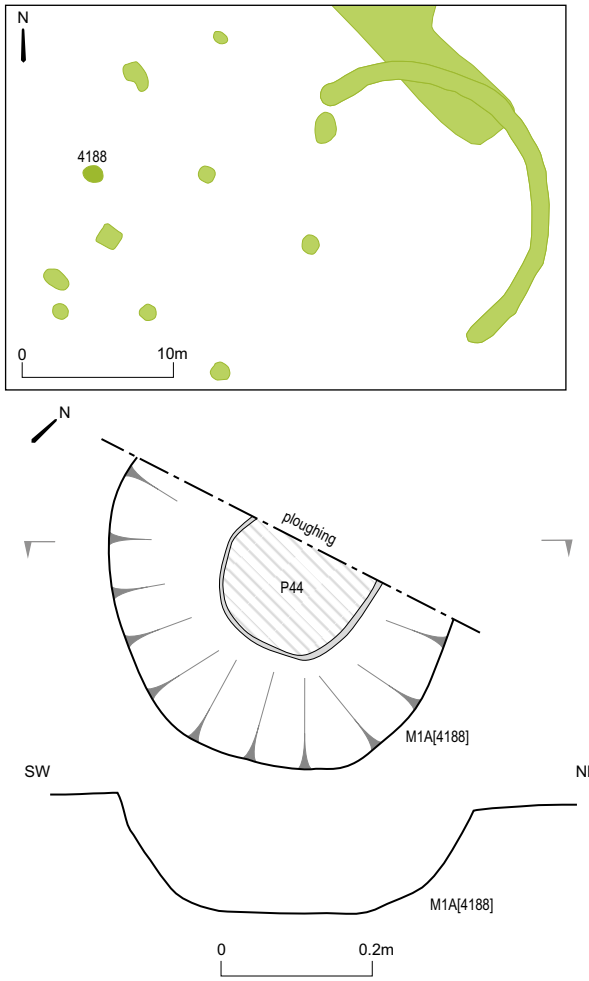


Fig 4.11 Cremation burial M1A[4178]



Burial M1A[4188], looking north-west

Fig 4.12 Cremation burial M1A[4188]

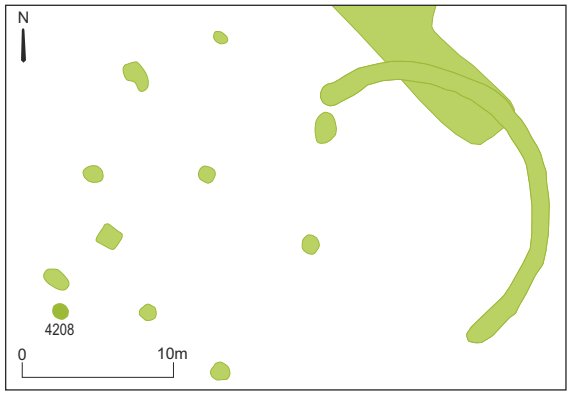
Cremation burial M1A[4188]

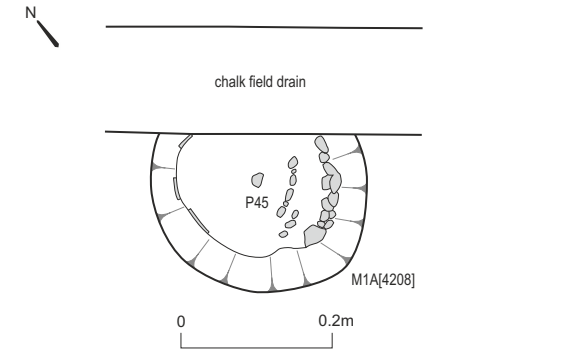
Type: urned (Type 4)
Date: AD0–50
Sex: uncertain
Age: uncertain
Finds: cinerary urn

This urned cremation in the north-western part of the cemetery was heavily truncated (Fig 4.12). The pit was sub-rectangular, 0.60m by 0.35m in plan, and 0.15m deep with moderate to steep sides and a flat base. A cinerary urn <P44> was placed in the centre, the lower part of which contained cremated bone (28g) within brown silty clay. The grave fill was mid brown to grey silty clay with occasional small stones and charcoal flecks.

Finds catalogue

<P44> Jar, closed form, very degraded, handmade, cinerary urn. 80 sherds, 79g. F17. Not illustrated.





Burial M1A[4208], looking north-east

Fig 4.13 Cremation burial M1A[4208]

CREMATION BURIAL M1A[4208]

Type: urned (Type 4)
Date: AD0–50
Sex: uncertain
Age: uncertain
Finds: cinerary urn

This urned cremation burial was located furthest west in the cemetery and was heavily truncated (Fig 4.13). A sub-rounded pit, *c*.0.29m in diameter was cut by a modern chalk field drain. The cinerary urn <P45> lay in the centre of the pit, and was filled with brown and yellow-brown clay with a few fragments of chalk, flint and cremated bone (33g) of an unidentifiable individual. The grave fill was dark grey-brown sandy clay.

Finds catalogue

<P45> Jar, closed form, cinerary urn. 147 sherds, 198g. F17. Not illustrated.

NON-FUNERARY FEATURES

Immediately to the east of the burials lay an undated curvilinear gully, the arc of which faced onto the cemetery site (Fig 4.3). The diameter of the arc was 9.5m, forming a fairly regular semicircle. The gully M1A[4075] was 0.50m wide by 0.12m deep with a fill of firm mid orange-brown and grey-brown silty sand and clay, rich in charcoal flecks. An undated spread of friable dark black-grey silty sand and clay with fragmented burnt stone, flint and moderate charcoal flecks extended from the gully down slope over an area of 15m by 11m, settling in the natural hollows of the ground surface M1A(4055). It is uncertain how or if the spread relates to the cemetery activities, and the absence of cremated material suggests that it did not form part of the cremation process. The stratigraphic relationships between deposits place these features at the very beginning of the archaeological sequence, which means that they either pre-date or were contemporary with the cemetery.

The charcoal within the spread was dominated by scrubland taxa, mainly roundwood from *Prunus* sp. (probably blackthorn) and Maloideae (probably hawthorn), with some oak, field maple and wild privet. This fuel would have produced high temperatures for long periods. Other taxa appeared in low quantities; some *Prunus* sp. like cherry and plum are quite fragrant woods that are easily worked.

PHASE 2: LATE IRON AGE/ROMAN, EARLY TO MID 1ST CENTURY AD

The cemetery continued to develop through the late pre-Roman Iron Age and into the post-Conquest period with a further twenty cremation burials added to the cemetery (Fig 4.14). These fall into two groups, defined by their pottery (Table 4.4); those that exhibited local late Iron Age fabrics and forms (11 burials) and those with specifically pre-Flavian Roman fabrics and forms (nine burials). There was no physical pattern to distinguish the separate arrangement of these pottery groups within the cemetery as a whole. The 20 burials contained 24 individuals, 46 pottery vessels and 16 metal objects (Table 4.3).

The cremation burials were roughly aligned north-west by south-east in two rows with a majority of the burials at the north end in pairs. The arrangement appears quite deliberate and organised, suggesting that the layout had a meaningful progression with specific cremation burials being interred in certain parts of the plot accordingly. Demographic elements may have been of importance in determining the specific burial location.

The urns were mainly jars, with two instances of butt beakers being used. Three burials contained accessory vessels interred within separate pits, so it is uncertain to which individual cremations they related. The majority of the burials from this period were of single individuals interred in individual urns; there were three examples where two or more individuals were buried together and two examples of possible family groups. Few of these burials could be assigned by gender (Table 4.4). There were two instances where two individuals occupied the same urn, perhaps partners or siblings. Accessory vessels were by no means a requirement of the funerary process; seven graves were without accessories, including both potential family burials. The most abundantly furnished grave was for a single adult cremation interred within a beaker urn and accompanied by a platter, a jar and three beakers. A collection of iron fragments was also present. The transitional nature of the cemetery was exemplified where a pre-Flavian style urn and a locally produced beaker lay together. Other finds also supported this such as a flagon from *Verulamium* and a small ceramic roundel, possibly a gaming counter. The remains of one adult were accompanied by a platter, jar and flagon, along with a brooch and a mirror. Three other burials also contained brooches. The growing number of accessory vessels and personal effects may be taken as a reflection of increased affluence of the cemetery occupants from their predecessors, or a change in burial ritual.

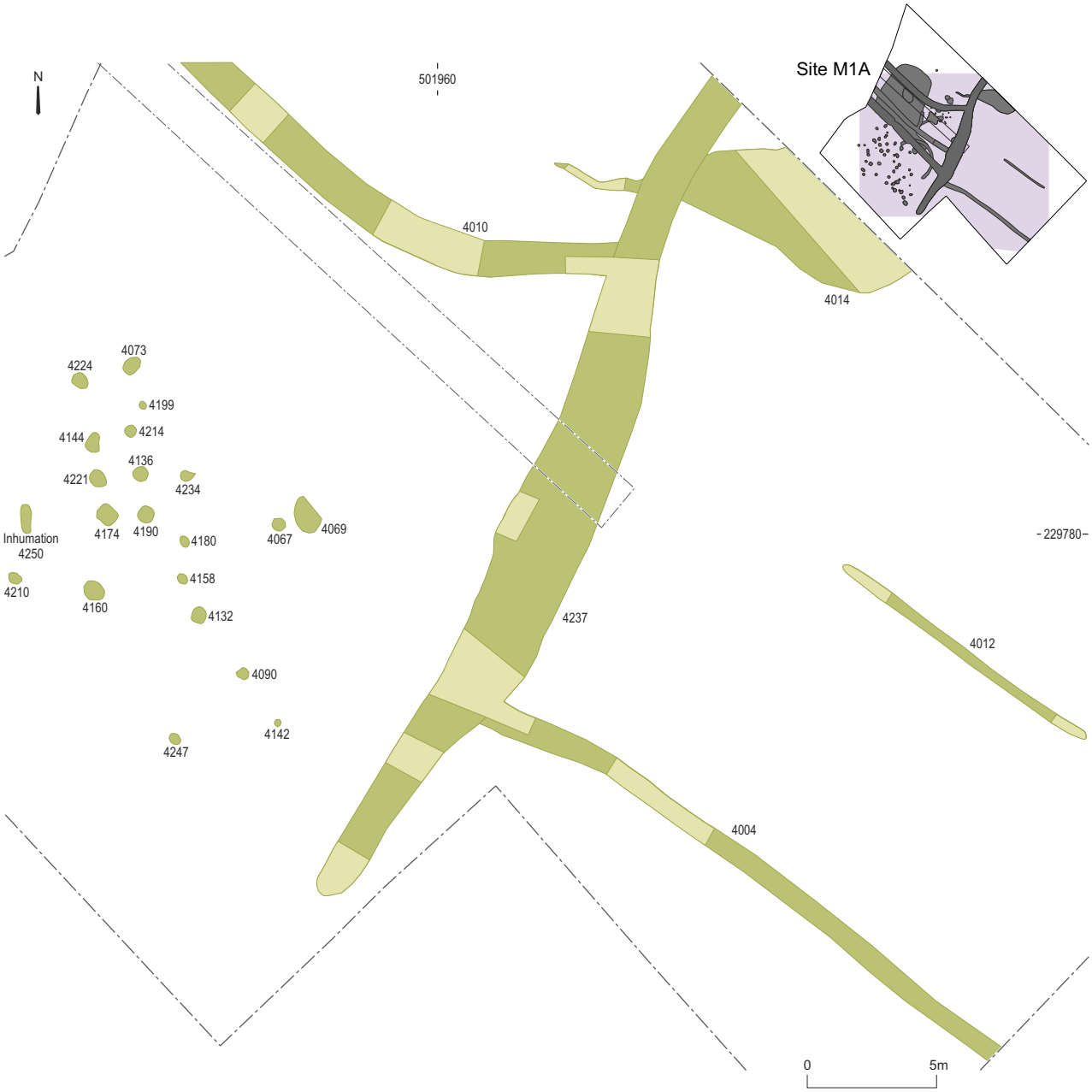


Fig 4.14 Plan of burials in cremation cemetery, mid 1st century AD, Site M1A

Table 4.4: Cremation burials of the mid-1st century AD divided by pottery fabric

Burial no.	Age/gender	Urn	Accessory vessels	Grave goods
local late Iron Age pottery				
M1A[4067]	accessory vessels only	-	3	-
M1A[4132]	1 adult female	1	1	-
M1A[4136]	2 adults, one male, one female	1	2	-
M1A[4142]	accessory vessel only	-	1	-
M1A[4144]	1 adult and one child,1-2 years	3	-	Cu-alloy brooch
M1A[4158]	accessory vessels only	-	3	-
M1A[4160]	1 adult	1	1	-
M1A[4199]	1 adult	1	-	-
M1A[4214]	1 adult	1	3	-
M1A[4221]	1 adult	1	2	-
M1A[4234]	1 adult	1	-	-
pre-Flavian Roman pottery				
M1A[4069]	3 individuals, two male	3	-	Cu-alloy frag.
M1A[4073]	1 adult	1	2	bronze mirror Cu-alloy brooch 4 nails 2 iron frags
M1A[4090]	1 adult	1	-	-
M1A[4174]	3 individuals; 2 adults, one was female, and one unidentified	2	1	iron brooch
M1A[4180]	1 adult	1	1	ceramic disk iron fragment
M1A[4190]	2 adults	1	3	Cu-alloy brooch Cu-alloy ring
M1A[4210]	1 adult	1	-	iron nail
M1A[4224]	1 juvenile	1	1	-
M1A[4247]	1 juvenile	1	-	-
Totals	**24 individuals**	**22**	**24**	**-**

THE CREMATION BURIALS

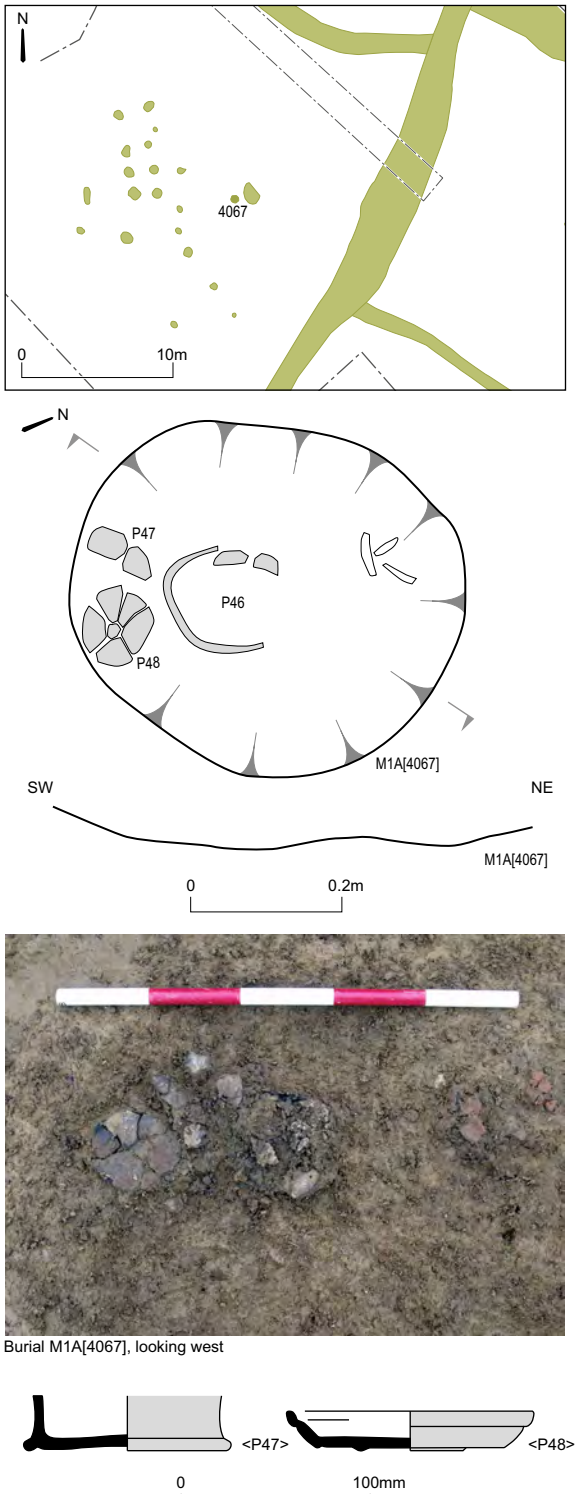


Fig 4.15 Cremation burial M1A[4067]

CREMATION BURIAL M1A[4067]

Type: Cremation related deposit and furnished (Type 13)
Date: AD40–65
Sex: uncertain
Age: uncertain
Finds: three vessels

This burial at the south-eastern extent of the cemetery was heavily truncated (Fig 4.15). The pit was sub-rectangular, 0.63m by 0.44m in plan, and 0.05m deep with imperceptible sides and an uneven base. Three vessels lay on the southern side and the platter survived enough for a complete profile. The grave fill was mid grey-brown sandy silty clay with charcoal flecks and cremated bone (<1g). It is possible the burial was unurned, at least as a token burial.

Finds catalogue

<P46> Jar, base and lower body fragments, accessory vessel. 20 sherds, 24g. F17. Not illustrated.

<P47> Jar, hollow pedestalled base with small foot, closed form, accessory vessel. 7 sherds, 146g. F17.

<P48> Platter with low footring, CAM8 copy (Thompson 1982, G1-6), accessory vessel. 15 sherds, 65g. F17

CREMATION BURIAL M1A[4069]

Type: urned and token urned (Type 7)
Date: early Roman
Sex: 2 uncertain males and one other
Age: adult, young adult and unknown
Finds: misc. copper-alloy fragment, three cinerary urns and two pottery sherds

The burial was heavily truncated on its eastern side by a later ditch, probably removing other vessels (Fig 4.16). Cremated bone remained in three vessels, two as token deposits (17g and 5g). The pit was possibly sub-rectangular, 1.8m long, over 0.5m wide, and 0.08m deep with gentle sides and an uneven base. The three cinerary urns were located at the southern end of the pit. The large empty space in the remainder of the pit may have held perishable commodities or was otherwise overcut. Cinerary urn <P51> was a jar that contained the most cremated bone (140g), that of a probable adult male. The grave fill was mid grey-brown silty clay with two pottery sherds and a copper-alloy fragment. The deposit contained moderate charcoal including part of probable short plank, 300x100mm, amongst pyre debris. Charcoal analysis found probable blackthorn, Maloideae and ash species.

Finds catalogue
<P49> Jar, base and lower body fragments, cinerary urn. 57 sherds, 234g. R07. Not illustrated.
<P50> Jar, body sherds, cinerary urn. 22 sherds, 54g. R07. Not illustrated.
<P51> Jar, body sherds, cinerary urn. 19 sherds, 63g. F29. Not illustrated.
<P52> Stray body sherds. 2 sherds, 3g. R05. Not illustrated.
<Cu4069> Misc. copper-alloy fragment

Burial M1A[4069], looking north

Burials M1A [4067] and M1A[4069], hand excavation looking north-east

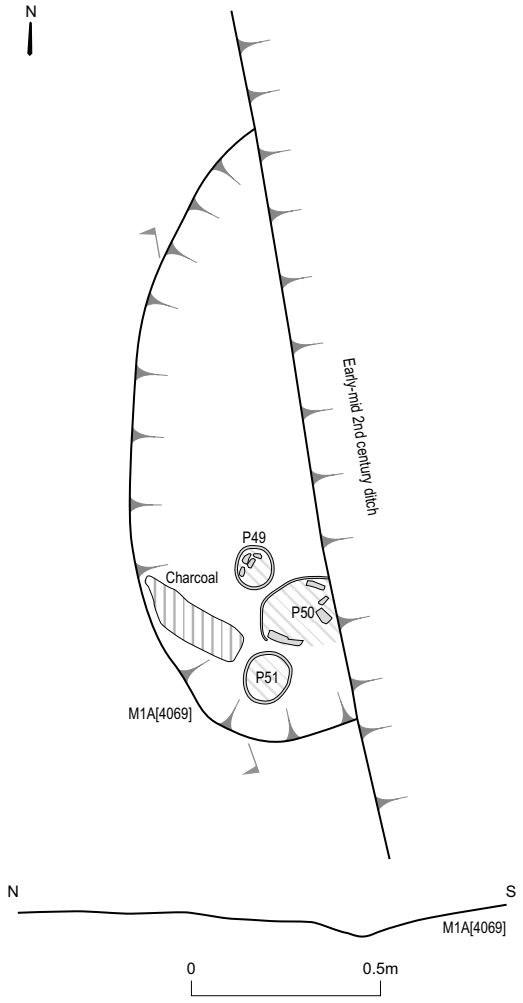


Fig 4.16 Cremation burial M1A[4069]

Cremation burial M1A[4073]

Type: urned and furnished (Type 5)
Date: AD40–65
Sex: uncertain
Age: adult
Finds: bronze mirror, brooch, two iron objects and four nails, one cinerary urn and two accessory vessels

A large sub-oval pit at the far northern extent of the cemetery was moderately truncated (Fig 4.17). The pit was 0.78m by 0.48m in plan, and 0.14m deep with steep sides on its eastern edge, gentle sides elsewhere and a flat base. The cinerary urn <P53> lay at the northern edge containing the cremated bone (57g) of an unsexed adult. A platter <P55> lay to its east and a flagon <P54> lay its south-east. At the south-west end was light grey silty clay with flecks of charcoal and ash within which all of the metal objects were found; a highly polished rectangular bronze mirror <Cu13>, a Colchester derivative brooch <Cu14> of the mid/late 1st century AD, two miscellaneous iron objects and four iron nails. The nails may be from a wooden object such as a box. The brooch, the mirror and the iron objects would probably have been contained within the box and as these objects were unburnt it can be assumed that it was not placed on the pyre. It is uncertain why ash was therefore present; it may have been deliberately added to the box along with the grave goods. The grave fill was light grey-brown silty clay with a few burnt stones, gravel and charcoal flecks.

Finds catalogue

<P53> Jar, base fragments, handmade, closed form, cinerary urn. 31 sherds, 90g. R07. Not illustrated.
<P54> Single-handled flagon, oxidised, collared rim, sandy ware with occasional blackened organic inclusions, accessory vessel. 102 sherds, 449g. R07.
<P55> Platter imitating a moulded form, slightly dished base which has spalled through burning, accessory vessel. 11 sherds, 398g. F09.
<Cu13> Mirror, tinned bronze alloy. Incomplete. Seven pieces join, 73x60mm and 1mm thick. Two original edges at right angles indicate a rectangular mirror. One surface highly polished, the underside is matt/pitted. Edges slightly bevelled and would presumably have been inserted into a wooden frame.
<Cu14> Colchester derivative brooch. Incomplete; in three pieces and part of pin missing, *c.*44mm long. Plain wings, curved to house the spring which is held in place by a pierced plate behind the head of the bow. The axis bar of the spring passes through the lower of two holes and the chord is held in place by the upper. The plate behind the head is carried over the top in the form of a fake hook; this extends down the front of the bow for a short distance and takes the form of a V-shaped moulding. The lower part of the bow is decorated with a zig-zag motif. The centre of the bow is flanked by a plain concave surface and the back of the bow is flat. The catch-plate is pierced with a circle over a pierced triangle, and there is a pin groove at the edge. Type 1.a.1b (Mackreth 2011, plate 31, 1127), mid/late 1st century AD.
<Fe15> Misc. iron object, incomplete, both terminals missing. Square-sectioned rod. Nature of object difficult to determine, possibly part of nail shank, 26mm long.
<Fe16> Nail, wedge shaped with no distinct head, 26mm long, and 11mm wide at top.
<Fe17> Incomplete, shank, 17mm long.
<Fe18> Miniscule iron fragment, undiagnostic, 6x5mm.
<Fe137> Small lump of corrosion and ferruginous wood. Incomplete, head missing, point protruding suggests that it is a nail shank. No measurements.
<Fe144> Square-sectioned rod fragment with wood deposits adhering to the surfaces. Incomplete, both terminals missing, 35mm long.

Burial M1A[4073], burial urn <P53> bottom, deposit from possible box with dark mirror fragments <Cu13> right, looking east

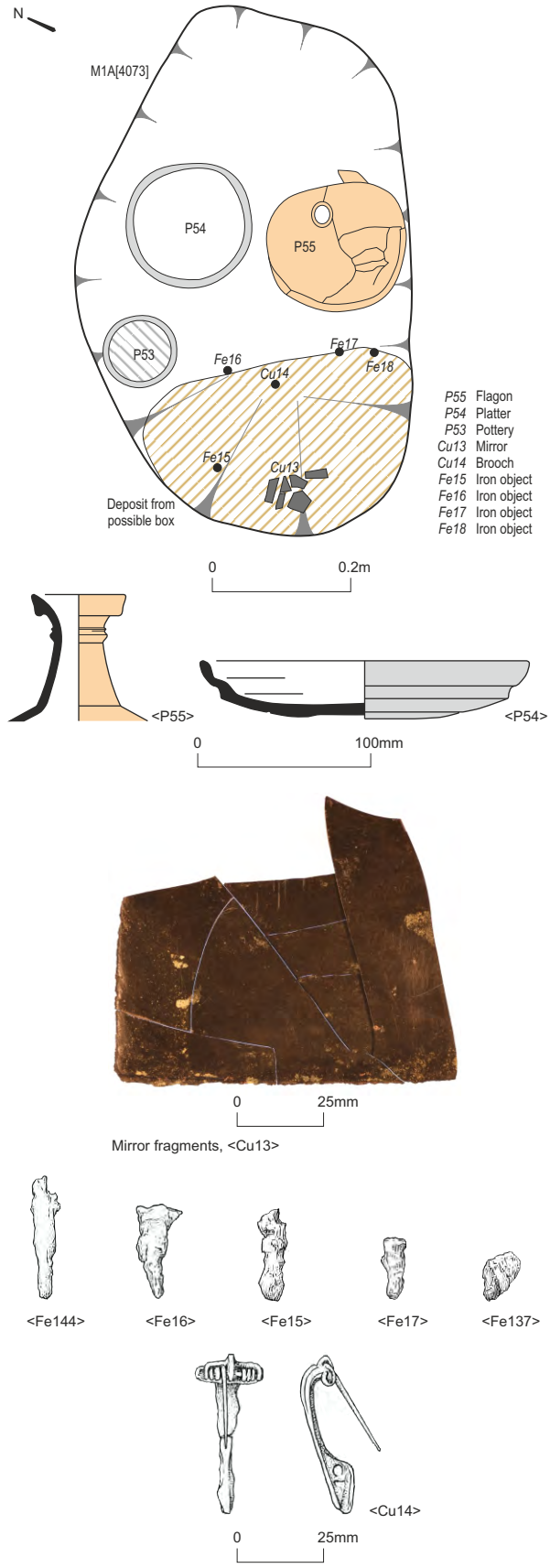
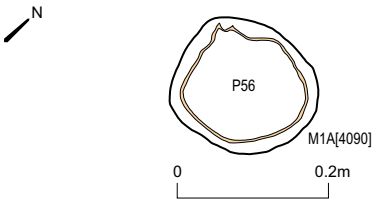


Fig 4.17 Cremation burial M1A[4073]



Burial M1A[4090], excavated

Fig 4.18 Cremation burial M1A[4090]

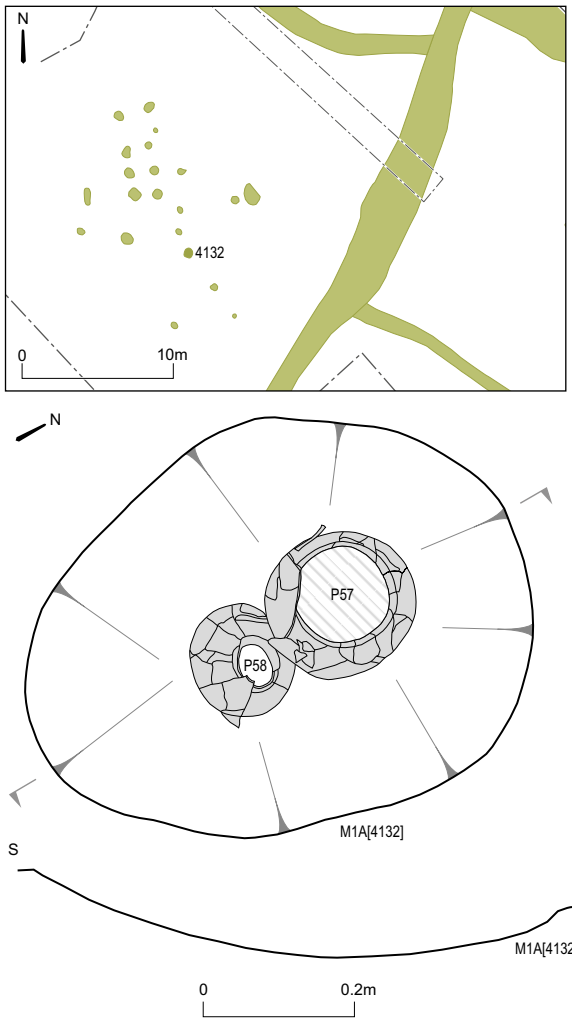
CREMATION BURIAL M1A[4090]

Type: urned (Type 4)
Date: early Roman
Sex: uncertain
Age: adult
Finds: cinerary urn

This urned cremation lay in the south-eastern extent of the cemetery and was in fair condition (Fig 4.18). A small circular pit was 0.20m in diameter by 0.30m deep. The upper half of the vessel <P56> was fragmentary, but had survived containing brown silty clay fill with a few small flint pieces or pebbles and the cremated bone (682g) of an unsexed adult and two nails. The grave fill was grey-brown silty clay.

Finds catalogue

<P56> Jar, triangular-rim, cinerary urn. 91 sherds, 402g. R13. Not illustrated.



Burial M1A[4132], looking west

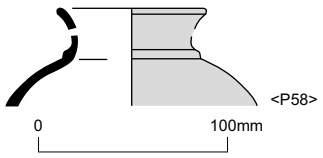


Fig 4.19 Cremation burial M1A[4132]

CREMATION BURIAL M1A[4132]

Type: urned and furnished (Type 5)
Date: AD40–65
Sex: uncertain female
Age: adult
Finds: cinerary urn and one accessory vessel

This urned and furnished burial lay in the middle of the cemetery with relatively little plough damage (Fig 4.19). The pit was oval, 0.69m by 0.55m in plan, and 0.12m deep with gentle sides and a slightly concave base. The two vessels lay in the centre of the pit with the cinerary urn <P57> on the northern side containing the cremated bone (718g) of a probable adult female and an accessory vessel <P58> to the south of it.

Finds catalogue

<P57> Jar, handmade, cinerary urn. 123 sherds, 1,234g. F09. Not illustrated.

<P58> Jar, narrow-mouthed, necked, cordoned, much fragmented, accessory vessel. 101 sherds, 353g. R06.

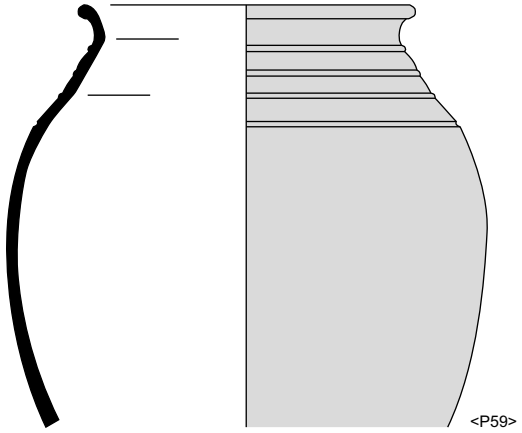
Cremation burial M1A[4136]

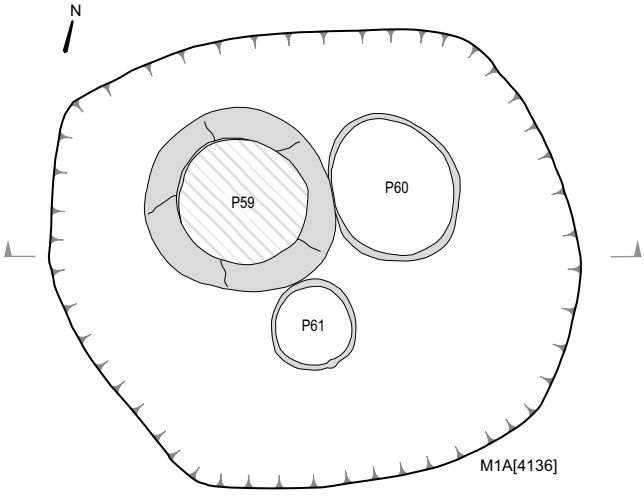
Type: urned and furnished (Type 5)
Date: AD14–68
Sex: uncertain male and female
Age: two adults
Find: cinerary urn and two accessory vessels

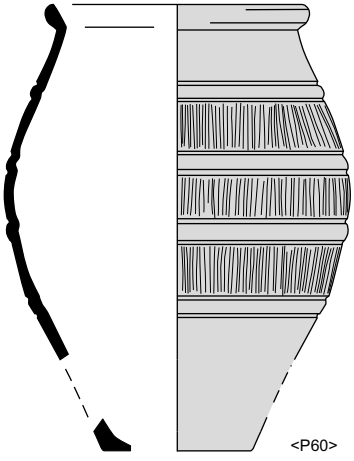
This burial was urned and furnished; it lay in the northern part of the cemetery and had only been slightly truncated (Fig 4.20). The pit was sub-rectangular, 0.70m by 0.60m in plan, by 0.20m deep with near vertical sides and a flat base. The cinerary urn <P59> and two accessory vessels <P60> and <P61> were placed in the middle of the pit with the urn on the west side. The urn had a lower lens, 200mm thick, of brown clayey silt with frequent small flint and the cremated remains (1,200g) of two adults (possibly a male and female). The top 20mm was dark loam. The two accessory vessels were filled with brown clay silt. The grave fill was mid grey-brown sandy clay with frequent charcoal flecks, and some poorly sorted gravel. The charcoal comprised mainly Maloideae and probable blackthorn with some oak.

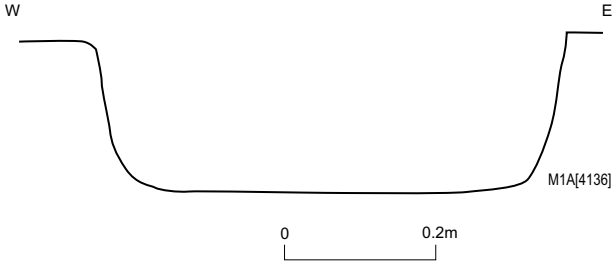
Finds catalogue
<P59> Jar, handmade wide-mouthed, necked, multiple-cordoned, cinerary urn. 149 sherds, 1,328g. F22.
<P60> Butt beaker, wheelmade, decorated with three zones of vertical combing, fragmented, accessory vessel. 108 sherds, 474g. F22.
<P61> Butt beaker, complete, accessory vessel. 1 sherd, 316g. R03 (VER WH).

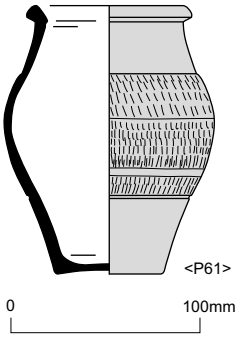

Burial M1A[4136], looking north





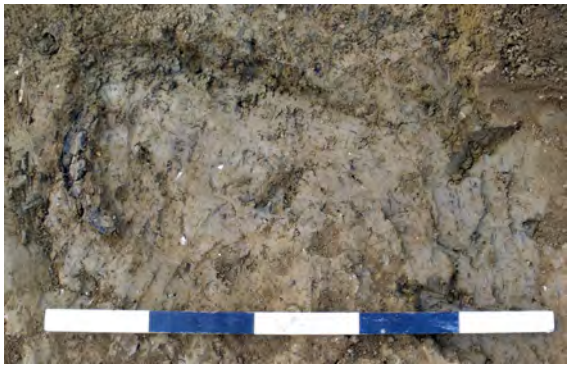






Accessory vessels, butt beakers <P60> and <61>

Fig 4.20 Cremation burial M1A[4136]



Burial M1A[4142], looking east

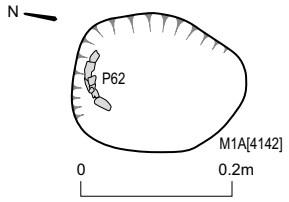


Fig 4.21 Cremation burial M1A[4142]

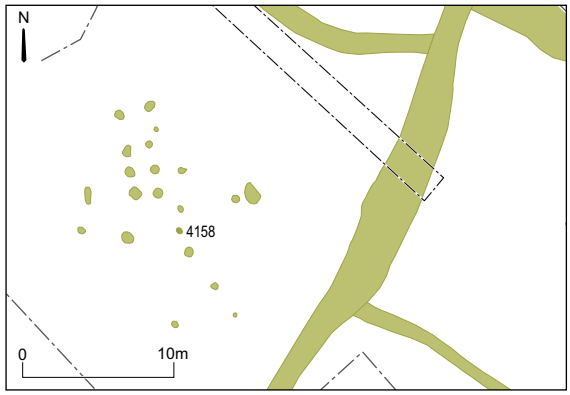
CREMATION BURIAL M1A[4142]

Type: uncertain (Type 14)
Date: early Roman
Sex: unknown
Age: unknown
Finds: fragments of a single vessel

This heavily truncated burial lay at the southern extent of the cemetery (Fig 4.21). No human bone survived and only scattered pottery sherds remained within a smear of light grey silty clay, 0.25m long by 0.02m deep.

Finds catalogue

<P62> Jar, closed form, lower fragments. 13 sherds, 27g. R13. Not illustrated.



Burial M1A[4158], fragmented vessels looking west

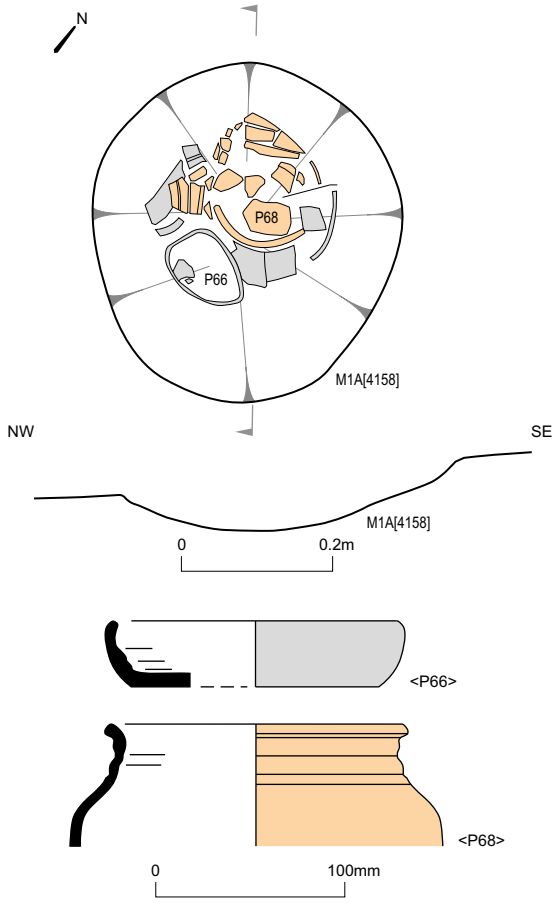


Fig 4.22 Cremation burial M1A[4158]

CREMATION BURIAL M1A[4158]

Type: uncertain (Type 14)
Date: AD40–65
Sex: unknown
Age: unknown
Finds: three vessels

Three fragmentary pottery vessels were found within the middle of a pit in the centre of the cemetery (Fig 4.21). No human remains survived the plough damage. The pit was oval, 0.40m by 0.35m in plan, and 0.09m deep with moderate sides and a rounded base. Three pottery vessels were badly disturbed within light grey-brown sandy silty clay fill.

Finds catalogue

<P66> Platter, devolved copy of a moulded imported form. 5 sherds, 75g. R07.
<P67> Necked beaker with rolled rim. 14 sherds, 67g. F09. Not illustrated.
<P68> Necked, cordoned jar. 124 sherds, 675g. R05.
<P69> Stray body sherd. 1 sherd, 7g, F17.

Cremation burial M1A[4144]

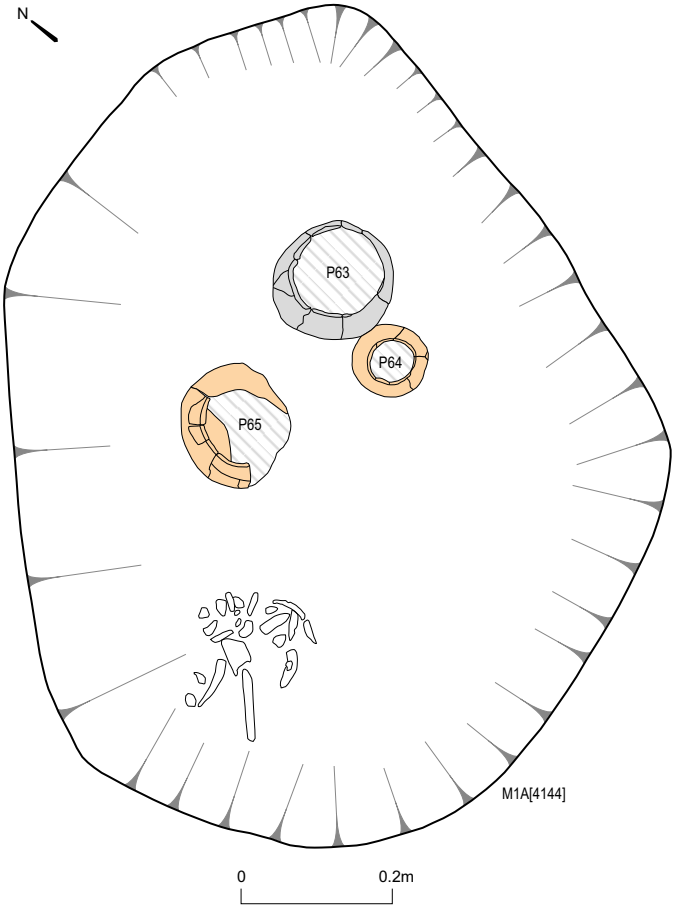
Type: urned and unurned (Type 8)
Date: AD43–65
Sex: uncertain
Age: adult and child 1-2 years, two possible others
Finds: copper-alloy brooch and three cinerary urns

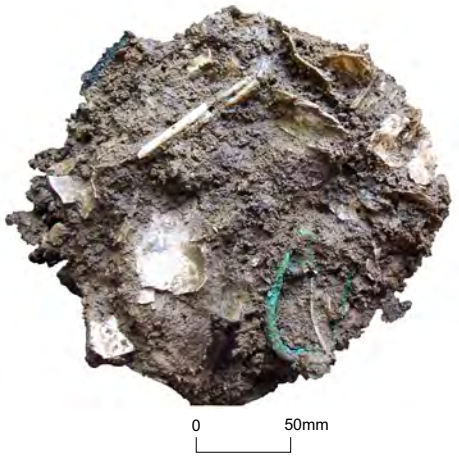
This burial lay at the northern extent of the cemetery and was slightly truncated (Fig 4.23). The pit was oval, 1.10m by 0.85m in plan, and 0.20m deep with steep sides and an uneven base. One cinerary urn contained the cremated remains of a child; two other vessels contained cremated bone of indeterminate individuals and the remains of an adult were unurned. Three cinerary urns lay near the centre of the pit. A jar <P63> contained the cremated bone (242g) of a 1-2-year-old child at the northern end of the pit. The bone fragments may have been deliberately positioned inside; there were skull fragments, femurs, and another long bone on top. A copper-alloy brooch <Cu150> lay on top of the skull. The soil within the vessel was brown silty clay with gravel. Directly to the south was a small squat jar <P64> which contained cremated bone (217g) of an indeterminate individual and brown silty clay fill. On the western side of the pit was a butt beaker <P65> with the cremated bones (122g) of another unidentifiable individual in the lower 40mm of the vessel. At the southern end of the pit there were the unurned cremated bones (57g) of an adult buried within mid grey-brown and red-orange sandy silty clay. The grave fill was mid brown silty sandy clay with occasional pebble flint.

Finds catalogue

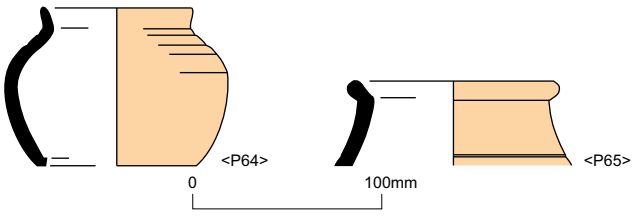
<P63> Lower part of jar, possibly wheel-turned, cinerary urn. 94 sherds, 293g. F17. Not illustrated.
<P64> Small, squat, handmade jar with sharply everted rim, cinerary urn. 43 sherds, 272g. F09.
<P65> Butt beaker, handmade, oxidised, much fragmented, cinerary urn. 107 sherds, 460g. F09.
<Cu150> Colchester brooch, copper alloy. Incomplete, no pin or catch-plate, badly corroded with much surface loss. Bilateral spring has six coils and external chord held in place by small wings behind the head of the bow. The hook is thin and lies over the top of the chord. The wings are plain and the bow has an oval cross section and appears plain. Type 2b (Mackreth 2011, plate 22, 211), mid 1st century AD, *c.*38mm long.

Burial M1A[4144], urn <P63> top, unurned deposit bottom





Burial M1A[4144], burial urn <P63>, juvenile cremated bone with brooch <Cu150>



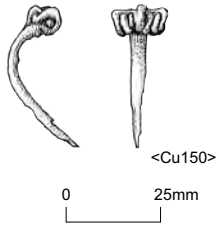
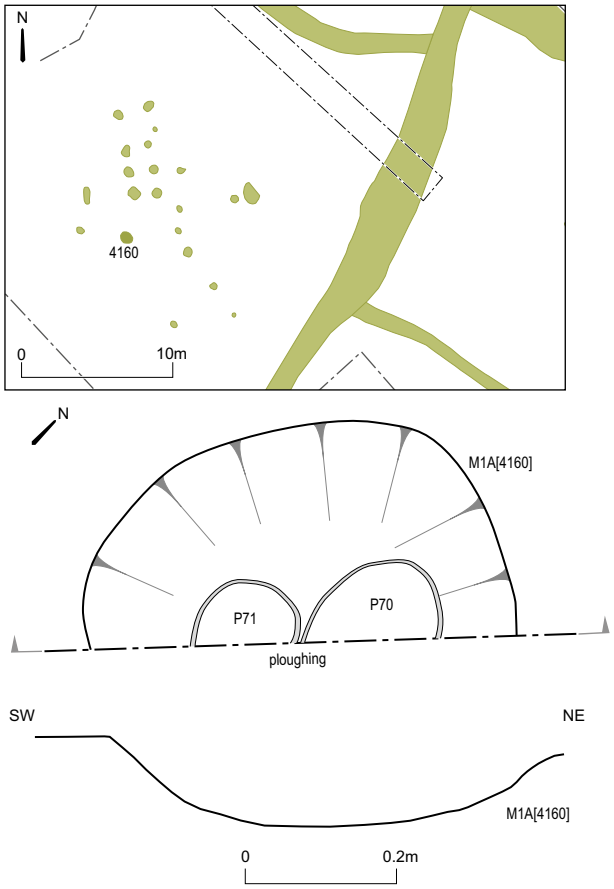


Fig 4.23 Cremation burial M1A[4144]



Burial M1A[4160], looking south-east

Fig 4.24 Cremation burial M1A[4160]

CREMATION BURIAL M1A[4160]

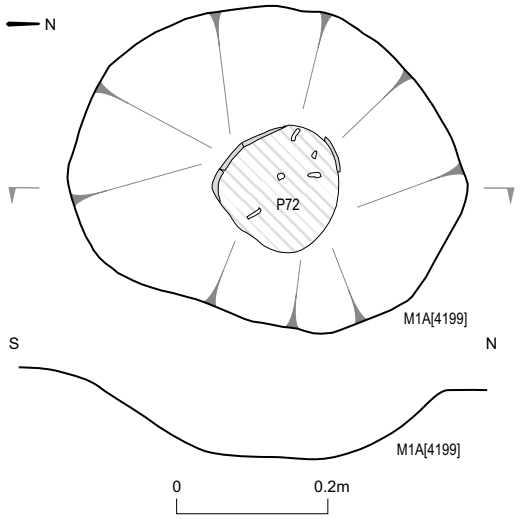
Type: urned and furnished (Type 5)
Date: probably AD40–65
Sex: uncertain
Age: adult
Finds: cinerary urn and accessory vessel

This burial was urned and furnished, with moderate to heavy truncation on its western side and the eastern extent lost to a land drain (Fig 4.24). The pit was 0.57m wide and 0.12m deep with moderate sides and a flat base. The cinerary urn <P70> was on the north-eastern side and contained the cremated remains (192g) of an adult within brown silty clay. The accessory vessel <P71> lay directly to the south of this urn. The grave fill was mid grey-brown silty clay with occasional pebbles and charcoal flecks.

Finds catalogue

<P70> Lower part of a closed form, cinerary urn. 116 sherds, 459g. F09. Not illustrated.

<P71> Probable butt beaker, lower sherds with vertically-combed decoration, accessory vessel. 69 sherds, 193g. R07. Not illustrated.



Burial M1A[4199], urn <P72>

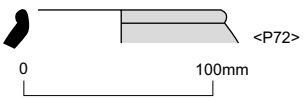


Fig 4.25 Cremation burial M1A[4199]

CREMATION BURIAL M1A[4199]

Type: urned (Type 4)
Date: early Roman
Sex: uncertain
Age: adult
Finds: cinerary urn

This urned cremation burial was located at the north-eastern extent of the cemetery and was moderately truncated (Fig 4.25). The pit was oval, 0.52m by 0.42m in plan, and 0.09m deep with gentle sloping sides and a flat base. The cinerary urn <P72> was central to the pit and the lower half survived within which was the cremated bone (308g) of an adult mixed into a brown silty clay matrix and several large stones. The grave fill was a dark grey-orange silt.

Finds catalogue

<P72> Rolled rim jar, cinerary urn. 147 sherds, 198g. F17.

Cremation burial M1A[4174]

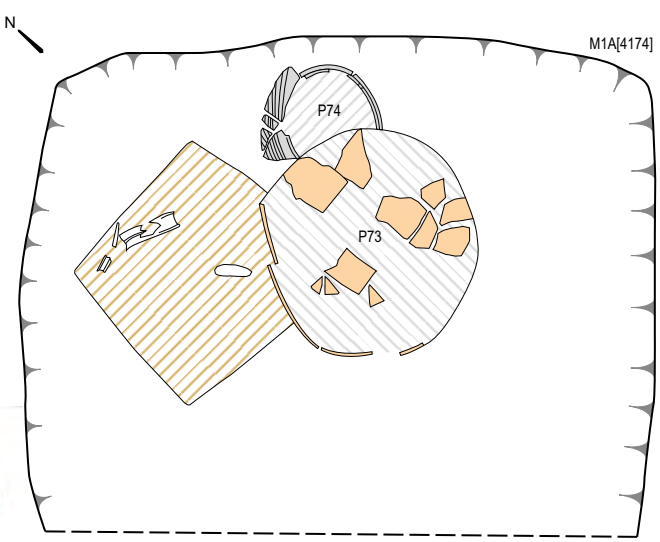
Type: urned, unurned and furnished (Type 9)
Date: early Roman
Sex: up to three individuals including a probable female
Age: at least two probable adults
Finds: iron brooch, two cinerary urns and a possible accessory vessel

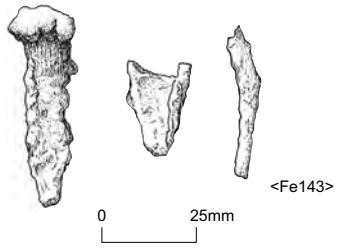
This burial was urned, unurned and furnished, and had suffered moderate truncation (Fig 4.26). Cremated bone lay unurned in a square area and in two cinerary urns <P73> and <P74> to the east of this. It is uncertain if these were the remains of one, two or three individuals. The pit was square, 0.85m wide by 0.15m deep, with steep to near vertical sides and a flat base. The unurned deposit was dark grey-brown sandy clay deposit with frequent cremated bone that covered an area of *c*.0.28m by 0.26m. Its east side was overlain by the lower half of a large flagon <P73>, within which was mid grey-brown sandy silty clay with the frequent cremated bone (980g) of a possible adult female. Directly to the north of the flagon was a jar <P74> filled by mid grey-brown sandy silty clay with the cremated bones (368g) of an unsexed adult. The long bones lay down one side of the urn and an iron Nauheim derivative brooch <Fe143> was on top. There were 17 sherds from two vessels, <P75> and <P76> in the mid grey-brown sandy silty clay grave fill.

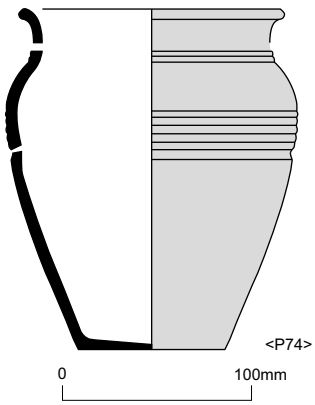
Finds catalogue

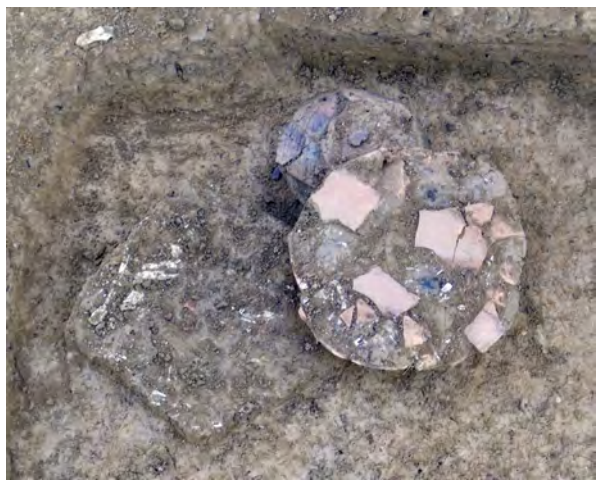
<P73> Lower half large flagon, cinerary urn. 107 sherds, 1,183g. R03 (VER WH). Not illustrated.
<P74> Jar, wide-mouthed, tall everted rim, ridged zones at neck and girth, handmade, very fragmented, cinerary urn. 92 sherds, 650g. F17.
<P75> Everted rim jar with ridging on the body, handmade, accessory vessel. 14 sherds, 23g. F17. Not illustrated.
<P76> One body and two base sherds from a closed form. 17 sherds, weight unknown. R06. Not illustrated.
<Fe143> Nauheim derivative brooch, iron. Complete, in four pieces but heavily encrusted in corrosion products. Rectangular sectioned bow, tapered to a point with solid triangular shaped catch plate. Circular sectioned pin broken, lower part of pin still in place behind catch-plate. *c*.70mm long. Mid/late 1st century AD.

Burial M1A[4174], urn <P74> with iron brooch <Fe143>









Burial M1A[4174], urn <P74> top

Fig 4.26 Cremation burial M1A[4174]

CREMATION BURIAL M1A[4180]

Type: urned, unurned and furnished (Type 9)
Date: early Roman
Sex: uncertain
Age: adult
Finds: one misc. iron fragment, a ceramic roundel, cinerary urn and accessory vessel

This urned, unurned and furnished cremation burial lay in the middle of the cemetery and had suffered slight truncation and (Fig 4.27). The pit was oval, 0.44m by 0.37m in plan, by 0.15m deep with a steep-sided asymmetrical profile and uneven base. The basal fill was light grey silty clay with cremated bone and ash, 30mm thick. On top of this was cinerary urn <P77> and accessory vessel <P78>. The urn contained light grey-brown sandy silty clay and the cremated remains of an unsexed adult, which together with the unurned material weighed 691g. Frequent charcoal pieces were found throughout and it seems likely that material all derived from the same individual. Two objects were found in the urn; an incomplete and unidentified iron object and a small ceramic roundel <P79>, which was laid on top of the urn. Directly to the north of the urn was a flagon <P78>. The grave fill was light grey-brown silty sandy clay with flecks of charcoal and cremated bone from pyre debris.

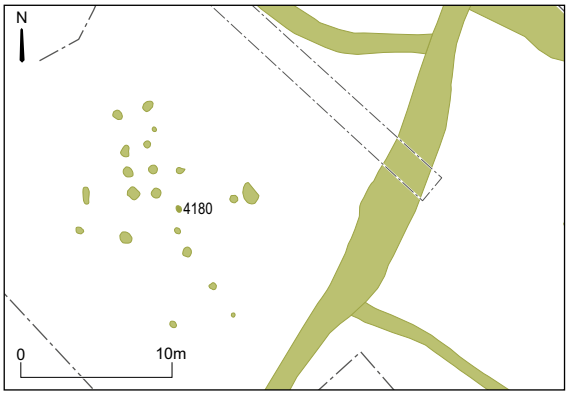
Finds catalogue

<P77> Wheel-made jar, everted rim, wide-mouthed, fragmented, cinerary urn. 94 sherds, 680g. R07.

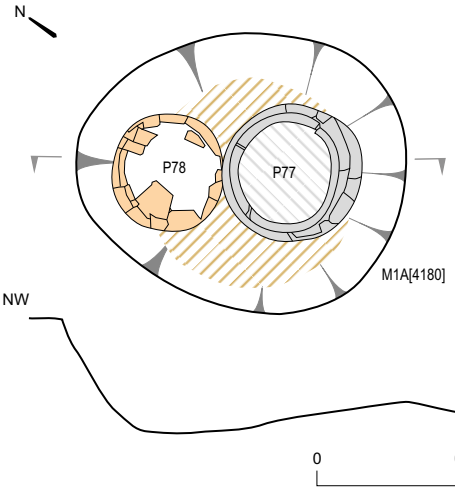
<P78> Lower half of a very thin-walled small flagon, accessory vessel. 86 sherds, 242g. R03 (VER OX). Not illustrated.

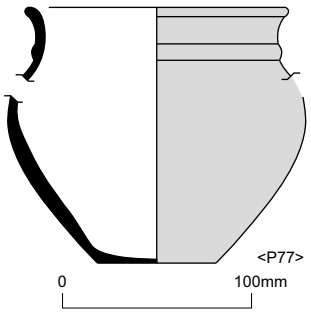
<P79> Ceramic roundel, reused body sherd of a locally produced grog-tempered ware vessel. Edges pared down to form a disc, 29mm in diameter, 4mm thick. Worn surface of disc has a faint sheen and is smooth. 1 sherd, 3.6g. F09/F17.

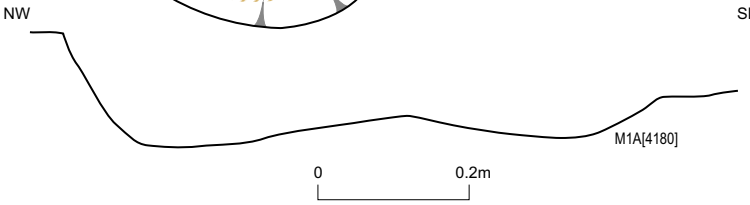
<Fe4180> Misc. fragment, iron. Small flat splayed terminal with tapered square-sectioned shank, 26mm long. Clenched terminal.



Burial M1A[4180], urn <P77>, right, over bone deposit, looking north-east







Burial M1A[4180], urn <P77> with ceramic disc <P79>

Fig 4.27 Cremation burial M1A[4180]

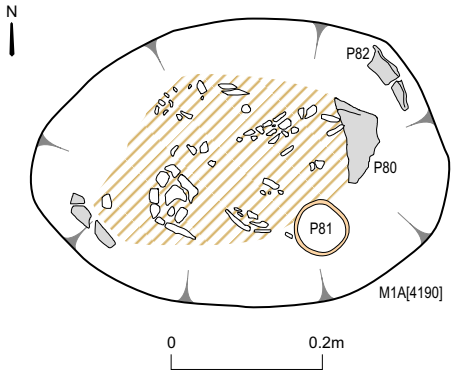
CREMATION BURIAL M1A[4190]

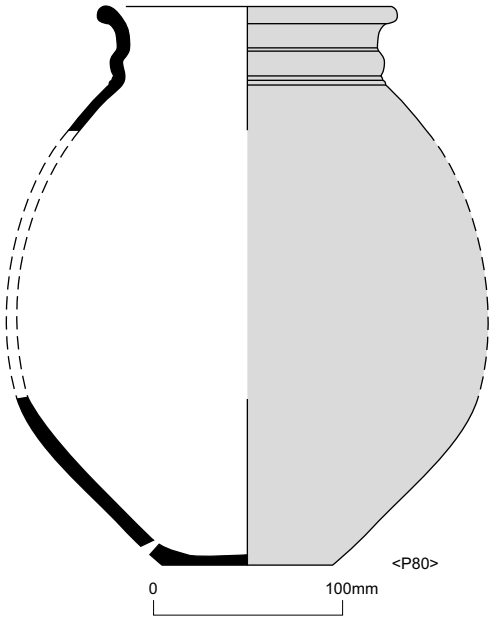
Type: probable urned and furnished (Type 5)
Date: early Roman
Sex: uncertain
Age: 2 adults, one middle aged
Finds: brooch, ring, cinerary urn and three accessory vessels

The identification of the burial type is tentative as it was moderately to heavily truncated at the centre of the cemetery (Fig 4.28). The pit was oval, 0.55m by 0.38m in plan, by 0.15m deep with gentle sloping sides and a slightly concave base. Ploughing had fragmented four vessels and scattered the cremated bone. It was thought that there was only one was a cinerary urn <P80>, with the rest being accessory vessels <P81-83>. The cinerary urn <P80> was a jar located at the east side of the pit. The jar was pierced twice and contained some cremated bone. Additional cremated bone was found lying above the fragmented vessels and was probably part of an unurned deposit post-dating the insertion of pottery vessels in the pit. Collectively the cremated bones comprised the remains of two people; an adult of at least middle age (748g) and another adult (474g). A copper-alloy brooch <Cu151> was probably interred in burial urn <P80> and accessory vessels <P81> and <P82> lay to the north and south, with a third on the west side <P83>. The grave fill was dark brown silty sandy clay and produced early Roman ring <Cu100>.

Finds catalogue

<P80> Wheelmade necked jar with a bulged, cordoned neck, post-firing drilling holes through the neck and through the wall near the base, very fragmented, cinerary urn. 141 sherds, 939g. R06.
<P81> Lower half of a small flagon, accessory vessel. 43 sherds, 133g. R03 (VER WH). Not illustrated.
<P82> Small, wheelmade jar, everted rim, accessory vessel. 69 sherds, 97g. R06. Not illustrated.
<P83> Jar, body sherds, grey sandy ware, accessory vessel. 6 sherds, 30g. R06. Not illustrated.
<Cu151> Nauheim derivative brooch, copper alloy. Almost complete but badly damaged. Forged from rolled or folded sheet, the spring has four coils. Thin rectangular sectioned bow tapering to a foot, vestige of foot protruding from the underside. Simply decorated with a centrally placed shallow groove down the front of the bow, *c.*45mm long. Type 3.b.2 (Mackreth 2011, plate 8, 4302), mid/late 1st century AD.
<Cu100> Annular ring with irregular cross-section, copper alloy. Early Roman.






Burial M1A[4190], accessory vessel <P81> bottom right

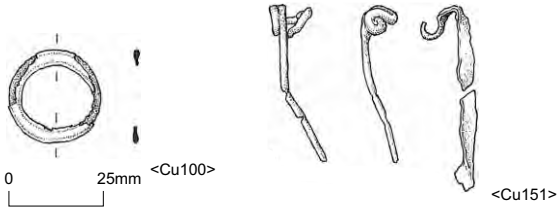
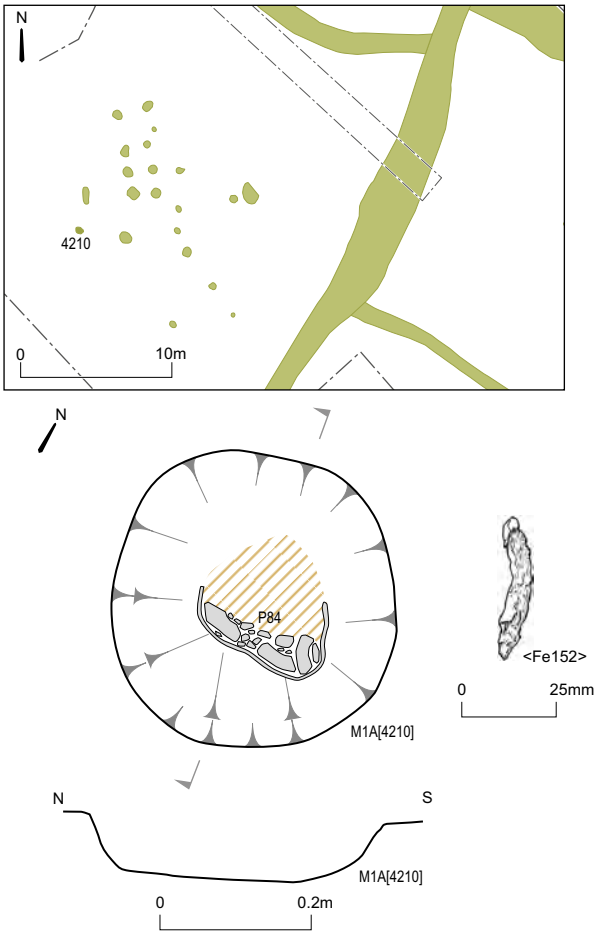
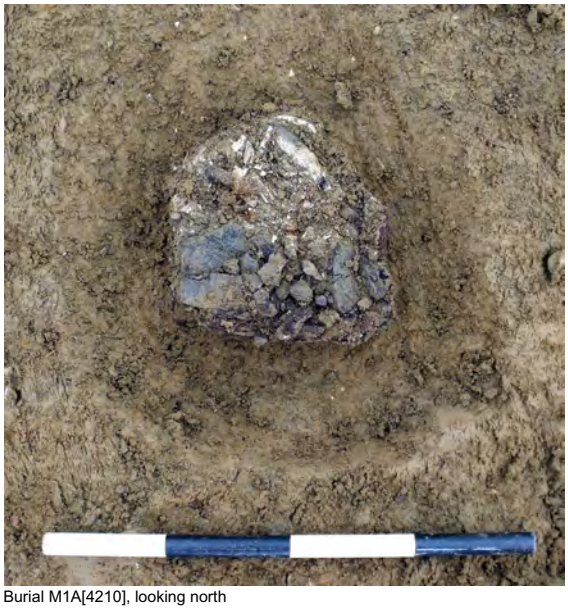


Fig 4.28 Cremation burial M1A[4190]





Burial M1A[4210], looking north

Fig 4.29 Cremation burial M1A[4210]

CREMATION BURIAL M1A[4210]

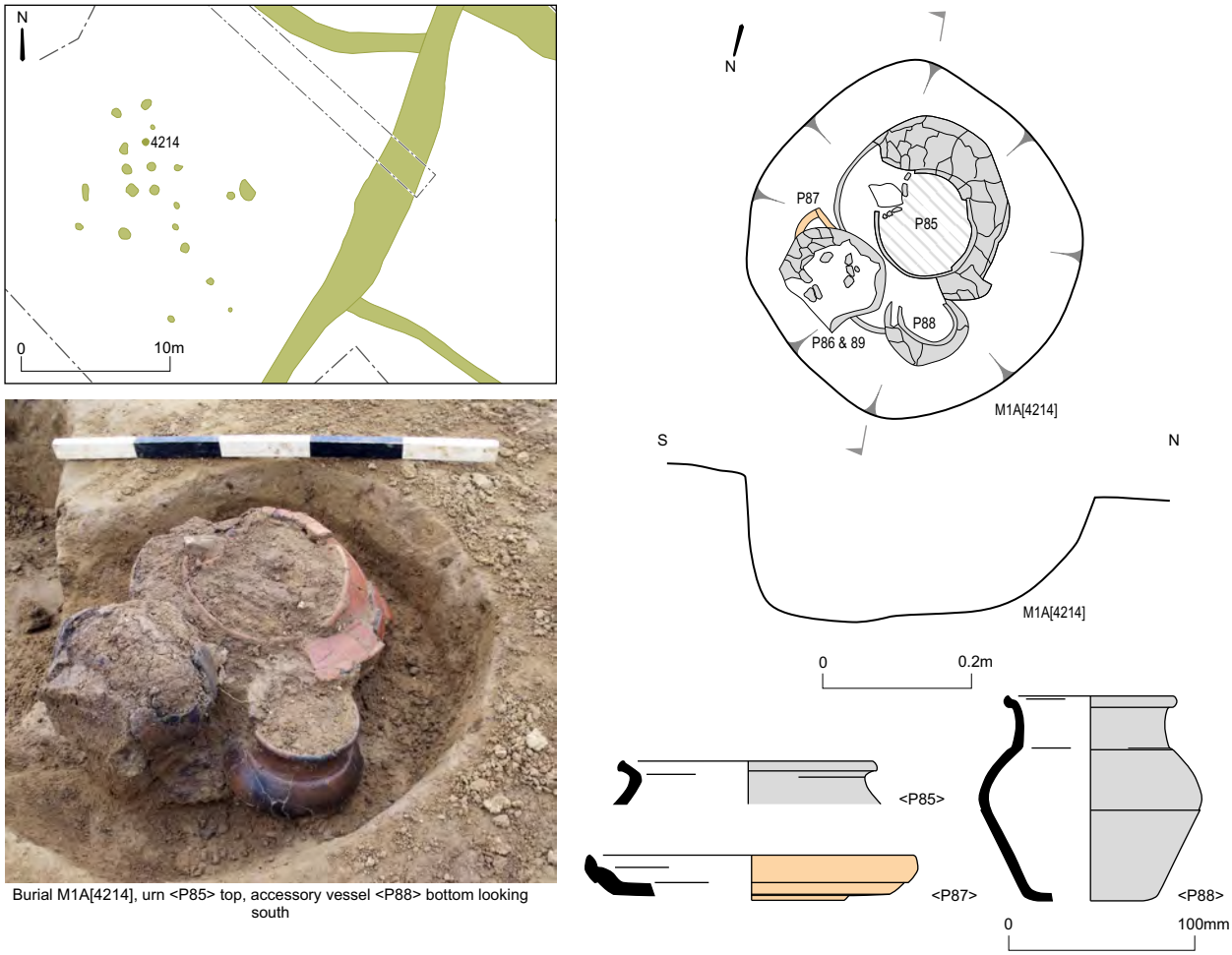
Type: urned (Type 4)
Date: early Roman
Sex: uncertain
Age: adult
Finds: iron nail and cinerary urn

This urned cremation, at the western side of the cemetery, was heavily truncated (Fig 4.29). The pit was circular, 0.40m in diameter by 0.12m deep, with very steep sides and a flat base. The cinerary urn <P84> was placed in the centre of the pit and contained the cremated bones (374g) of an unsexed adult within a dark brown silty clay. A single nail <Fe152> was recovered from within the urn. The grave fill was mid grey-brown silty clay with charcoal flecks.

Finds catalogue

<P84> Jar, body sherds from a closed form, cinerary urn. 98 sherds, 290g. R07. Not illustrated.

<Fe152> Nail, iron. Incomplete, head missing or no distinct head. Square sectioned shank tapered to a point with curved profile. Fragment of burnt bone adhered to terminal. 35mm long.



Burial M1A[4214], urn <P85> top, accessory vessel <P88> bottom looking south

Fig 4.30 Cremation burial M1A[4214]

CREMATION BURIAL M1A[4214]

Type: urned and furnished (Type 5)
Date: AD40–65
Sex: uncertain
Age: adult
Finds: cinerary urn and three accessory vessels

This urned and furnished cremation burial lay within the northern part of the cemetery where it had only suffered slight truncation (Fig 4.30). The sub-square pit was 0.43m wide by 0.20m deep with steep to near vertical sides and flat base. In the centre of the pit was a cinerary urn <P85>, a butt beaker that contained the cremated bones (561g) of an unsexed adult within a predominantly brown silty clay matrix. Three accessory vessels were located directly to the north and east of the urn (<P86- P88>). The grave fill was light grey-brown silty sandy clay which produced two pottery sherds.

Finds catalogue

<P85> Butt beaker with cordons and zones of faint combing imitating rouletting, very fragmented, cinerary urn. 205 sherds, 623g. F17.
<P86> Everted rim jar, very fragmented remains, accessory vessel. 201 sherds, 288g. R07. Not illustrated.
<P87> Platter imitating an imported moulded form, CAM8 (Thompson 1982, G1-6), accessory vessel. 54 sherds, 98g. F17.
<P88> Wheelmade everted rim jar, slight lid-seating, very worn base angle possibly originally with a footstand or similar, accessory vessel. 61 sherds, 226g. F35.
<P89> Beaker rim sherd. 1 sherd, 6g. R07. Not illustrated.
<P90> Pedestalled base. 1 sherd, 13g. R06. Not illustrated.

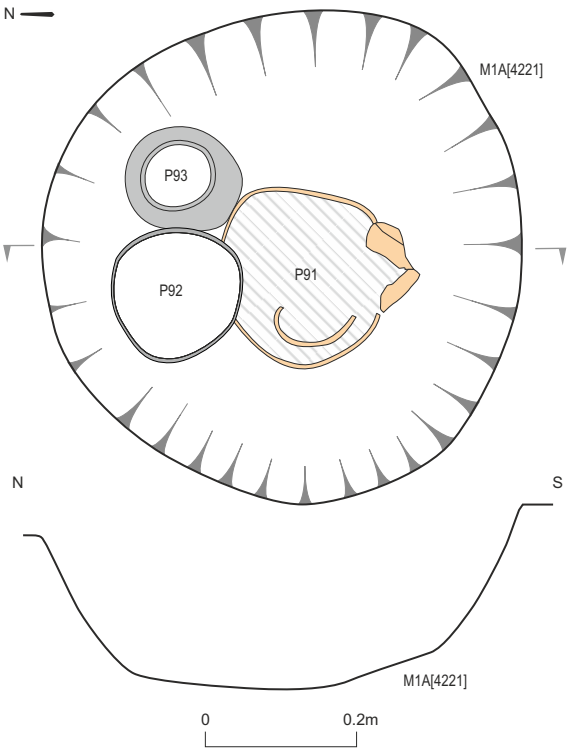
Cremation burial M1A[4221]

Type: urned and furnished (Type 5)
Date: AD40–65
Sex: uncertain
Age: adult
Finds: cinerary urn and two accessory vessels

This urned and furnished burial was in good condition (Fig 4.31). The pit was circular, 0.63m in diameter and 0.22m deep, with steep sides and a flattish base. In the centre of the pit was a cinerary urn <P91>. A total of 547g of cremated bone from an adult was put in the urn with long bones placed in the base and sides and the skull on top. North of the urn were two accessory vessels (<P92-P93>); one contained a mass of charcoal in the base and on top. Two separate deposits derived from pyre debris. A mid to dark grey silty clay with frequent charcoal pieces covered the top of the three vessels, 100mm thick, and perhaps comprising fragments from a burnt wooden plank. Charcoal analysis identified ash, oak and Maloideae; ash was most dominant throughout. The grave fill was mid grey-brown sandy silty clay with occasional charcoal pieces.

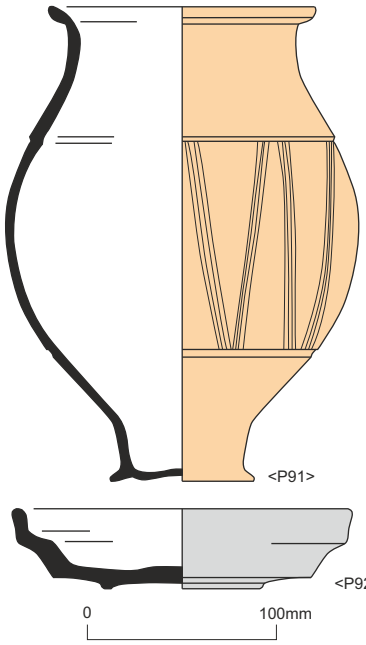
Finds catalogue

<P91> Large butt beaker with combed decoration, blackened on one side, cinerary urn. 130 sherds, 664g. R05.
<P92> Handmade platter imitating an imported moulded form, CAM8 (Thompson 1982, G1-6), accessory vessel. 77 sherds, 407g. F11.
<P93> Handmade rolled rim jar, very degraded, accessory vessel. 198 sherds, 346g. F09.
<P94> Jar, small fragments. 5 sherds, 6g. F09.



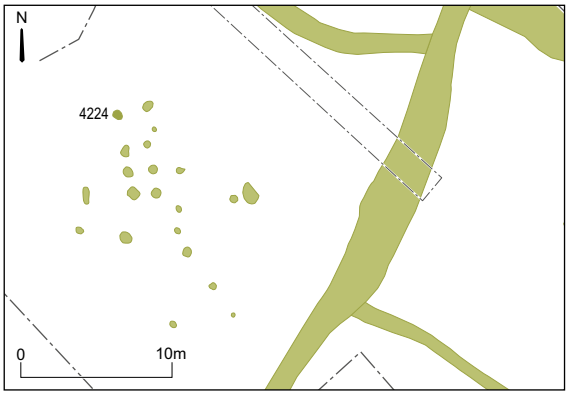
Burial M1A[4221], urn <P91> right, <P93> with pyre debris top, looking east

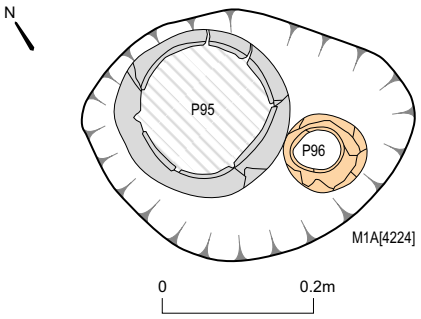
Accessory vessel <P93>



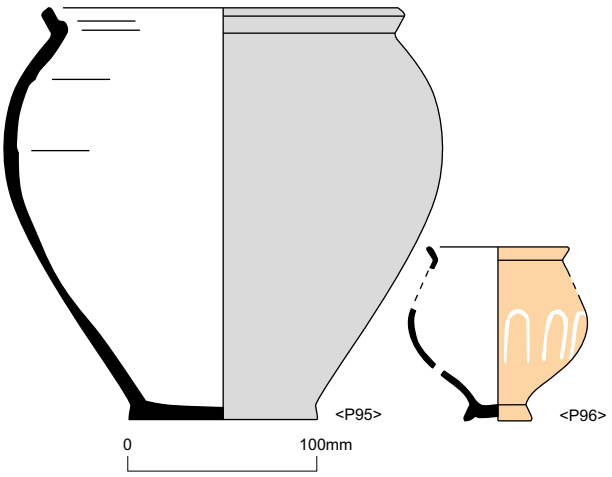
Pyre debris in <P93>

Fig 4.31 Cremation burial M1A[4221]





Burial M1A[4224], urn <P95> right, looking north-east



Burial M1A[4224], flint in accessory vessel <P96>

Fig 4.32 Cremation burial M1A[4224]

CREMATION BURIAL M1A[4224]

Type: urned and furnished (Type 5)
Date: early Roman
Sex: uncertain
Age: juvenile
Finds: cinerary urn and accessory vessel

This urned and furnished cremation burial, furthest north within the cemetery, was in good condition, (Fig 4.32). The pit was oval, 0.45m by 0.33m in plan, and 0.18m deep with steep sides and a concave base. The cinerary urn <P95> was placed at the north-west side of the pit and contained cremated bone (834g) of a juvenile with the long bones laid in the base and brown silty clay above. An accessory vessel <P96> was placed directly to the south-east of the urn which contained a large lump of natural flint, 70x60mm that protruded above the rim. The grave fill was a mid dark brown silty sandy clay with occasional flint <20mm in size.

Finds catalogue

<P95> Lid-seated jar, slightly sooted exterior, handmade, cinerary urn. 43 sherds, 1,565g. R07.

<P96> Globular beaker with a short everted rim, decorated with white painted arcading, very fragmented, accessory vessel. 85 sherds, 144g. R05.

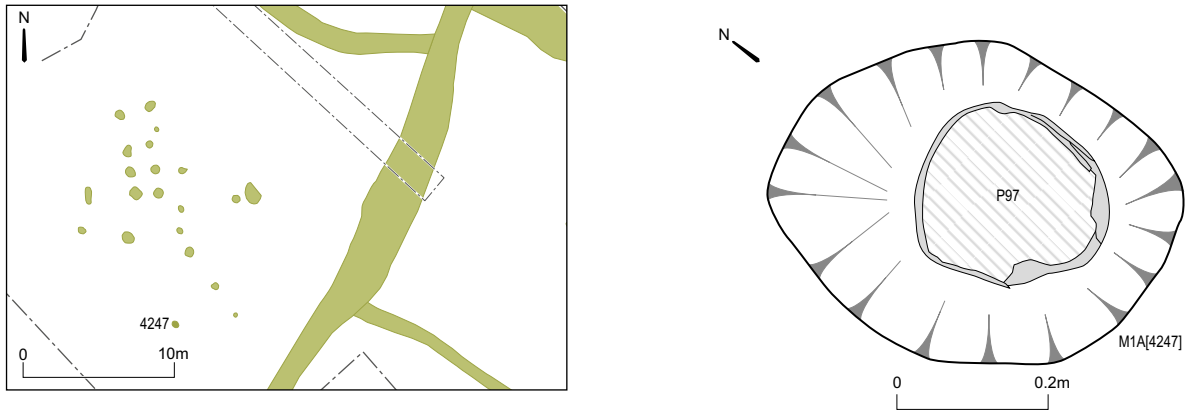


Fig 4.33 Cremation burial M1A[4247]

CREMATION BURIAL M1A[4247]

Type: urned (Type 4)
Date: early Roman
Sex: uncertain
Age: juvenile
Finds: cinerary urn

This burial was in the southern part of the cemetery and was moderately truncated (Fig 4.33). The oval pit was 0.55m by 0.45m in plan, and 0.12m deep with moderate to steep sides and a flat base. The cinerary urn <P97> found at the centre of the pit had a thin layer of probable pyre debris in the bottom mixed with pink/red silt clay and burnt flint. This was overlaid by the cremated bone (313g) of a juvenile with brown, slightly yellow, silty clay with occasional small flint above. The grave fill was mid grey-brown silty sandy clay with charcoal flecks and small stones.

Finds catalogue
<P97> Wheelmade, rolled rim jar, very fragmented, cinerary urn. 356 sherds, 1,974g. R07. Not illustrated.

Cremation burial M1A[4234]

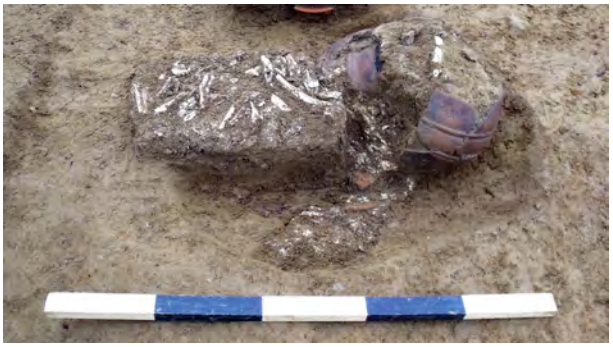
Type: urned and unurned (Type 8)
Date: early Roman
Sex: uncertain
Age: adult
Finds: cinerary urn

This urned and unurned burial was cut by a later burial, M1A[4193], on its northern side, but was well preserved (Fig 4.34). The pit was sub-rounded, 0.51m by 0.50m, and 0.07m deep with steep sides and a flat base. The cinerary urn <P98> was squashed and the contents were amalgamated with unurned cremated bone (909g) of an adult to the west. Skull fragments were placed at the base of the urn with brown silty clay above. The unurned deposit had a small concentration at the base of the pit to the south of the urn with a larger deposit above and mid grey-brown loamy clay separating them. The upper deposit partly overlay the western extent of the pit, *c*.0.30m by 0.20m in extent which had been added after the pit was partly backfilled.

Finds catalogue

<P98> Everted rim jar, base with slightly protruding foot, friable and very fragmented, cinerary urn. 45 sherds, 880g. F17.

Burials M1A[4234] and M1A[4193]



Burial M1A[4234]

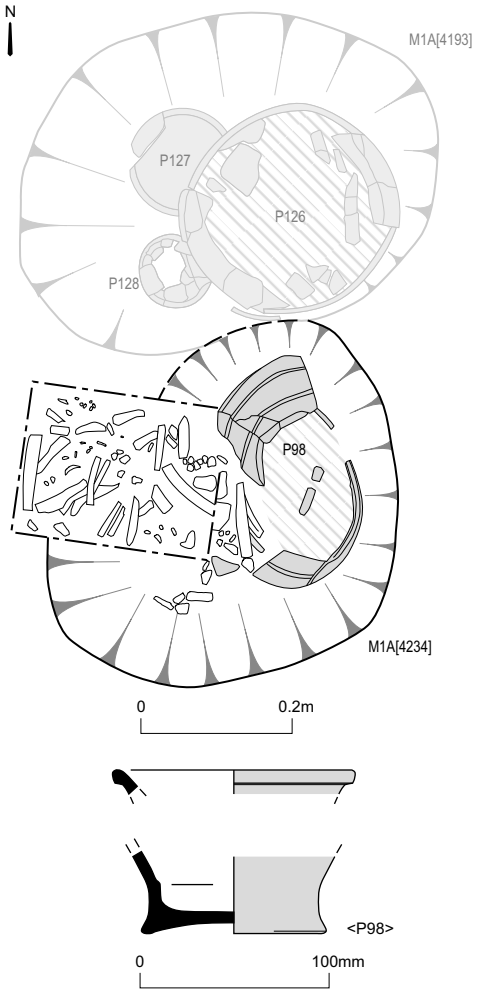


Fig 4.34 Cremation burial M1A[4234]

RELATIONSHIP TO THE NEARBY BOUNDARY DITCHES

Ditches lay close to the cemetery site, and from the mid 1st century AD onwards additional boundaries were added. The principal north-east to south-west boundary ditch M1A[4237] was lengthened as it was recut, and side branches may have bounded two rectangular enclosures laid out to either side, noted as cropmarks (Figs 4.2 and 4.60). It was not possible to determine if these were contemporary. It is likely that the enclosures supported agricultural practices associated with a settlement, although since the instances of animal bone and pottery were fairly low, with none of them providing evidence for butchery, they were probably peripheral to domestic occupation. Charred seeds from the ditch fills were few, and there was no evidence for crop processing.

The principal boundary recut was 1.97m wide by 0.53m deep, with widely splayed sloping sides and a broad flat base. The fill comprised firm mid yellow-brown sandy silt and clay with grey and red mottles, interpreted as a combination of silting and in-wash material that suggested some post-depositional fluctuations in water content. Five sherds (116g) of pottery were recovered together with burnt stone.

A possible rectangular enclosure, *c.*30m by 27m and visible as an aerial cropmark, lay on the south-east side of the principal boundary and was bounded by a ditch extending from it to the south-east, M1A[4004]. This smaller ditch was 0.95m wide by 0.29m deep and roughly V-shaped, its profile having been slightly eroded into rounded edges. The fill comprised firm mid brown silty sand and clay with occasional stone or chalk nodules, and mottled with iron salts, representing a mixture of silting and in-wash material. The disuse of the ditch was marked by a dump of pottery of 1st to 2nd-century AD date in the upper fill comprising 51 sherds (357g), suggesting a short period of use for this enclosure.

Within the enclosure was a narrow gully, M1A[4012], 0.40m wide by 0.08m deep, that partitioned it from north-west to south-east. The gully had a shallow curved profile, filled by firm mottle mid orange-brown sandy clay that produced one sherd (13g) of undiagnostic pottery.

A large pit, M1A[4014], within the north edge of the enclosure was roughly oval, 4.45m long by over 2.0m wide and 1.04m deep, and aligned with its long axis down slope, allowing it to overflow into the adjacent ditch. The sides of the pit were fairly gentle, descending into a broad rounded base. The basal fills comprised layers of firm mid grey-brown clay, gradually becoming darker and siltier towards the surface. Iron panning was concentrated towards the base. The upper fill was firm mid orange-brown sandy loam with four residual sherds (15g) of late Iron Age pottery. The pit may have been for clay extraction, but does not seem to have been filled in rapidly and, whilst it appeared too deep and steep for animals to drink from, it collected water easily and could have been used as a well.

On the north-west side of the principal boundary was another enclosure area, although its true extent was much harder to discern as a cropmark. The extent exposed by detailed excavation represents perhaps one third of its total area. Its south-west boundary ditch M1A[4010] extended to the north-west and was 1.45m wide by 0.37m deep with sides that were widely splayed, slightly eroded and with a broad flat base. The fill comprised a firm mid grey-brown silty sand and clay with occasional pebbles, mottled with yellow chalk from silting and in-wash. A single sherd (168g) of residual late Iron Age pottery was recovered.

PHASE 3: ROMAN, LATE 1ST TO EARLY 2ND CENTURIES AD

The cemetery continued to develop in the late 1st to mid 2nd centuries AD with the addition of 12 cremation burials (Fig 4.35). The nearby enclosure boundaries were modified and shifted south-west towards the cemetery. The distribution of burials was mainly clustered in the southern area of the cemetery, indicating a distinct migration of burial focus, which was perhaps a response to the gradual encroachment of the northern boundary ditch and a continuation of the mid 1st-century linear arrangement to the east. The 12 burials of this phase contained 15 individuals, 32 pottery vessels and six nails (Table 4.3).

The majority of the cremation burials for this period had the remains of a single individual. There was one instance of two adults, male and female, buried together in separate urns, at the same time. Another burial had two adults, one slightly younger of unknown gender, both buried in the same urn. It might be possible to explain these multiple burials as the interments of couples or siblings.

The quantity of accessory vessels placed within burials was significantly higher overall than the previous phase, although two burials had no accessory vessels. South Gaulish samian dishes occurred amongst five groups of accessory vessels with two stamps from known potters: Paulus, AD70–95, M1A[4099]; and Calvus, AD65–90, M1A[4193].

Fig 4.35 Plan of burials in cremation cemetery, late 1st to early 2nd century AD, Site M1A

THE CREMATION BURIALS

CREMATION BURIAL M1A[4088]

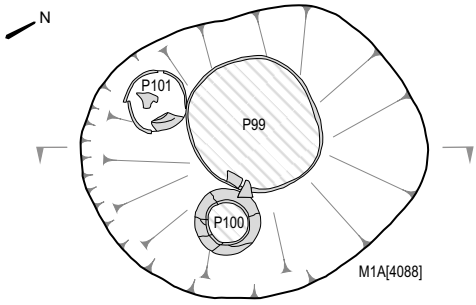
Type: urned, probable token urned and furnished (Type 6)
Date: 1st to 2nd centuries AD
Sex: uncertain male and one other
Age: young adult and possible infant
Finds: six nails, two cinerary urns and an accessory vessel

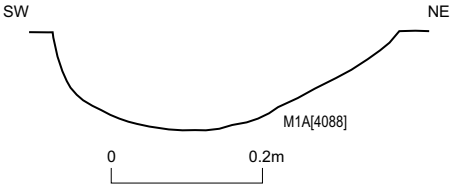
The burial in the south-east of the cemetery that was slightly to moderately truncated was an urned, probably token urned and furnished burial with the remains of two individuals (Fig 4.36). The pit was oval, 0.44m by 0.36m in plan, and 0.15m deep with steep to moderate asymmetrical sides and rounded base. The cinerary urn <P99> was a wheelmade jar in which the cremated remains (633g) of a young possibly male adult which were interred in no particular order. Pyre debris from the pit consisted of charcoal, ash and silty clay soil produced six iron nails <Fe146>. One of the nails has a faint red surface of haematite formed in the pyre at a temperature above 200ºC (Cronyn 1992, 180). Directly to the east was a small beaker <P100>, another probable cinerary urn that contained a token deposit of possible infant bone fragments (0.5g) within brown silty clay. An accessory vessel <P101> lay against the southern side of the pit. The grave fill was mid grey-brown silty clay.

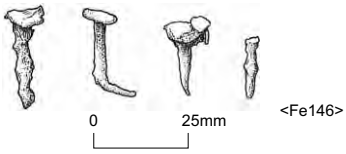
Finds catalogue

<P99> Lower part of a wheelmade jar, cinerary urn. 8 sherds, 416g. R13. Not illustrated.
<P100> Globular-bodied beaker with flared rim, probable firing flaw in base, cinerary urn. 27 sherds, 115g.
<P101> Beaker, base from a small closed vessel with a girth groove, accessory vessel. 9 sherds, 90g. R06.
<Fe146> Iron nails (x6):

(1) Flat sub-circular head with square-sectioned shank tapered to a point. Terminal clenched. No corrosion deposits adhering to the surface, but in places a faint red tinge. 30mm long, 11mm diameter head.
(2) Flat sub-circular head with square-sectioned shank tapered to a point. 25mm long, 10mm diameter head.
(3) Flat sub-circular head with square-sectioned shank. Fragments of human bone adhered to corrosion deposits on head. 19mm long, 10mm diameter head.
(4) Shank fragment only.
(5) Flat sub-circular head with square-sectioned shank tapered to a point, tip of terminal clenched, 20mm long.
(6) Flat sub-circular head with vestige of shank protruding from underside. Not illustrated.
(7) Miniscule fragment of burnt human bone adhering to outer edge of head. 10mm diameter head. Not illustrated.







Burial M1A[4088], vessel <P100> in foreground, looking north-west

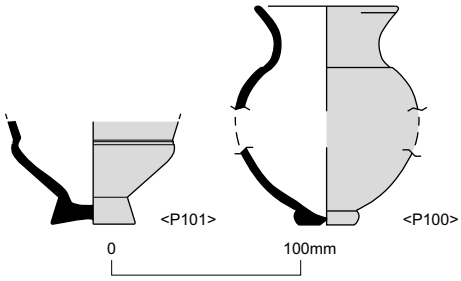


Fig 4.36 Cremation burial M1A[4088]

Cremation burial M1A[4092]

Type: urned and furnished (Type 5)
Date: AD60–117
Sex: uncertain male and female
Age: adult and adult
Finds: Two cinerary urns and three accessory vessels

The southernmost cremation burial in the cemetery was in good condition with two urned cremations and was furnished (Fig 4.37). The oval pit was 0.75m by 0.62m in plan, and 0.20m deep with steep sides and a rounded base. All five vessels were placed within the centre of the pit. The two cinerary urns <P102> and <P103> were relatively similar wheelmade jars; urn <P102> contained the cremated bone (1,042g) of a possible female adult. Adjacent to the north-east in urn <P103> was another adult, possibly male (1,094g). The long bones were placed down the side of the vessel. A beaker <P104>, which had probably been ritually clipped, lay in the centre of the pit with all the other vessels surrounding it. The other two accessory vessels comprised a samian dish <P105>, complete except for a chunk taken from its rim, and a flagon <P106>. The grave fill was mid orange-brown sandy silty clay.

Finds catalogue

<P102> Wheelmade, lid-seated jar, fragmented, cinerary urn. 167 sherds, 893g. R07.
<P103> Wheelmade jar, wide-mouthed, everted rim with undercut rim, cinerary urn. 209 sherds, 263g. R07.
<P104> Small carinated beaker with flared rim, complete apart from chip out of rim, accessory vessel. 1 sherd, 108g. R07.
<P105> South Gaulish dish with barbotine decoration, Hermet form 28, Vernhet service B2 (Brulet *et al.* 2010, 80), accessory vessel. 3 sherds, 234g.
<P106> Single-handled ring-necked flagon, complete apart from handle, no obvious handle scar, accessory vessel. 2 sherds, 410g. R03 (VER WH).
<P107> Other sherds. Rimsherds from two rolled rim jars. One small sherd of oxidised ware. 17 sherds, weight not known. R07 and R05.

Burial M1A[4092], urn <P102> left, dish <P105> centre foreground, flagon <P106> right, looking north

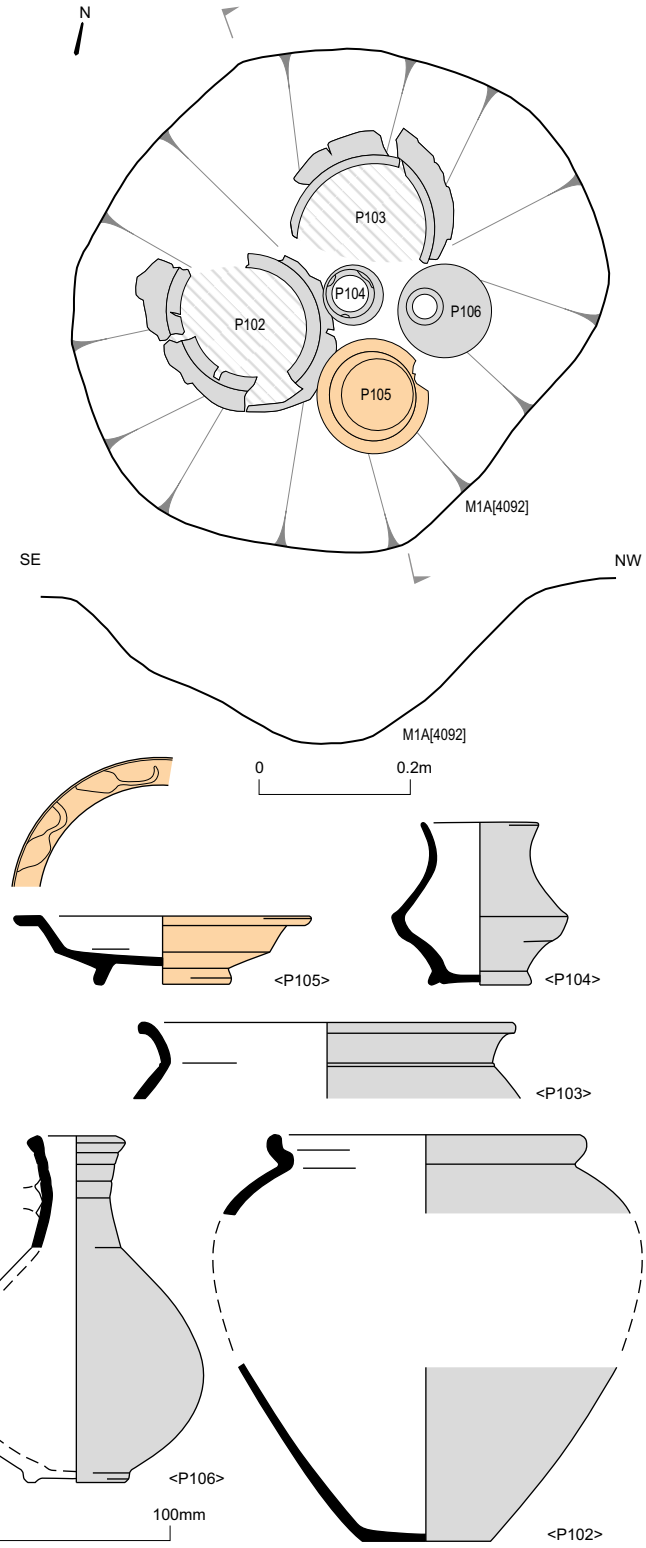
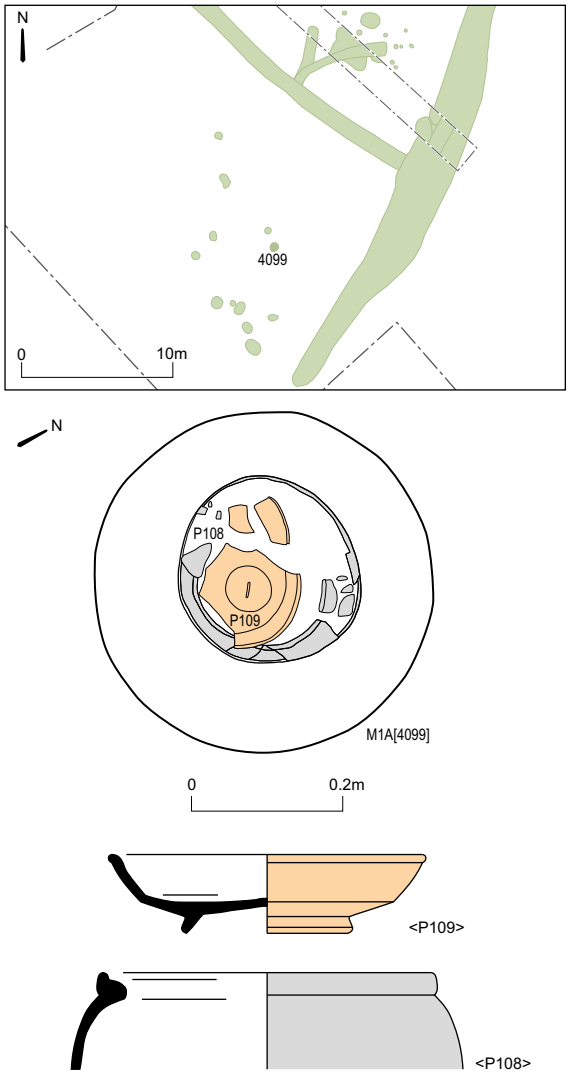


Fig 4.37 Cremation burial M1A[4092]



Burial M1A[4099], urn <P108> with Samian dish <P109> as lid

Fig 4.38 Cremation burial M1A[4099]

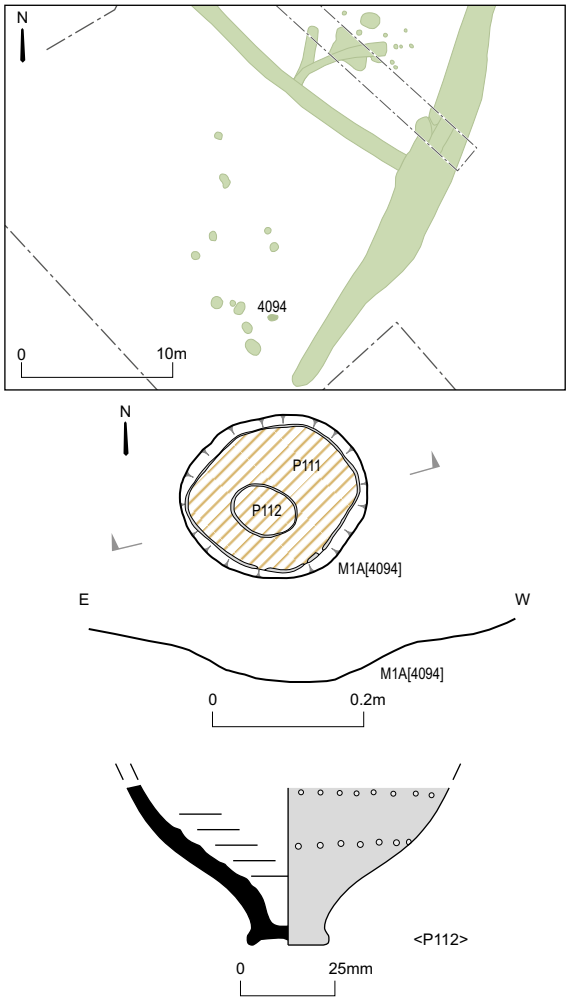
CREMATION BURIAL M1A[4099]

Type: urned and furnished (Type 5)
Date: AD70–95
Sex: uncertain
Age: young middle aged adult and uncertain
Finds: cinerary urn and an accessory vessel

This urned and furnished cremation burial was at the south-eastern corner of the cemetery and had suffered slight truncation (Fig 4.38). The pit was circular, 0.40m in diameter and 0.20m deep, with a flat base. In the centre of the pit lay the cinerary urn <P108>, a jar containing cremated bone of two individuals; a young/middle-aged adult (369g), and an individual of unknown/ indeterminate sex (161g) along with pyre debris. A burnt soil spread above the cremations contained specks of cremated bone (1g) and charcoal from ash and hazel. A samian dish <P109> was placed above the jar and used as a lid for the urn. The grave fill was a mid grey-brown silty clay with alder/hazel and ash charcoal present.

Finds catalogue

<P108> Lid-seated jar, very fragmented, possibly wheelmade, cinerary urn. 152 sherds, 870g. R13.
<P109> South Gaulish dish, Drag18, central stamp OF.PA VII potter: Paulus iii, die 3a (Hartley and Dickinson 2011, 105-6), accessory vessel. 3 sherds, 208g.
<P110> Other pottery, two small chips of South Gaulish samian. 2 sherds, 0.5g. Not illustrated.



Burial M1A[4094], looking north

Fig 4.39 Cremation burial M1A[4094]

CREMATION BURIAL M1A[4094]

Type: urned and furnished (Type 5)
Date: AD 60-117
Sex: uncertain male
Age: adult
Finds: cinerary urn and an accessory vessel

An urned and furnished burial had suffered moderate to severe truncation at the far south-eastern extent of the cemetery (Fig 4.39). The pit was circular, 0.25m in diameter and 0.12m deep, with gentle sides and a flattish base. The cinerary urn <P111> was placed centrally, and within this was a small beaker <P112> around which was the cremated bone (915g) of a possible adult male. The grave fill was mid red-brown silty clay, which also contained 24g of cremated bone.

Finds catalogue

<P111> Jar, lower part only, handmade cinerary urn. 46 sherds, 378g. R13. Not illustrated.

<P112> Lower half of beaker decorated with barbotine dots, accessory vessel. 9 sherds, 39g. R06c.

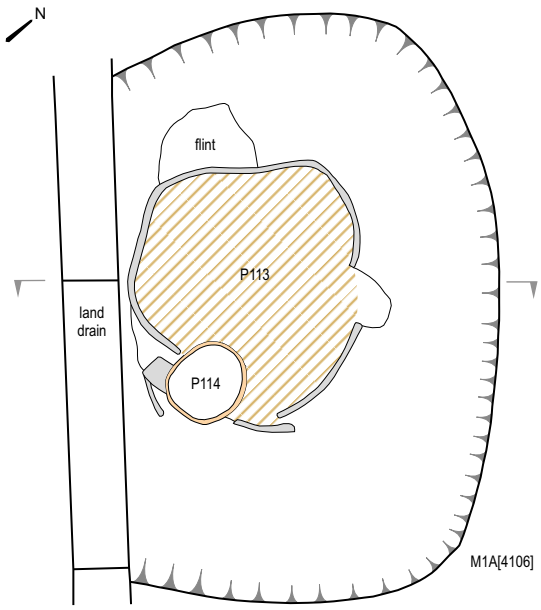
CREMATION BURIAL M1A[4106]

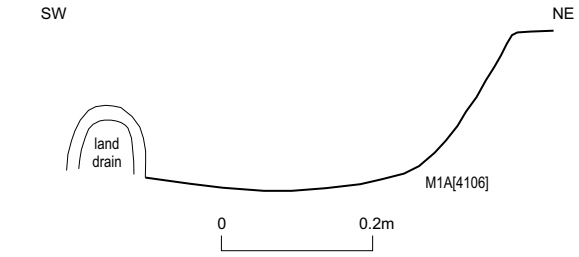
Type: urned, token urned and furnished (Type 6)
Date: later 1st century AD
Sex: uncertain
Age: middle adult +
Finds: two cinerary urns and an accessory vessel

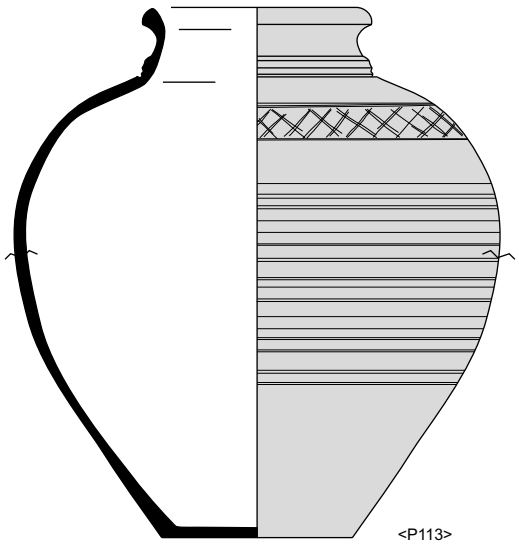
This burial, in the southern extent of the burial ground, was urned, token urned and furnished (Fig 4.40). The slightly truncated sub-square pit was 0.75m by over 0.50m in plan, and 0.20m deep with very steep sides and a flattish base. A large cinerary urn <P113> was placed centrally containing the cremated bones (1,639g) of a mature adult. A flagon <P114> lay directly to the south, also used as a cinerary urn, with a token cremated deposit (1g) of another individual. The accessory vessel <P115> was on the south-east side of the flagon with a large lump of flint wedged between the two. The grave fill was mid grey-brown silty clay.

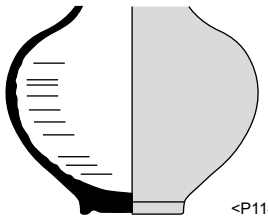
Finds catalogue

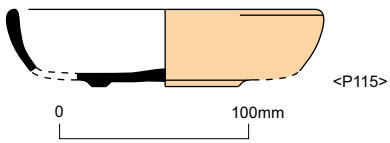
<P113> Large wheelmade jar, narrow-mouthed, necked; decorated with a faint zone of burnished line latticing on the shoulder and slightly irregular burnished horizontal lines down the body; slightly sooted, cinerary urn. 116 sherds, 1,908g. R07.
<P114> Lower part of a small single-handled flagon, cinerary urn. 40 sherds, 310g. R03 (VER WH).
<P115> Curved wall dish with a small footring, accessory vessel. 31 sherds, 157g. R06.
<P116> Small chip of South Gaulish samian. 1 sherd, weight not known. Not illustrated.











Burial M1A[4106], burial urn <P114> with modern drain, looking west

Fig 4.40 Cremation burial M1A[4106]

Cremation burial M1A[4116]

Type: urned and possibly furnished (Type 5)
Date: late 1st to early 2nd centuries AD
Sex: uncertain
Age: adult
Finds: one or more cinerary urns, total of three vessels

The cremation, in the southern part of the cemetery, has been characterised as urned and possibly furnished but this definition is tentative as the degree of damage was high (Fig 4.41). The circular pit was 0.65m in diameter and 0.20m deep with steep to moderate sides and rounded base. At least three vessels, all fragmented and in identical fabrics, lay centrally with the obvious cinerary urn <P117> on the south side. The urn contained cremated bones (948g) of an adult in brown silty clay. The two possible accessory vessels <P118> were to the north-west of this urn, but their exact positions were not distinguishable. Analysis identified several very fragmented vessels in identical fabrics which had become intermixed from a minimum of three vessels or more. Pyre debris was located over the entire area where the three fragmentary vessels were uncovered and it is possible that all three vessels were originally used as cinerary urns. The cremated bone lay as a mass between vessels. The grave fill was mid grey-brown silty sandy clay with charcoal flecks.

Finds catalogue

<P117> Wheelmade jar, wide-mouthed, necked, cordoned, burnished exterior, cinerary urn. 17 sherds, 352g. R06.
<P118> Rim of narrow-necked jar or beaker (illustrated) and a wheelmade jar, rolled rim (not illustrated), possible accessory vessels. 151 sherds, 70g. R06.

Burial M1A[4116], looking north east

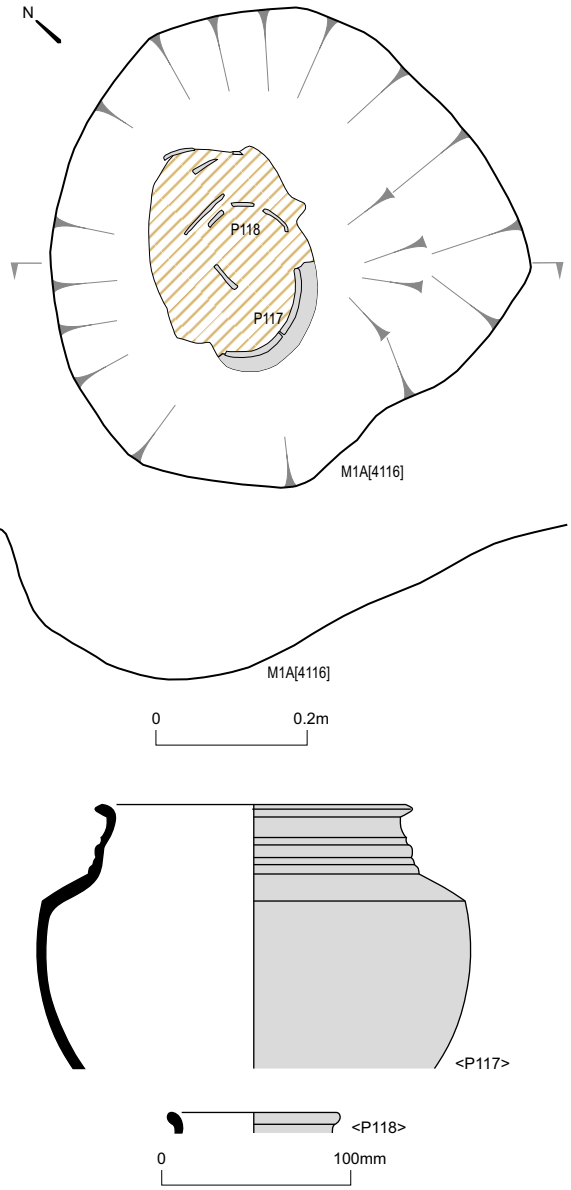
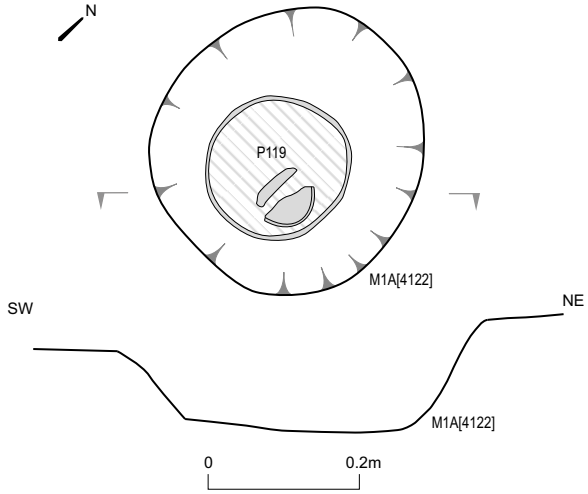


Fig 4.41 Cremation burial M1A[4116]



Burial M1A[4122], looking north-east

Fig 4.42 Cremation burial M1A[4122]

CREMATION BURIAL M1A[4122]

Type: urned (Type 4)
Date: late 1st to early 2nd centuries AD
Sex: uncertain
Age: adult
Finds: cinerary urn

This urned cremation burial was moderate to heavily truncated (Fig 4.42). The pit was circular, 0.37m in diameter by 0.10m deep, with steep to moderate sloping sides and a flat base. The cinerary urn <P119> lay centrally within the pit. It contained 495g of cremated bone of an adult within a silty brown clay matrix with occasional flint. The grave fill was mid grey-brown silty clay.

Finds catalogue

<P119> Lower fragments of a closed form, cinerary urn. 46 sherds, 436g. R06. Not illustrated.

CREMATION BURIAL M1A[4129]

Type: urned and furnished (Type 5)
Date: pre-dates *c.*AD80
Sex: uncertain
Age: young/middle adult
Finds: cinerary urn and three accessory vessels

This urned and furnished burial was located within the centre of the cemetery and contained a cinerary urn and three accessory vessels (Fig 4.43). It had been truncated with slight to moderate disturbance. The circular pit was 0.65m in diameter and 0.15m deep, with steep sides and a flat base. The cinerary urn <P120> lay centrally and contained the cremated bones (1,128g) of a young/middle adult with the long bones down the side of the urn, and the skull on top. The soil matrix within the urn was silty clay with occasional gravel. Placed vertically against the urn on its east side was a samian dish <P121>; a small flagon <P122> lay to the south and a beaker <P123> to the north. The grave fill was mid grey-brown silty clay.

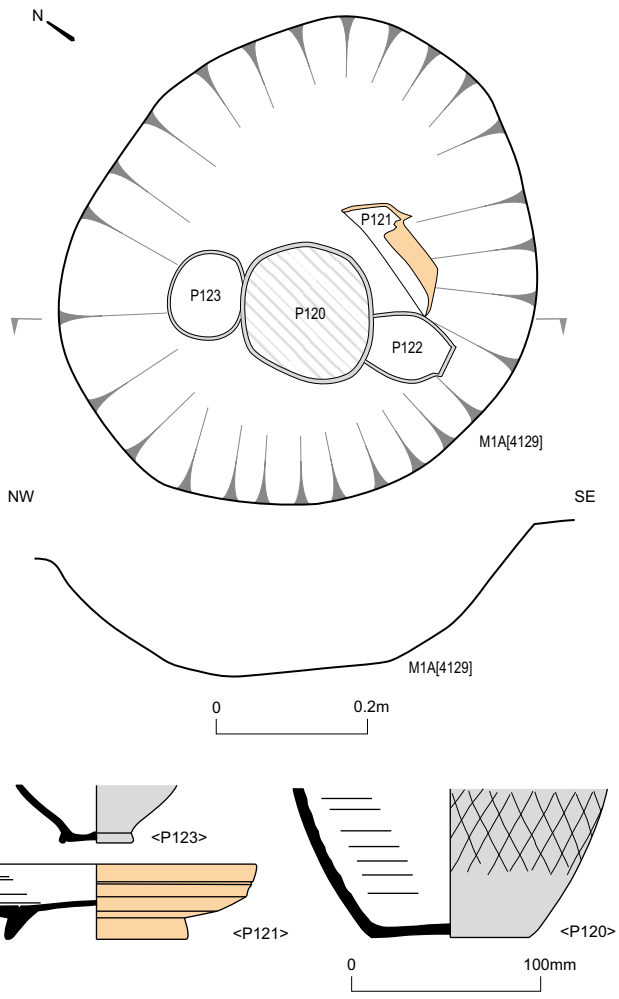
Finds catalogue

<P120> Lower half of large wheelmade jar decorated with a faint burnished line lattice, cinerary urn. 54 sherds, 650g. R07.

<P121> South Gaulish samian dish, Drag15/17, central stamp too abraded to decipher, accessory vessel. 7 sherds, 238g.

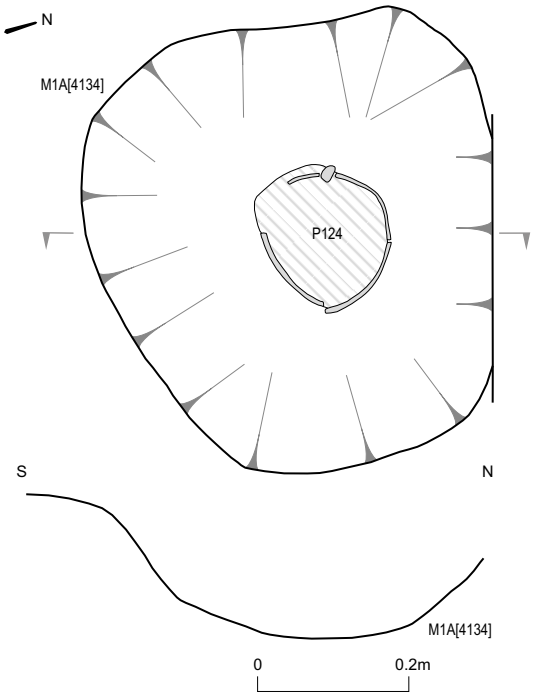
<P122> Shattered fragments of a small flagon, accessory vessel. 110 sherds, 183g. R03 (VER WH). Not illustrated.

<P123> Base of a beaker, accessory vessel. 55 sherds, 106g. R07.



Burial M1A[4129], looking north-east

Fig 4.43 Cremation burial M1A[4129]



CREMATION BURIAL M1A[4134]

Type: urned (Type 4)
Date: 1st to 2nd centuries AD
Sex: uncertain female
Age: adult
Finds: cinerary urn

The urned cremation burial lay within the southern side of the cemetery and had been slightly truncated (Fig 4.44). The sub-square pit was 0.60m by 0.55m in plan, and 0.18m deep with moderate sides and a concave base. The cinerary urn <P124> contained the cremated bones (426g) of an adult, possible female. The grave fill was medium grey-brown sandy silty clay containing two additional pot sherds <P125>.

Finds catalogue

<P124> Slow wheelmade, lid-seated jar, cinerary urn. 59 sherds, 1,159g. R07.
<P125> Rolled rim jar. 2 sherds, weight not known. R06c. Not illustrated.

Burial M1A[4134], urn <P124>, looking north

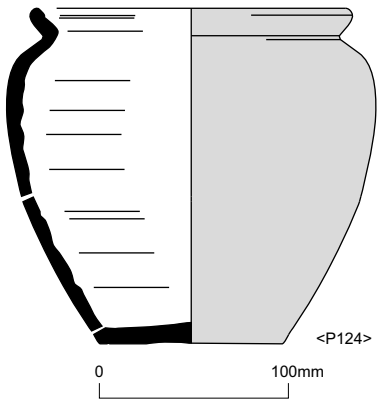
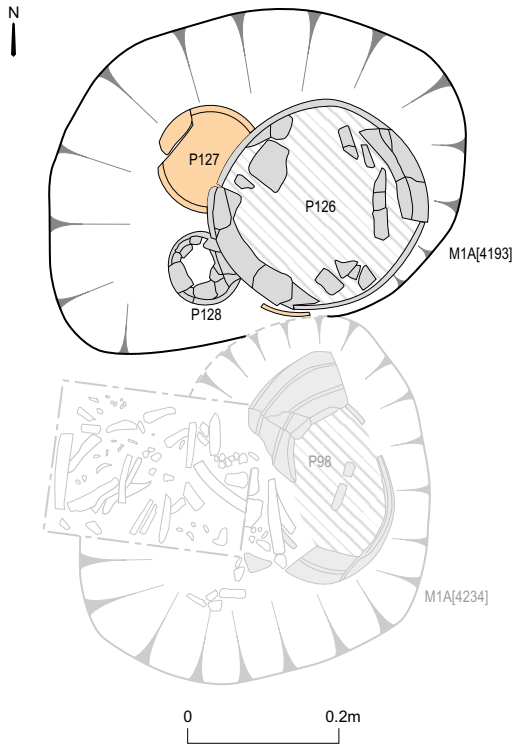


Fig 4.44 Cremation burial M1A[4134]




Burial M1A[4193], <P126> centre, looking south

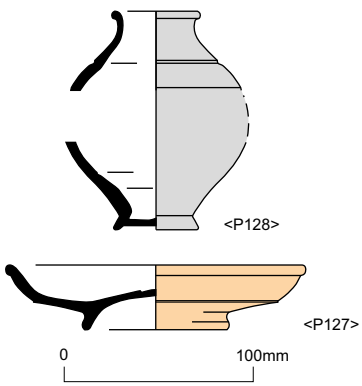


Fig 4.45 Cremation burial M1A[4193]

CREMATION BURIAL M1A[4193]

Type: urned and furnished (Type 5)
Date: AD65–90
Sex: uncertain
Age: adult
Finds: cinerary urn and two accessory vessels

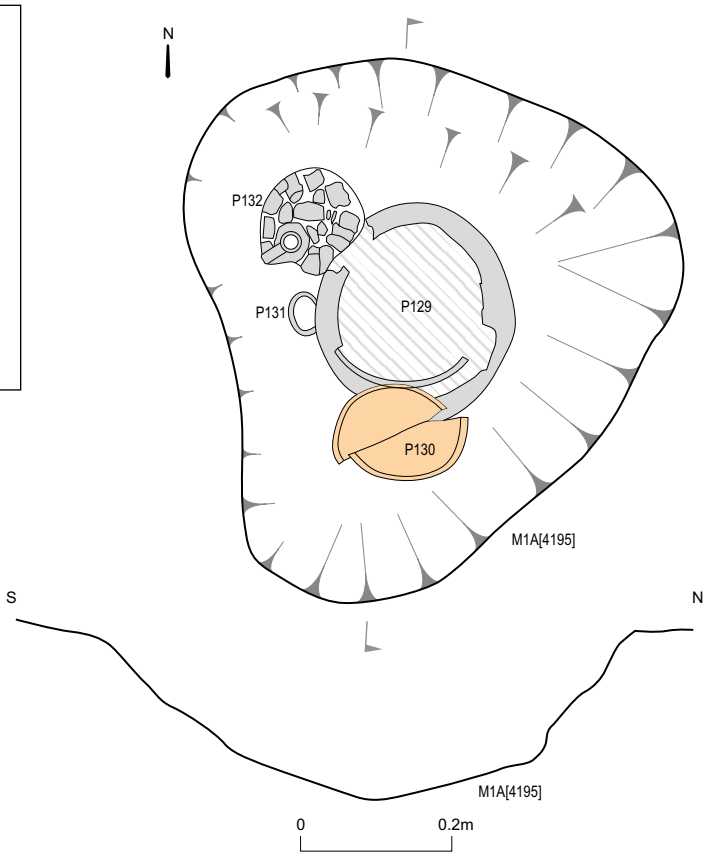
This cremation burial lay within the north-eastern part of the cemetery. It was urned and furnished and had suffered slight truncation (Fig 4.45). The oval pit was 0.55m by 0.40m in plan, and 0.28m deep with steep to moderate sides and a flat base. It cut cremation burial M1A[4234] on its northern side. Cinerary urn <P126> was a flagon, located on the east side of the pit which contained the cremated bones (222g) of an adult. Two accessory vessels <P127-128> were located adjacent to the urn on its north-west and south-west sides. The grave fill was mid grey-brown sandy clay.

Finds catalogue

<P126> Lower part of a flagon, cinerary urn. 111 sherds, 1,129g. R03 (VER WH). Not illustrated.

<P127> South Gaulish samian dish, Drag18 with an external step. Almost complete. Central stamp: OFCALV[I] (Calvus i), too abraded to identify die but in the 5 series (Hartley and Dickinson 2008b, 178-9). Accessory vessel. 7 sherds, 259g.

<P128> Wheelmade jar, narrow-necked, everted rim, accessory vessel. 62 sherds, 209g. R07.



Burial M1A[4195], burial urn <P129> centre, looking north

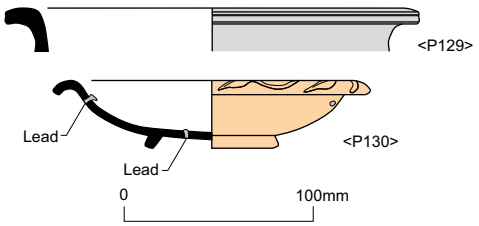


Fig 4.46 Cremation burial M1A[4195]

CREMATION BURIAL M1A[4195]

Type: urned and furnished (Type 5)
Date: AD60–117
Sex: uncertain female
Age: adult
Finds: cinerary urn and three accessory vessels

This urned and furnished burial was in a good condition and was located in the centre of the cemetery (Fig 4.46). The pit was roughly triangular, *c*.0.70m wide, and 0.30m deep with steep to moderate sides and a concave base. Cinerary urn <P129> was central and contained the cremated bones (692g) of an adult, possibly female, with long bones at the base and the skull on top. On the south side of the urn was a complete samian dish <P130>, repaired with three lead rivets. On the urn's west side was a possible beaker <P131> and to the north was a flagon <P132>. The grave fill was a red-orange-brown sandy silty clay.

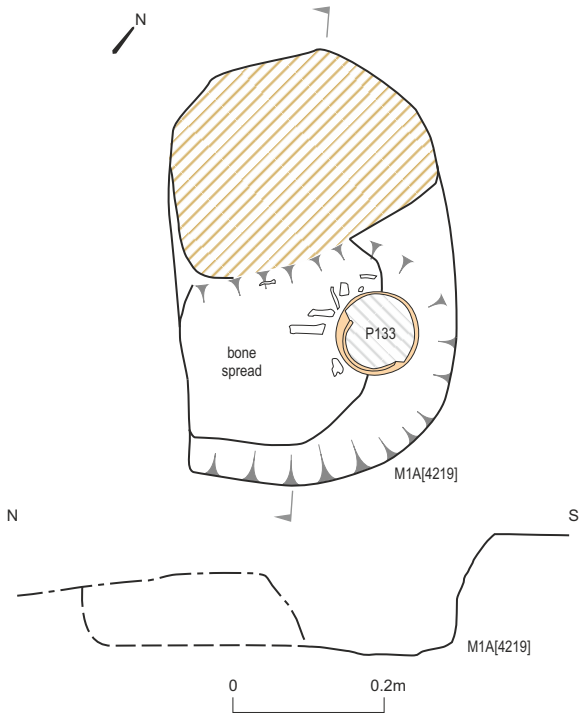
Finds catalogue

<P129> Handmade everted rim jar, with at least one body cordon; very fragmented, cinerary urn. 425 sherds, 1,712g. R07.

<P130> South Gaulish samian dish, Drag.36, almost complete. Was broken in half and then repaired with three lead rivets, accessory vessel. 2 sherds, 181g.

<P131> Small closed vessel, possibly a beaker, very fragmented remains, accessory vessel. 84 sherds, 57g. R07. Not illustrated.

<P132> Single-handled flagon, fragmented remains, accessory vessel. 70 sherds, 342g. R03 (VER WH). Not illustrated.



CREMATION BURIAL M1A[4219]

Type: unurned and furnished (Type 2)
Date: AD69-117 AD
Sex: uncertain
Age: uncertain
Finds: one accessory

This unurned and furnished burial was in good condition and lay in the middle of the cemetery (Fig 4.47). The pit was sub-rectangular, 1.0m by 0.63m in plan, and 0.28m deep with most of the remains clustered in a 0.6m by 0.35m area at its south-eastern extent. A layer of cremated bone and ash lay in the south-eastern corner upon which accessory vessel <P133> was placed. Directly to the north of this a deposit of probable pyre debris covered an area 0.35m by 0.25m, comprising charcoal (mainly oak and Maloideae) and specks of burnt bone and dark grey-brown silty clay. The grave fill was a light brown to grey-brown silty sandy clay.

Finds catalogue

<P133> Globular beaker with a short everted rim, pale oxidised colour, faint traces barbotine decoration as circles and panels of dots in same colour as fabric, accessory vessel. 20 sherds, 214g. R05.

Burial M1A[4219], pyre debris, bone and accessory vessel <P133>, looking north-west

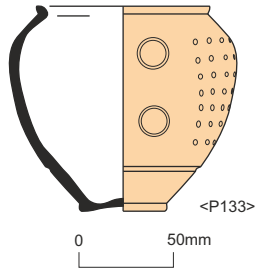


Fig 4.47 Cremation burial M1A[4219]

FEATURES OUTSIDE THE CEMETERY

In Phase 3 the principal north-east to south-west boundary was recut, but the adjoining north-west boundary shifted south-west towards the cemetery (Fig 4.35). The older Late Iron Age/Roman boundary M1A[4010] had accumulated silt and in-wash, and it was replaced by a parallel ditch to the south, 1.24m wide by 0.62m deep, with steeply-sloped sides and a fairly narrow flat base M1A[4065]. The basal fill comprised mid to dark grey silty sand, 0.17m thick, with occasional charcoal flecks. This was overlain by friable red-brown silty sand, 0.14m thick, with light yellow patches and charcoal flecks. The fill probably comprised natural silting and weathering in-wash, with noticeably less charcoal. The uppermost fill was friable dark grey-brown silty clay loam, 0.31m thick, with small stones, charred material and pottery (42 sherds, 414g), which is interpreted as an episode of deliberate backfilling.

In the corner of the two boundaries was a dense concentration of smaller features. Two gullies, M1A[4052] and M1A[4050] created a small corral. The ditches were relatively shallow, no more than 0.09m deep and the surrounding area was quite indistinct with dark grey-brown sandy clay forming an amorphous spread with frequent charcoal flecks and occasional burnt stones. Below this layer lay nine postholes, two square and seven circular, which were concentrated as a group at the east end of the gully M1A[4050]. The postholes were mainly within the range of 0.18-0.32m wide and 0.11-0.27m deep and as a whole exhibited steep, near vertical sides with rounded bases. They were filled by grey-orange sandy clay, stained black with charcoal and over half of them contained small fragments of burnt stone. The postholes did not form a clear arrangement but appear to represent various episodes of post constructions, perhaps to support temporary barriers such as wattle panels. The charcoal was a mixture of shrub/scrub tree taxas and it considered to be largely residual.

Outside the corral were three pits; the largest pit was slightly triangular, 1.80m by 1.50m in plan, and 0.50m deep M1A[4028]. The other two pits were smaller, less than 1.0m wide by 0.30m deep M1A[4057, 4048]. The sides were fairly gentle and each pit had a rounded base. There was no evidence for scorching, although the fills included burnt material mixed with light grey-brown silt, gravel and a moderate amount of burnt stones. Charred plant remains were largely absent and the bulk of charcoal was similar to the material in the postholes, gullies and overlying spread.

PHASE 4: ROMAN, EARLY TO MID 2ND CENTURY AD

The final phase of cemetery development seems to have been a short episode with the addition of five cremation burials clustered together in a row (Fig 4.48). The five burials contained six individuals, 14 pottery vessels and eight nails.

Burial M1A[4165] was the only interment of these that was not cut by another burial; it consisted of the cremated remains of an adult within a jar accompanied by two samian dishes. The other burials seemed to exhibit the addition of later remains to accompany the earlier cremations that belong to this phase; there was the addition of an adult female to join an unsexed adult and child, and another with an adult female inserted into the burial of an unsexed adult. In both cases the later addition was placed on the east side of its earlier counterpart, taking care to avoid disturbing the earlier remains. The quantity of accessory vessels across the group is consistent with the late 1st to 2nd centuries AD.

Among these burials were three Central Gaulish samian dishes, one of which carried the stamp of the potter Avitus, dating from AD120–150. The cemetery appears to have gone out of use after this time.

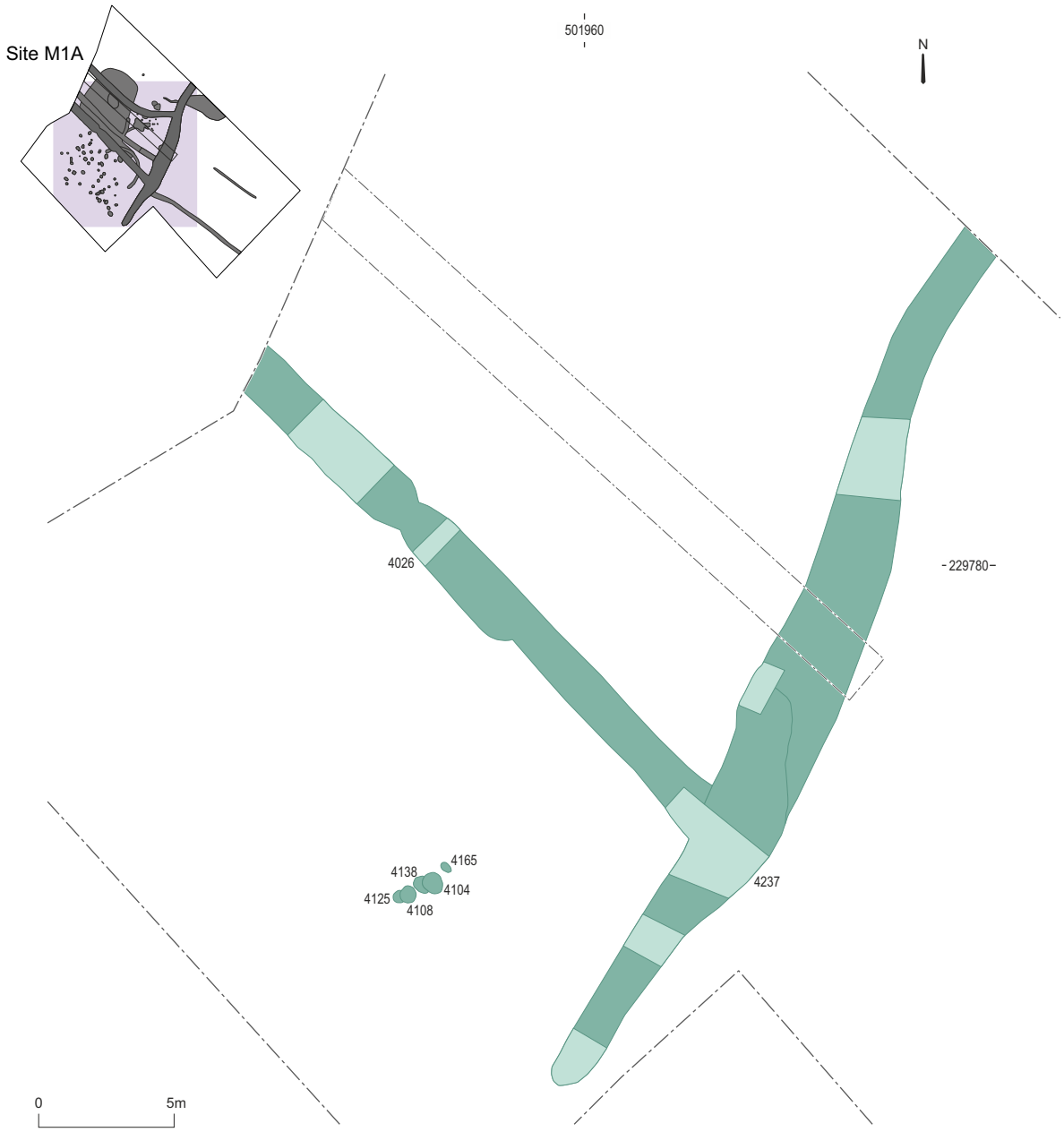


Fig 4.48 Plan of burials in cremation cemetery, early to mid 2nd-century AD, Site M1A

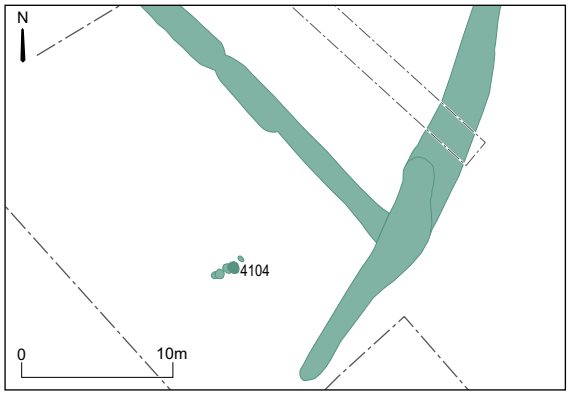
THE CREMATION BURIALS

CREMATION BURIAL M1A[4104]

Type: urned and furnished (Type 5)
Date: AD120–150
Sex: uncertain
Age: adult
Finds: cinerary urn and two accessory vessels

The burial was urned and furnished and had suffered slight truncation (Fig 4.49). This appeared to be an addition to burial M1A[4138]. The oval pit was 0.85m by 0.75m in plan, and 0.15m deep with moderate to steep sides and a flat base. The cinerary urn <P134> lay in the southern part of the pit. Brown silty clay lay at the base of the urn with the cremated bones (862g) of an adult above it. A samian dish <P135> and a flagon <P136> lay to the north and east. The grave fill was dark grey-brown sandy silty clay.

Finds catalogue
<P134> Jar, body sherds from a closed form, cinerary urn. 49 sherds, 184g. R06. Not illustrated.
<P135> Central Gaulish dish, Drag18/31, abraded central stamp AVI...V·F. Potter Avitus iv, possibly die 7a (Hartley and Dickinson 2008a, 375-9), accessory vessel. 4 sherds, 380g.
<P136> Lower part of small flagon, accessory vessel. 61 sherds, 243g. R03 (VER WH). Not illustrated.



Burial M1A[4104], with Burial M1A[4138] to the right, looking south-west

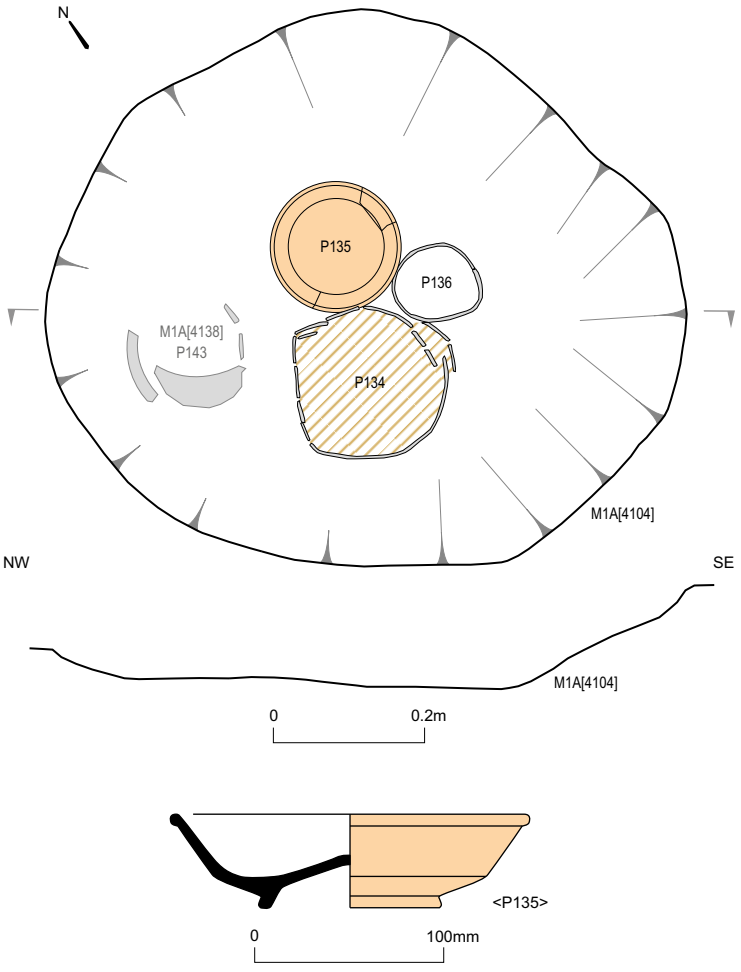


Fig 4.49 Cremation burial M1A[4104]

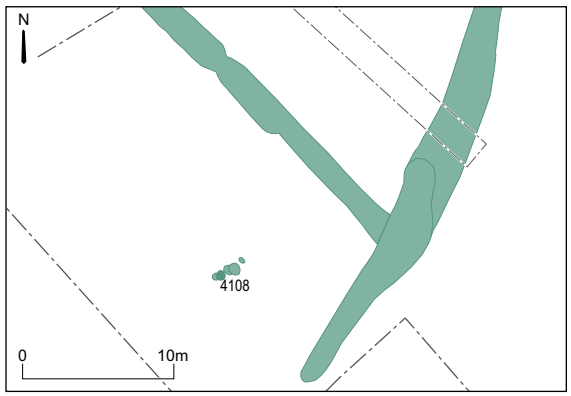
CREMATION BURIAL M1A[4108]

Type: urned, token urned and furnished (Type 6)
Date: early 2nd century AD
Sex: uncertain female
Age: adult
Finds: three nails, two cinerary urns and an accessory vessel

Possibly as an addition to burial M1A[4125], this burial was an urned, token urned and furnished burial that was slightly truncated (Fig 4.50). The pit was oval, 0.65m by 0.55m in plan, and 0.20m deep with moderate sides and a flat base. The cinerary urn <P137> lay central, containing brown silty clay, occasional flint, and the cremated bones (902g) of an adult, possibly female, along with three nails <Fe139> and charcoal. Directly to the south-east there was another urn <P138> with a token cremated deposit (2g) of an unknown individual. An accessory vessel <P139> lay directly to the west. The grave fill was mid grey-brown sandy clay.

Finds catalogue

<P137> Rolled rim jar, very fragmented remains, cinerary urn. 178 sherds, 784g. R13. Not illustrated.
<P138> Globular flask with a short narrow neck, base is very thin and cracked through firing, possible waster, cinerary urn. 2 sherds, 217g. R06.
<P139> Small everted rim beaker. 33 sherds, 147g. R07.
<Fe139> Nails, iron (x3):
(1) Small nail with square sectioned shank and small flat circular head, 25mm long, 7mm diameter head.
(2) Same as above with small fragment of human bone adhered to corrosion deposits on head, 26mm long.
(3) Incomplete, terminal of shank missing, sub-circular head with tapered square sectioned shank, 17mm long. Not illustrated.



Burial M1A[4108], urn <P137> central, looking south-west

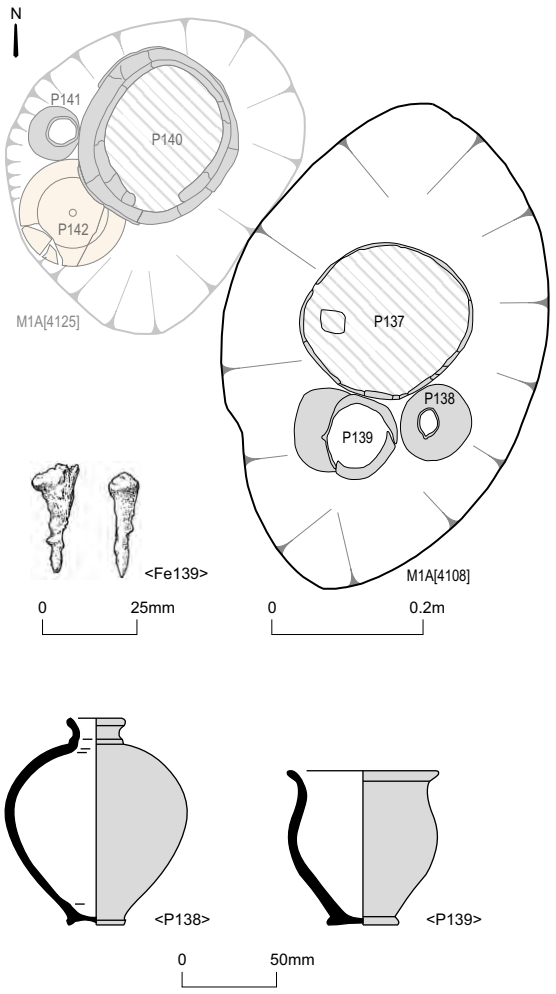


Fig 4.50 Cremation burial M1A[4108]

Cremation burial M1A[4125]

Type: urned and furnished (Type 5)
Date: AD117–138 or AD138–160
Sex: uncertain
Age: juvenile and adult
Finds: Two nails, cinerary urn and two accessory vessels

This burial was urned and furnished and in good condition; it was overlain by burial M1A[4108], which had avoided any noticeable damage to the earlier burial (Fig 4.51). The oval pit was 0.40m by 0.35m in plan, and 0.08m deep with steep sides and a flattish base. The cinerary urn <P140>, in the northern part of the pit, contained the cremated bones (1,038g) of a juvenile and an adult. The cremated bone lay in the lower 80mm of the urn with no discernible order. This cremation also contained two nails <Fe140>, two accessory vessels <P141-P142>, and was sealed by brown silty clay with occasional flint. Two accessory vessels were located on the west side of the cinerary urn. The grave fill was a dark grey-brown sandy silty clay.

Finds catalogue
<P140> Handmade everted rim jar with a rolled rim, very fragmented, cinerary urn. 107 sherds, 936g. R123.
<P141> Wheelmade, plain poppyhead beaker, accessory vessel. 18 sherds, 220g. R07.
<P142> Central Gaulish samian dish Curle 23, very abraded central rosette stamp. 5 sherds, 273g.
<Fe140> Nails, iron (x2), 28mm long.

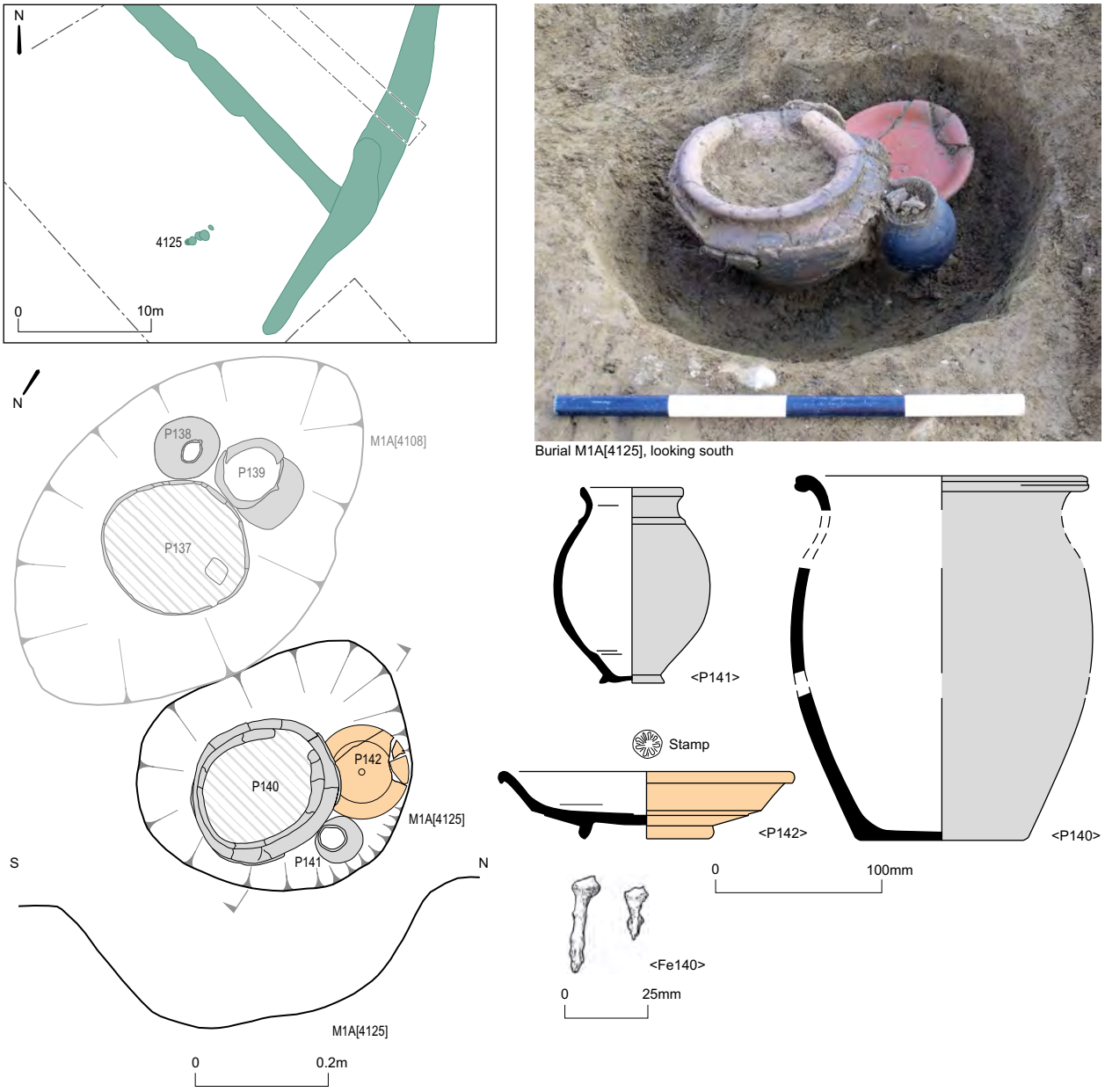


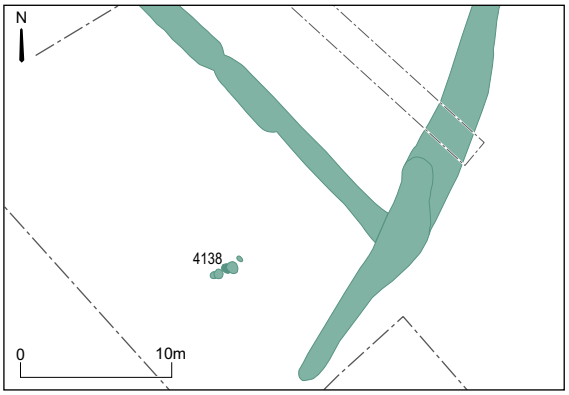
Fig 4.51 Cremation burial M1A[4125]

Cremation burial M1A[4138]

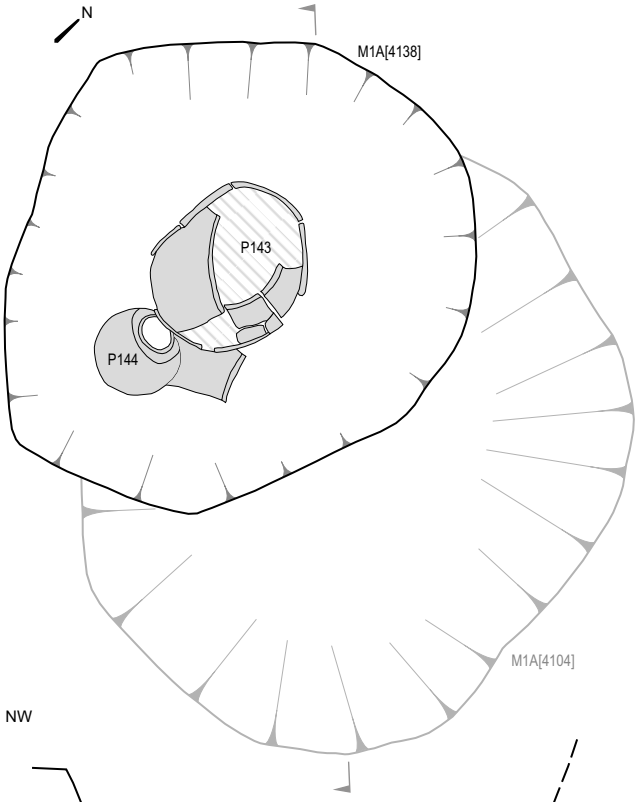
Type: urned and furnished (Type 5)
Date: possibly AD98–117
Sex: uncertain female
Age: adult
Finds: cinerary urn and an accessory vessel

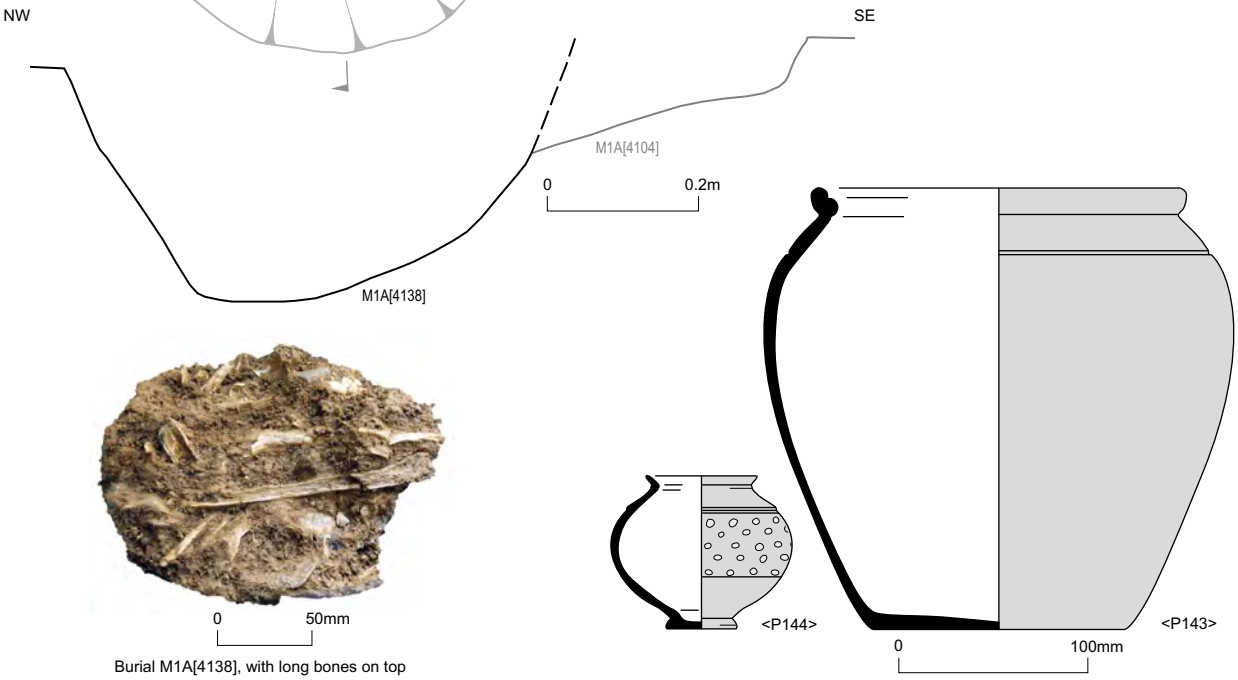
This burial was overlain by burial M1A[4104], but there was no disturbance of the earlier burial (Fig 4.52). The oval pit was 0.70m by 0.60m in plan, and 0.30m deep with steep sides with a slightly rounded base. The cinerary urn <P143> was placed centrally, and within the jar the bottom 80mm consisted of oak charcoal in brown silty clay matrix with a further 90mm of cremated remains (skull and long bones) above it and to the sides of the urn. The cremated bones (967g) were of an adult, possibly female mixed with brown-yellow silty clay. The accessory vessel <P144> lay south of the urn. The grave fill was a red-brown sandy silty clay that produced oak and alder/hazel charcoal.

Finds catalogue
<P143> Handmade lid-seated jar, cinerary urn. 109 sherds, 2,175g. R07.
<P144> Complete globular beaker with short everted rim; decorated with rows of barbotine dots, accessory vessel. 1 sherd, 144g. R06c.



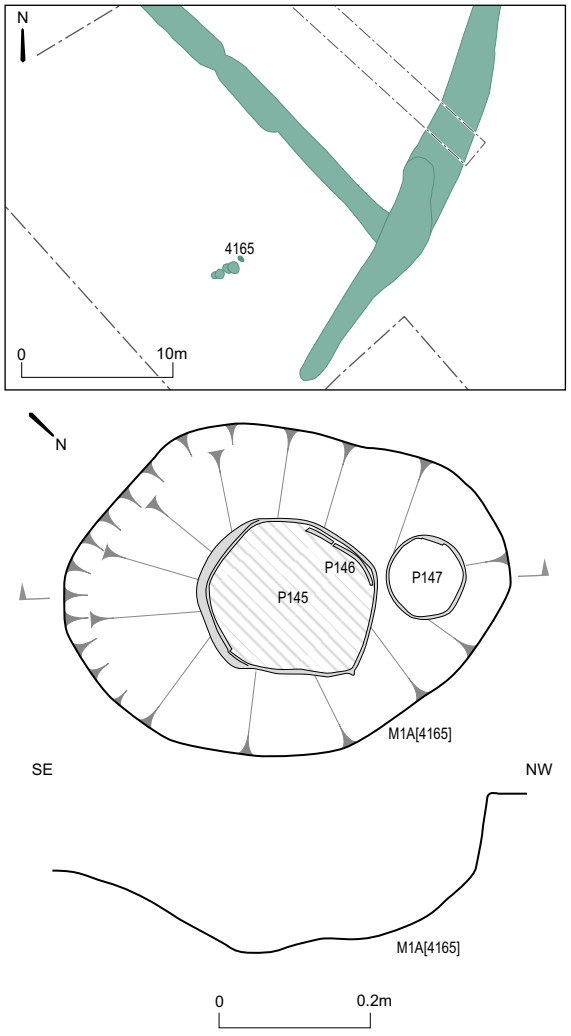

Burial M1A[4138], urn <P143> centre, looking south-west





Burial M1A[4138], with long bones on top

Fig 4.52 Cremation burial M1A[4138]



Burial M1A[4165], urn <P145> centre, looking south-west

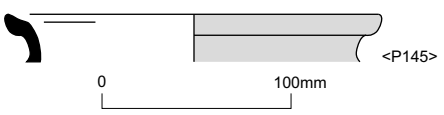


Fig 4.53 Cremation burial M1A[4165]

Cremation burial M1A[4165]

Type: urned and furnished (Type 5)
Date: early to mid 2nd century
Sex: uncertain
Age: adult
Finds: cinerary urn and two accessory vessels

This urned and furnished burial was truncated with moderate distrubance (Fig 4.53). The oval pit was 0.60m by 0.45m in plan, and 0.15m deep with irregular asymmetrical sides and an uneven base. The cinerary urn <P145> was placed centrally, and within the jar were the cremated bones (424g) of an adult. In the urn was a samian dish which may have functioned as a lid <P146>. The grave fill was a red-brown sandy silty clay which contained two other samian sherds <P148>.

Finds catalogue

<P145> Bevelled rim jar, very fragmented, cinerary urn. 127 sherds, 735g. R13.

<P146> Central Gaulish samian dish, Drag18/31, poor slip and fragment of a centrally placed very flaked stamp: J..M..[partially visible, accessory vessel. 13 sherds, 134g. Not illustrated.

<P148> Central Gaulish dish Drag18/31 or Drag31, rim sherds. 2 sherds, 31g.

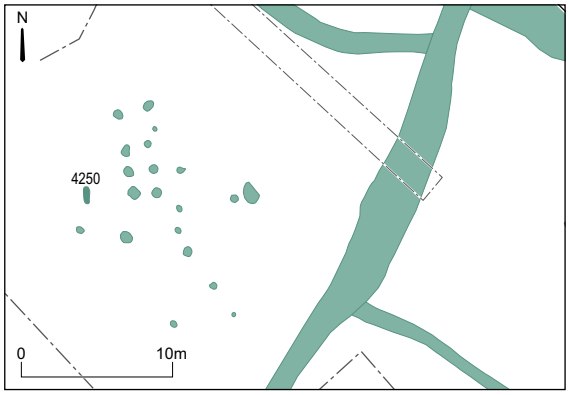
Further redefinition of nearby boundaries

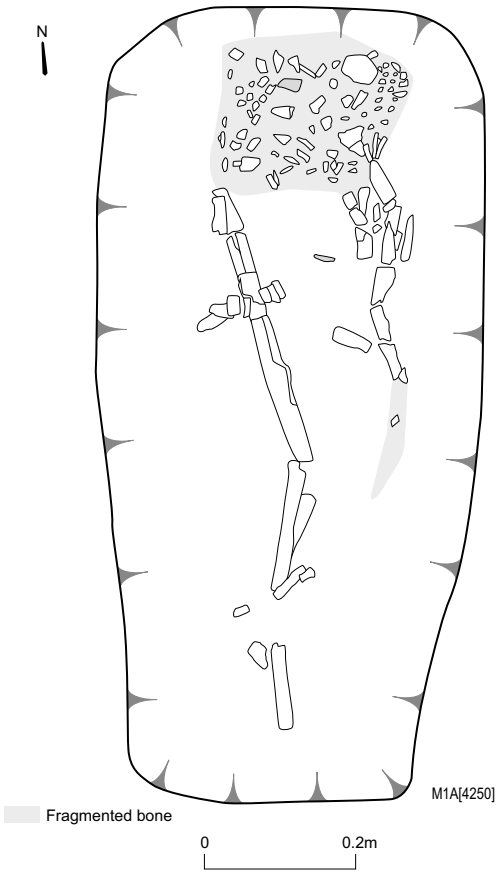
During this phase, the nearby north-west by south-east boundary ditch shifted further to the south-east as M1A[4026], clipping the edge of the cemetery (Fig 4.48). This may be an indication of increased pressure for land. The ditch was subsequently recut but without further encroachment. The ditch was 1.30m wide by 0.53m deep with fairly steep sloping sides and a broad and slightly rounded base. The fill comprised firm light grey-brown silty clay with gravel, burnt stone and charcoal flecks interpreted as a mixture of silting and in-wash with periodic dumps of waste, including two sherds (7g) of residual late Iron Age pottery, animal bone and ironworking slag. The recut was slightly narrower and with steeper sides, 0.88m wide by 0.60m deep. The fill contained dumps of material including a high volume of pottery, 73 sherds (564g), dating from the middle of the 2nd century AD, indicating that the ditch went out of use around this time.

The southern portion of the principal boundary M1A[4237] was also partially cleaned out and recut at this time. It was 1.0m wide by 0.43m deep and had steeply-angled sloping sides and a narrow rounded bas, with some signs of vegetative disturbance. The fill comprised friable mid grey-brown sandy clay mottled with iron salts and occasional chalky flecks.

An undated inhumation burial

The cemetery contained a single inhumation burial, located to the north-west (Figs 4.3, 4.14 and 4.54).






Burial M1A[4250], looking north

Fig 4.54 Inhumation burial M1A[4250]

Inhumation burial M1A[4250]

Type: inhumation
Date: uncertain
Sex: uncertain
Age: adult
Finds: none

The inhumation burial was heavily truncated but seems to have been cut into the ground at a higher level than most of the cremation burials (Fig 4.54). The grave was sub-rectangular in shape, 1.05m by 0.50m in plan, by 0.08m deep with near vertical sides and a flat base. It was aligned with head at the north and the feet to the south. The grave cut through a first phase late Iron Age cremation burial, M1A[4188], at its south end. Only a single femur survived, but parts of the leg bones were visible as a shadow soil mark between the pelvis and lower calf. The poor preservation prevented an assessment of stature or sex, however, the size of the bone indicated an adult. There was no evidence of pathology. The condition of the bone was good, with 75% of the cortical surface remaining. A number of marks noted occurred on fragments were caused by rodent gnawing. The grave fill was a firm mid brown clay with occasional small stones and charcoal flecks. Insufficient collagen survived within the bone to enable a radiocarbon date to be determined.

The inhumations that accompanied cremated remains at the nearby site of Court Drive, Dunstable (Edwards 2010, 243), are thought to have been of the 1st century AD on the basis of the pottery that accompanied one of the graves, and it is possible a similar date may apply to this burial.

THE PYRE SITE AND POSSIBLE CAIRN AT SITE M1B

Further funerary remains were found on the south-facing slope, on the opposite side of the valley (Site M1B), to the east of the M1 motorway. The initial trial trench evaluation found cobbles and burning, but nothing to associate these with funerary activity (Walker 2010, 13, figs 10-11).

At Site M1B detailed excavation revealed three pits, which contained human remains, of which up to two may have been cremations and one was probably a *bustum*. These were associated with an overlying spread of cobbles, which are thought to have been a plough flattened cairn. The scheme only required a narrow strip of land to be utilised at the top of the motorway cutting, so it is likely that further undisturbed burial remains may lie to the east.

The remains of a possible stone cairn were evident, which lay scattered above a *bustum*. The possible cairn was flattened and largely destroyed by later ploughing, however, sufficient stone remained to preserve the charred evidence from being ploughed away and this provided good information on the nature of the funerary activity.

Above the surface of the natural clay was a layer of relict soil, 0.12-0.24m thick, comprising firm mottled mid grey-orange silty clay stained with charcoal. Patches of charcoal with flecks of burnt bone appeared smeared and compressed into its surface. The layer was cut by cremation burial M1B[5019] (Fig 4.55). Oak sapwood and roundwood was radiocarbon dated to the late Iron Age (90–80/50BC–AD60 cal, 95% confidence, 2010±30BP, Beta 343280), which indicates that it is contemporary with the earliest phase of the cremation cemetery across the valley at Site M1A.

It appears likely that the *bustum* was used to introduce oxygen into the base of the pyre to get the fire burning to maximum efficiency and at its highest temperature.

Burial M1B[5019]

Fig 4.55 Plan of remains associated with a pyre site and possible cairn, Site M1B

Examples of *busta* from Court Drive, Dunstable, were larger and more regular in plan, but less plough-truncated (Edwards 2010, 241). The western end of the pit was probably the opening of the flue and the slightly deeper east end sat beneath the middle of the pyre, thus collecting small pieces of burnt bone within the aperture. Small pieces of burnt clay in the deposit may indicate that wattle and daub was included in the construction of this pyre or perhaps the flue as a covering or as a platform, although not in substantial quantities.

Above the *bustum* and overlying the surrounding soil layer was a concentration of large stones. The stones were of three main types: the most abundant were large red-brown sandstone glauconite <220mm in size; yellow-brown pebble flint <180mm in size were less abundant; and chalky limestone fragments <160mm in size were least abundant. The stones were all naturally rounded and water worn, many appeared to have been gathered from a river, or from the glacial till. A few of the stones were scorched, but these were in the minority. The stones may have been used to raise a cairn over the pyre site. The cairn was ploughed flat in medieval times.

CREMATION BURIAL M1B[5019]

Type: unurned probable *bustum* (Type 1)
Date: 90–80/50BC–AD60 cal (95% Confidence, 2010±30BP, Beta 343280)
Sex: uncertain female
Age: adult
Finds: none

This probable *bustum* was moderately truncated by medieval ploughing (Fig 4.55). The pit was narrow and elongated, 1.2m by 0.35m in plan, and 0.23m deep with steep to near vertical sides tapered at each end, and a slightly concave base. The main fill was dark black charcoal and silty clay loam with specks of burnt bone largely concentrated at the east end within the deepest part of the pit. The cremated human bone (385g) was probably from an adult female. The quantity of charcoal was substantial, with over 1,000 fragments (1,126g) including oak sapwood and roundwood that was radiocarbon dated and found to be contemporary with the cremation cemetery at Site M1A.

CREMATION RELATED DEPOSIT M1B[1111]

Type: cremation related deposit (Type 12)
Date: uncertain
Sex: uncertain
Age: uncertain
Finds: none

In evaluation trench 11 there was a pit, 0.42m wide by 0.16m deep, near to the *bustum* and amongst the overlying stones (Walker 2010, 13, fig 10). The fill was dark grey-black silty clay containing very frequent charcoal with a piece of burnt timber lying within it. There were no visible tool marks or other evidence of working noted on the timber and it appeared to have been burnt *in situ* since the natural clay at the base of the pit was scorched. Cremated bone (34g) was recovered from the fill but could not be aged or sexed.

CREMATION RELATED DEPOSIT M1B[1113]

Type: cremation related deposit (Type 12)
Date: uncertain
Sex: uncertain
Age: uncertain
Finds: two fragments of animal bone, copper-alloy fragment

Around 8m to the south of the *bustum*, and beyond the extent of the possible cairn, there was a small undated gully, M1B [1113] in evaluation trench 11 (*ibid*). This was aligned north-south, 0.13m wide by 0.05m deep, with a rounded profile. The fill was friable black silty clay, merging towards dark grey-brown clay, and is likely to be redeposited. A heavily corroded unidentifiable copper-alloy object lay within a patch of charcoal but the cremated bone (240.5g) could not be aged or sexed. A pig mandibular molar and the distal end of a sheep/goat humerus were also recovered. The relationship between this feature and the other funerary remains to the north could not be established.

ROMAN BOUNDARIES AT TWB3, SITE M1C AND SITE M1B

ROMAN BOUNDARIES, PITS AND GULLIES AT TWB3

On the south-facing slope to the west of the M1 motorway, a series of boundary ditches, pits and curvilinear gullies on Site M1C were identified during a targeted watching brief, where a single Roman ditch had been found during trial trench evaluation (Fig 4.56) (Walker 2010, 13, fig 9). As only a small area was required for the scheme, the remains could only be partially sampled by excavation, but it is possible that the concentration of late Iron Age/Roman features may be part of settlement extending across the slope of the valley.

At the southern end of the site ditches and pits that produced an assemblage of pottery, animal bone and other finds from the 1st century AD onwards (Timby 2012, table A2.2). The material of the 1st century AD was limited to the principal ditches, whilst the majority of finds of mid to late 2nd-century AD date came from smaller ancillary features between major boundaries and from upper ditch fills. A single sherd of pottery of the 3rd century AD was recovered from the subsoil and one later ditch produced coinage dating to the 4th century AD. Although no domestic structures were evident, the forms and types of pottery indicated an assemblage comprising mainly jars and bowls that probably originated from a small settlement outside the excavated area (Timby 2012). A possible building, provisionally identified on a historic aerial photographic image, lies to the west (RAF/58/2758, April 1959, frame 34).

The ditches probably bounded larger enclosures that stretched across the slope and may have contained within them ancillary activities. The interior areas between boundaries contained few features. The animal bone assemblage was largely dominated by cattle bones, although sheep/goat, pig and horse bones were also present in smaller quantities. Charred plant remains were limited in quantity; there was little evidence to support crop processing and the few individual grains that were present appeared to be from scattered detritus in the vicinity. A single pit contained sufficient charred cereal grains and burnt animal bone to suggest that it may have originated as hearth waste.

PHASE 3: DITCHES, LATE 1ST CENTURY AD

A single curving ditch was amongst the earliest features present, M1C[7173]. It was heavily truncated by medieval and post-medieval activity. The ditch was 0.33m wide by 0.17m deep, and formed the east side of an arc that continued beyond the excavated area. The fill comprised firm orange-brown silty clay, but was otherwise devoid of finds and its stratigraphic relationships indicate a date in the 1st century AD or earlier.

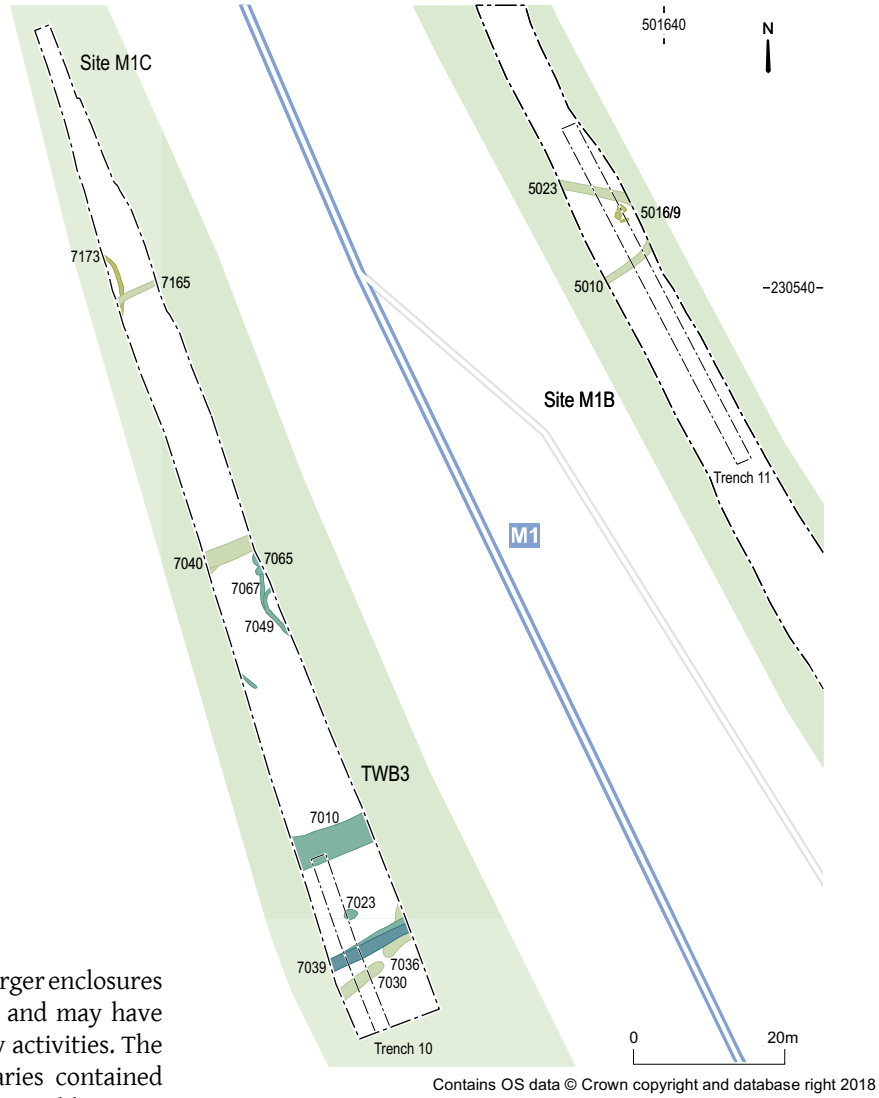


Fig 4.56 Boundary ditches across the slope of the valley, TWB3, Sites M1C and M1B

To the south, the area was crossed by three main boundary ditches, set out at widely-spaced intervals aligned north-east to south-west (Fig 4.56). Unfortunately, no aerial photographic evidence or geophysical survey data exists to corroborate the extent and layout of the boundaries. There were no additional features indicative of activity in the area defined by these boundaries in the late 1st century AD, although the ditches themselves produced a moderate assemblage of finds. The northernmost ditch, M1C[7165], lay parallel with the more substantial ditch, M1C[7040], 35m to the south. A further 57m to the south another parallel boundary was formed of abutting ditches M1C[7030/7036]. This southernmost boundary was aligned slightly more to the north-east than the other contemporary boundaries. A short gap was defined between two adjacent ditch terminals, M1C[7030] and [7036], less than 1.0m wide, too narrow to represent an entry, but sufficiently large to suggest that the boundaries were not necessarily for drainage.

In close proximity to the possible stone cairn, M1B[5016], and enclosing the concentration of stone within the curvature of their arcs, were two ditches M1B[5023] and M1B[5010] (Figs 4.55-4.56). The full extent of the ditches lay outside of the excavation area. Groundwater conditions, truncation at the top of the motorway embankment and the removal of hedgerows made further definition impossible. The general alignment of ditches found on either side of the motorway suggests they may have been associated. The ditch to the north of the possible stone cairn was up to 2.0m wide by 0.80m deep. The fill comprised a single compact mottled light to mid orange-yellow and brown silty clay with grey and russet flecks, indicative of the formation of iron salts through fluctuating water content. The fill had accumulated gradually through silting, during which it incorporated a small sherd of late 1st-century AD pottery (Timby 2012). The lack of charcoal in the fill suggests it post-dated the pyre event.

PHASE 4: SETTLEMENT FEATURES, EARLY TO MID 2ND CENTURY AD

The mid 2nd century AD probably brought about changes and a modification to the layout of the boundaries. The principal boundary changes affected the lower, southern end of the slope where a single unbroken ditch M1C[7039] replaced the earlier broken alignment (Fig 4.56). Fifteen metres to the north of this boundary a major ditch was created, M1C[7010], that was 4.90m wide by 0.51m deep. It had shallow, gradually sloping sides and broad flat slightly uneven base. The lower fill was loose patchy mid brown and yellow silty sand with pebbles and charcoal flecks derived from basal silting and in-wash. Above this was loose dark grey-brown silty sand, pebbles and charcoal flecks, derived from dumped material, and containing a few sherds of pottery within the backfill.

PITS AND GULLIES

The western edges of several narrow curving gullies, grouped as M1C[7049], were partially exposed within the excavation area (Fig 4.56). The gullies were found in conjunction with two large pits M1C[7065] and [7067], and another pit M1C[7023] lay to the south. Any other features in this area were lost to the 1958-9 motorway cutting, along with any domestic evidence.

The gullies themselves were in the range of 0.35-0.50m wide and up to 0.27m deep. The profiles were inconsistent with a variety of shapes that included V-shaped cuts, steep sides with rounded or pointed bases, and broad gently curving sides with flat bases. These gullies were probably temporary features and the fills tended to accumulate whatever detritus happened to be within their vicinity, which in this case resulted in predominantly grey-brown sandy and silt clay in-wash, stained and flecked with charred material, and with casual stray losses or dumps of domestic waste.

The earlier of the two pits was an irregular sub-circular depression, 2.30m by over 1.0m in plan, and 0.24m deep. The sides were rough and uneven, and the base was broad and flat. The fill was largely firm orange-brown sandy silt and clay mixed with domestic rubbish that was overlain by a spread of firm mid brown sandy clay. Another pit, sub-rectangular with near vertical sides and a flat base was cut through both deposits. It was over 1.2m by 0.62m in plan, and 0.42m deep and it contained a single dump of firm grey-brown sandy loam with pebbles.

The pits produced 17 sherds of pottery and a sizable quantity of animal bone consisting of 86 bone elements, alongside fired clay, but relatively little charcoal or plant macrofossils. The cattle bone, which was predominant, provided evidence for both butchery and canid gnawing. One of the gullies also produced a group of six hobnails, which, together with the 88 sherds of pottery of the mid to late 2nd century AD suggests that the features were associated with probable domestic settlement.

Another steep-sided sub-circular pit, M1C[7023], lay to the south between the two large boundary ditches, M1C [7010] and M1C [7039]. The pit was 1.68m by 1.20m in plan and 0.65m deep which contained within which a sequence of sandy and clayey sand fills. The fills were very clearly defined and of roughly equal thickness with charcoal flecks but no finds. A smaller rectangular pit, 1.55m by 0.88m in plan and 0.65m deep, cut these fills and lay centrally within the original pit that had vertical sides and a flat base. The pit recut was filled with a sequence of sandy and clayey sand. The frequency and similarity of thin sandy fills, 60-100mm thick, and their distinct difference to the fills in contemporary ditches, indicated that its reinstatement was quick. The material from the

middle fill produced the only meaningful assemblage of Roman charred cereal grain from TWB3 in conjunction with a fragment from a rotary quern, fired clay, pottery, bone and other charred remains representing hearth waste. Pottery and bone also occurred in moderate quantities from the fills above and below this middle fill with several cross-fits noted.

Phase 5: A late Roman boundary ditch

The southernmost boundary ditch, M1C[7039], seems to have been the longest lived amongst all of the Roman boundaries. It was 1.84m wide by 0.78m deep, with a steep U-shaped cut eroded at the upper edge. The fill was mid grey-brown silty sand from in-wash overlain by dark brown-grey sandy clay. Both fills each produced a single coin, <Cu128> and <Cu129>, both dated to the first half of the 4th century. It is likely the previous ditch silted up by the end of the 2nd century AD and was reinstated in the late 3rd or early 4th centuries.

Specialist studies

Querns
by Andy Chapman

All of the quern fragments came from Roman pits in TWB3. There is a small block of fine-grained sandstone, 168mm wide by up to 50mm thick, with a worn slightly concave surface. The stone is 115mm long and is the end of a much larger piece; its incompleteness leaves its original function unclear, but it was probably utilised as a grinding/polishing stone.

A fragment from the circumference of an upper stone from a rotary quern is in sandstone, 56-60mm thick, with a circumference of *c.*700mm. The grinding surface is concave, and there are dimpled tool marks around the circumference of the stone. The size is at the upper limit for hand querns. There is also a small irregular fragment of Millstone Grit, 50mm thick.

Tile
by Pat Chapman

The Roman building materials were sparse; there were 154 sherds (1,781g) of roof tile from TWB3 only. Approximately 80% of sherds by weight were recovered from ditches and pits at the lower end of the slope, suggesting a building nearby. The tile fragments occurred in features from all of the Roman periods. One small sherd from a box flue tile was residual in the medieval layer at Site M1C at the top of the slope (see Chapter 8). It is made from a hard sandy orange fabric; the combing design is of a concentric square made with widely spaced narrow incisions. There is also one small possible floor tile from a Roman boundary ditch, made from a slightly soft fine orange pink fabric.

Fired clay
by Pat Chapman

There are 154 fragments (*c.*1.78kg) of fired clay from Roman contexts. Amongst these, 101 fragments are daub with the same distribution as that of the roof tile. The daub is made from fine silty sand orange-brown, red-brown or white and pink, with flat grey surfaces. Whilst these could be structural fragments, they have no wattle impressions or other marks.

Roman pottery
by Jane Timby

The pottery assemblage from Site M1A comprises 107 vessels as well as stray finds in 17 fabric types (Table 4.5). Some 45 cremation burials were uncovered (excluding two that were without cremated bone). All of the burials were accompanied by pottery vessels either as cinerary urns or as accessory vessels. The condition of many of the pots was poor, with extremely fragmented sherds and in many cases only the lower parts of the vessel survived. Thus the most diagnostic part of the vessel, the rim, which often permits closer dating, was generally missing. Whilst a significant number of the vessels were too fragmented to allow reconstruction for drawing there are a small number of less damaged pots included within the burial catalogue. There are also seven complete or almost complete surviving vessels.

Chronologically the cemetery appears to span the later Iron Age through into the early/mid 2nd century AD. The vessels are a mixture of handmade, wheel turned and wheelmade vessels, predominantly in local fabrics. Grog tempered wares (F09, F17); grey sandy wares (R06) and black sandy wares with a red core (R07) dominate the assemblage and effectively account for 63.5% of the recorded vessels. There are a maximum of 128 vessels from the burial contexts, although these are in various states of completeness so it is sometimes unclear if a few of the sherds are accidental incorporations into the grave fills. Alternatively, the inclusion of additional broken sherds could be a deliberate act as part of the burial ceremony and are noted in the catalogue. If these were residual, then the maximum number of vessels reduces to 107, accounting those only used as cinerary urns or as accessory vessels.

The pottery has been divided by grave into 54 cinerary urns, 53 accessory vessels and the remaining stray sherds (Table 4.6).

Of the 47 burials with pottery, 14 produced single vessels, which were all jars used as cinerary urns and in one burial a decorated beaker was present as an accessory vessel. Ten burials had two vessels, of which nine comprised the burial urn and one accessory vessel

Table 4.5: Quantification of later Iron Age to early Roman pottery fabrics

Fabric code	Description	SITE M1A (cemetery)			SITE M1A (other features)			Other Roman sites		
		No. of vessels	Wt (g)	EVE	No. of sherds	Wt (g)	EVE	No. of sherds	Wt (g)	EVE
F01	flint-tempered	-	-	-	4	19	-	-	-	-
F04		-	-	-	3	7	-	-	-	-
F05	grog and shell	-	-	-	-	-	-	2	10	-
F06	grog-tempered	-	-	-	2	3	1	89	592	27
F09	grog and sand	10	5067	193	-	-	-	51	267	27
F11	sandy ware	1	407	6	-	-	-	11	97	-
F17	grog	25	9319	546	9	266	8	156	2377	48
F22	grog and organic	1	1328	13	3	14	5	-	-	-
F29	coarse sand	5	1797	52	12	283	33	54	510	21
F30	sand and calcareous inclusions	1	1506	3	-	-	-	7	390	62
F35	micaceous, grey, fine sandy matrix	1	226	35	-	-	-	-	-	-
R01A	Central Gaulish samian (LEZ SA)	3	887	234	1	18	-	3	40	21
R01B	South Gaulish samian (LGF SA)	7	1052	334	-	-	-	1	0.5	-
R03A	Verulamium-typewhite ware (VER WH)	9	4039	193	-	-	-	2	36	-
R03C	fine white ware	-	-	-	-	-	-	5	18.5	3
R03	miscellaneous white wares	-	-	-	-	-	-	12	91	26
R03var	Verulamium oxidised ware (VER OX)	2	584	-	-	-	-	-	-	-
R05	orange sandy ware with iron pellets	6	1701	224	-	-	-	4	145	-
R05A	orange sandy ware	-	-	-	-	-	-	33	125	16
R05B	fine orange sandy ware	-	-	-	-	-	-	15	23	19
R05var	orange sandy ware with occasional organic inclusions	1	449	15	-	-	-	-	-	-
R05var	white-slipped oxidised	-	-	-	-	-	-	3	16	-
R06	grey ware	18	3584	314	-	-	-	83	976	70
R06A	Nene Valley grey ware	-	-	-	-	-	-	3	13	-
R06C	fine grey ware	3	193	100	-	-	-	21	30	13
R06H	white-slipped grey ware	-	-	-	-	-	-	2	11	-
R07	sandy black ware	29	14911	964	154	1045	152	98	563	46
R08	micaceous black ware	-	-	-	1	56	-	-	-	-
R11E	Oxfordshire white ware (OXF WH)	-	-	-	-	-	-	1	74	-
R13	shelly ware	9	5158	200	6	32	-	143	1841	153
R32A	British lead glazed ware	-	-	-	1	13	-	-	-	-
R38	miscellaneous colour-coated ware	-	-	-	-	-	-	1	5	-
Totals	-	**131**	**52208**	**3426**	**196**	**1756**	**199**	**800**	**8251**	**552**

and there was one burial with two urns. A further nine burials had two accessory vessels and there were six with three accessory vessels. Two burials were unurned, and there was one burial with two urns and at least three accessory vessels with various stray sherds.

Six of the urns were lid-seated vessels and others were necked suggesting the possibility of the use of organic or stone lids or covers. At least three vessels used in the graves could be regarded as seconds with very thin bases which had cracked on firing, M1A[4088, 4108 and 4171] (<P100>, <P138> & <P39> respectively). Some vessels are sooted, perhaps suggesting they had had a role in the domestic sphere before being selected for burial. One platter in M1A[4073], <P55>, has a very burnt base.

Table 4.6: Quantification of vessels present from each burial

Cremation burials	Urns	Accessory vessels	Vessels (uncertain)	Stray sherds	Subtotals
M1A[4067]	-	3	-	-	3
M1A[4069]	3	-	-	1	4
M1A[4073]	1	2	-	-	3
M1A[4088]	2	1	-	-	3
M1A[4090]	1	-	-	-	1
M1A[4092]	2	3	-	2	7
M1A[4094]	1	1	-	-	2
M1A[4099]	1	1	-	1	3
M1A[4104]	1	2	-	-	3
M1A[4106]	1	2	-	1	4
M1A[4108]	2	1	-	-	3
M1A[4116]	1	2	-	-	3
M1A[4120]	1	-	-	-	1
M1A[4122]	1	-	-	-	1
M1A[4125]	1	2	-	-	3
M1A[4129]	1	3	-	-	4
M1A[4132]	1	1	-	-	2
M1A[4134]	1	-	-	2	3
M1A[4136]	1	2	-	-	3
M1A[4138]	1	1	-	-	2
M1A[4140]	1	-	-	-	1
M1A[4142]	-	-	1	-	1
M1A[4144]	3	-	-	-	3
M1A[4146]	3	1	-	2	6
M1A[4151]	2	-	-	-	2
M1A[4153]	1	1	-	-	2
M1A[4155]	1	1	-	-	2
M1A[4158]	-	-	3	1	4
M1A[4160]	1	1	-	-	2
M1A[4165]	1	2	-	2	5
M1A[4171]	1	-	-	-	1
M1A[4174]	2	1	-	1	4
M1A[4178]	1	3	-	-	4
M1A[4180]	1	1	-	-	2
M1A[4188]	1	-	-	-	1
M1A[4190]	1	3	-	-	4
M1A[4193]	1	2	-	-	3
M1A[4195]	1	3	-	-	4
M1A[4199]	1	-	-	-	1
M1A[4208]	1	-	-	-	1
M1A[4210]	1	-	-	-	1
M1A[4214]	1	3	-	2	6
M1A[4219]	-	1	-	-	1
M1A[4221]	1	2	-	1	4
M1A[4224]	1	1	-	-	2
M1A[4234]	1	-	-	-	1
M1A[4247]	1	-	-	1	2
Totals	**54**	**53**	**4**	**17**	**128**

Table 4.7: Summary of vessel forms from each burial by type and date

Cremation burials	Urns	Accessory vessels, including uncertain types	Date
M1A[4067]	-	jar, ?jar, platter	late Iron Age
M1A[4069]	3 jars	-	early Roman
M1A[4073]	jar	platter, collared rim flagon	pre-Flavian
M1A[4088]	jar, beaker	beaker	1st/2nd century
M1A[4090]	jar	-	early Roman
M1A[4092]	2 jars	SG dish, ring-neck flagon, beaker	1st/2nd century
M1A[4094]	jar	beaker	Flavian-Trajanic
M1A[4099]	jar	SG dish	Flavian
M1A[4104]	jar	flagon, CG dish	Trajanic
M1A[4106]	jar, flagon	dish	1st/2nd century
M1A[4108]	jar, flask	beaker	C2
M1A[4116]	jar	jar, jar/beaker	1st/2nd century
M1A[4120]	jar	-	late Iron Age
M1A[4122]	jar	-	1st/2nd century
M1A[4125]	jar	beaker, CG dish	Hadrianic
M1A[4129]	jar	flagon, SG dish, beaker	pre-early Flav
M1A[4132]	jar	jar	early Roman
M1A[4134]	jar	-	1st/2nd century
M1A[4136]	jar	2 beakers	pre-Flavian
M1A[4138]	jar	beaker	Flavian-Trajanic
M1A[4140]	jar	-	late Iron Age
M1A[4142]	-	?jar	late Iron Age/Roman
M1A[4144]	jar, ?jar, butt beaker	-	pre-Flavian
M1A[4146]	jar, Jar, ?jar	bowl	late Iron Age
M1A[4151]	2 jars	-	late Iron Age
M1A[4153]	jar	?jar	late Iron Age
M1A[4155]	jar/bowl	jar	late Iron Age
M1A[4158]	-	?jar, beaker, platter	pre-Flavian
M1A[4160]	jar	butt beaker	pre-Flavian
M1A[4165]	jar	beaker, CG dish	Trajanic-Hadrianic
M1A[4171]	jar	-	late Iron Age
M1A[4174]	jar, flagon	jar	pre-Flavian
M1A[4178]	jar	jar, jar/goblet, jar/bowl	late Iron Age
M1A[4180]	jar	flagon	pre-Flavian
M1A[4188]	jar		late Iron Age
M1A[4190]	jar	flagon, 2 jars	pre-Flavian
M1A[4193]	flagon	jar, SG dish	Flavian
M1A[4195]	jar	flagon, ?beaker, SG dish	Flavian-Trajanic
M1A[4199]	jar	-	pre-Flavian
M1A[4208]	jar	-	late Iron Age
M1A[4210]	jar	-	pre-Flavian
M1A[4214]	beaker	2 jars, platter	pre-Flavian
M1A[4219]	-	beaker	Flavian-Trajanic
M1A[4221]	beaker	jar, platter	pre-Flavian
M1A[4224]	jar	beaker	early Roman
M1A[4234]	jar	-	late Iron Age
M1A[4247]	jar	-	early Roman

The accessory vessels are typical of those found in many burials of this date with an emphasis on forms connected with the drinking, serving or the eating of food (Table 4.7). These include handmade platters copying imported forms; various small jars or beakers, flasks or flagons, one bowl and in seven cases, samian dishes. There are in total eight flagons all products of the *Verulamium*/London pottery industry, mainly white wares but at least two red sandy wares. In addition there is a white butt beaker from the same source.

Pottery chronology

The cemetery appears to span the pre-Roman Iron Age through to the first half of the 2nd century AD. The earliest graves date to the later Iron Age and at least ten cremation burials belong to this period of use. The graves are scattered across the northern half of the cemetery, loosely forming a ring, and perhaps respecting a central focus. Six of the burials comprise single vessels and one contained two cremations in two jars. In all these cases the vessels are handmade jars with six in grog tempered fabrics, two in sandy wares, one in a grog and sandy ware and one in a shelly ware. The vessel from M1A[4171], <P39>, has a slightly pedestalled foot. Two of the graves have single accessory vessels, in both cases another jar, with the one from M1A[4153], <P36>, having a pedestalled foot. Burial M1A[4146] produced three vessels; two jars <P28> and <P30> and a carinated bowl <P29>, and burial M1A[4178] has four possible accessory vessels; a small pedestalled jar or goblet <P41>, another jar <P42> and the fragments of a jar or bowl <P43>.

The next period of burial belongs to the period between *c.*AD40–65. Many late Iron Age forms tend to continue with little apparent change into the early post-Conquest period in rural areas so certain flexibility has to be built into the dating. At least eleven burials conform to this category and these show a scattered distribution across the cemetery area, but when viewed together with the nine pre-Flavian burials they form two distinct rows. Three graves had single cremations urns, two burials had two vessels, five burials had three vessels and one burial produced six vessels. Four graves had platters as accessory vessels; two in grog tempered fabrics and two in sandy ware; all broadly imitating the imported moulded *terra nigra* form Camulodunum type 8 (Hawkes and Hull 1947, 219) that was imported into Britain from the Augusto-Tiberian through to the Neronian period. Contemporary with this form are copies of butt beakers in local fabrics often with combing imitating the rouletting found on imported types. Locally made butt beakers were used as urns and as accessory drinking vessels.

There were nine burials which contained vessels specifically pre-Flavian in date. Three graves just contained the cinerary urns; two were accompanied by a single accessory vessel; two had two accessory vessels and two had three accessory vessels. Six of these burials had flagons, three in Verulamium region white ware.

The third period of cemetery use was Flavian or Flavio-Trajanic and comprises twelve burials that were mainly clustered in the southern part of the cemetery but formed an extension of the rows established in the pre-Flavian period. Three graves contained just the cinerary urn only and two pits contained accessory vessels without a cinerary urn. Within the group the three earliest graves appear to be M1A[4099, 4129, 4193], all with South Gaulish samian dishes (<P109>, <P121>, <P127). Burial M1A[4099] had a Drag18 dish stamped by Paulus and produced in AD70–95. Burial M1A[4129] had a Drag15/17 dish with an illegible stamp, the form dates from the pre-Flavian period and was losing popularity at this time. In addition the burial was also furnished with a *Verulamium* region flagon <P122> and black sandy ware beaker <P123>. Burial M1A[4193] contained a South Gaulish samian Drag18 dish stamped by Calvus, production date AD65–90. This burial also had a *Verulamium* region flagon <P126> and a jar <P128>. Burial M1A[4195] produced a South Gaulish Drag36 dish, which was broken in half and repaired with three lead rivets. Three graves produced single accessory vessels in addition to the urn: two produced two vessels, four burials produced three accessory vessels and one burial had four accompanying vessels. In most cases these comprised table wares for drinking or consuming food: flagons, flasks, dishes and beakers, but in the case of burial M1A[4116] there were three additional jars (<P118>).

The last use of the cemetery dates to the early/mid 2nd century AD for which five burials can be distinguished in a tight group in the southern part of the area. At least two of the graves cut others in the group: M1A[4125] is cut by M1A[4108], and M1A[4104] is cut by M1A[4138]. Three of the graves contained Central Gaulish samian dishes. Burial M1A[4104] contained a Drag18/31 dish stamped by the potter Avitus <P135>, active in the period AD120–150. Burial M1A[4125] had a Curle 23 dish with a very pitted interior and badly abraded rosette stamp suggesting a Hadrianic or even early Antonine date <P142>. Burial M1A[4165] had a Drag18/31 dish <P146> and two pieces of a second similar Drag18/31 or 31 vessel <P148>. The former was originally stamped but this has spalled away but they are either Hadrianic or early Antonine in date. Three of the burials contained a flask or flagon and three burials had a beaker: a plain poppyhead beaker from M1A[4125] <P141>; a small black sandy ware everted rim beaker from M1A[4108] <P139> and a fine grey ware beaker decorated with barbotine dots from M1A[4138] <P144>.

MODIFICATIONS TO VESSELS

Unfortunately the condition of the pottery makes it difficult to assess the degree to which some vessels may have been modified prior to burial. At least two vessels have holes drilled through the walls after firing. One samian dish was broken prior to burial and repaired with three lead rivets. Whether this was done as a deliberate act for the burial ritual or was a reused old vessel is unknown; it can be paralleled at the cemeteries at Dunstable (Wild 2010, 252) and Harlington quarry (Dickinson 2001, 29). At least three of the complete or semi-complete vessels have a small portion of rim missing. One flagon is complete apart from its handle. The absence of a lower attachment scar might suggest this too could have been a waster.

REGIONAL PARALLELS

A number of small cemeteries spanning the later pre-Roman Iron Age into the early Roman period have been investigated in the region, most notably King Harry Lane, St. Albans (*Verulamium*) (Stead and Rigby 1989) and Hinxton Rings, Cambridgeshire (Hill *et al.* 1999). Within Bedfordshire contemporary rural cemeteries are known at Salford (Dawson 2005), Dunstable (Edwards 2010), Biddenham Loop (Luke 2008), Kempston, Harlington quarry (Dawson 2001) and a single rich burial at Stotfold (BCAS 1997).

The two cemeteries excavated at Court Drive, Dunstable and at Harlington quarry show some overlap in terms of chronology and burial practice with the cremation cemetery at Site M1A. At Court Drive there were twenty cremations of which sixteen were urned. The chronological range is similar here, falling out of use in the 2nd century AD. Similarly, most of the vessels were in a local sandy ware accompanied in nine cases by accessory vessels including both South and Central Gaulish samian, all of which were stamped. Like the Site M1A burials, one samian vessel was broken and repaired. *Verulamium* region vessels were found in two burials and two local platters copying imported moulded Gallo-Belgic forms were present although in different fabrics to these examples. The dominant sandy fabric is not the same as the Site M1A group, suggesting slightly different local ceramic traditions in terms of the sandy wares in the early Roman period, but there is some overlap for the earlier grog tempered vessels and the shelly wares. The selection and range of vessel forms are directly comparable.

The Harlington quarry cemetery is smaller in size, with around thirteen cremations producing a total of 37 pottery vessels with a suggested chronology from the Flavian through to the Trajanic-Hadrianic period (Dawson 2001, 37). The range of pottery suggests a community of slightly higher status compared to the Site M1A burials, if such vessels are an indicator. At least twelve samian vessels were used as accessory vessels ranging in date from the Claudian to the Trajanic or early Hadrianic periods. In addition there were at least two Gallo-Belgic white wares; a butt beaker and a flagon, and also a stamped *terra nigra* platter, and a glazed Central Gaulish flagon. The three Gallo-Belgic vessels came from one burial. The grave with the Gallo-Belgic vessels and one with two grog and sand tempered jars could be pre-Flavian in date.

A small cremation cemetery at Salford (Dawson 2005) comprising four burials each with two vessels, appears to pre-date Site M1A, being dated to the end of the 2nd to mid 1st centuries BC (Dawson 2005, 79). However, the pottery, all of which is grog or grog and sand tempered in fabrics F09 and F06B, together with the brooches, suggests that at least two could date to the early 1st century AD.

The character of the Site M1A cemetery is further emphasised in comparison with the cemetery at King Harry Lane, St. Albans (*Verulamium*), which is broadly contemporary, but furnished with a far greater number of imported continental fine wares (Stead and Rigby 1989).

POTTERY FROM NON-FUNERARY FEATURES NEAR THE CEMETERY

A number of ditches and at least one pit were located adjacent to the cemetery and produced a moderately small assemblage of some 196 sherds (1,756g) and with an EVE of 199. Apart from a possible residual sherd of coarse calcined flint tempered ware, these features shared the same chronology.

Pottery was recovered from 13 features and the subsoil. The distribution of material was quite sparse with the largest assemblage from ditch M1A[4026] comprising 73 sherds (564g), which is 37% of the total assemblage by sherd count.

Pit M1A[4014] appears to be one of the earlier features with just four sherds; three fine flint tempered wares and one grog tempered sherd. Probably contemporary with this was ditch M1A[4010]; with just four sherds (182g) from a thickened-rim grog and organic tempered jar and a grog tempered storage jar; and just two grog tempered sherds (7g) residual in later contexts.

The principal north-east to south-west boundary ditch produced just 15 sherds of pottery in a mixture of shelly, grog tempered and sandy wares, probably suggesting a long period of maintenance with regular recutting. The southern extension produced 36 sherds (367g) from a single everted rim of a cordoned jar in black sandy ware of probable early Roman date (Fig 4.57, <P149>). Similarly multiple sherds from ditch M1A[4026] are part of a bifid

rim jar in a black surfaced, pink sandy local ware that may have been once associated with the cemetery (Fig 4.57, <P150>). Other sherds from this feature, mostly wheel-made sandy wares, suggest a 2nd-century AD date. Pottery from ditches M1A[4004] and M1A[4077] would also intimate an early Roman date in the later 1st or early 2nd centuries, although there were few sherds (Fig 4.57, <P151>). Ditch M1A[4012] produced a single glazed sherd which is probably of British manufacture and dating to the early 2nd century AD.

The incidence of material is quite low, suggesting that the focus of settlement activity lay outside the investigated area. The character of the pottery suggests a fairly modest rural settlement nearby from the late 1st century BC or early 1st century AD, which continued into the early Roman period before being abandoned.

POTTERY FROM DITCHES AND PITS ON THE OPPOSITE SIDE OF THE VALLEY

The features excavated in the targeted watching brief at TWB3 produced a slightly larger assemblage of 800 sherds (8,251g) with an EVE of 552. The material is not that well preserved with an average sherd weight of 10.3g, which may be a reflection of the soft nature of the fabrics.

Pottery was recovered from 19 features comprising pits, gullies and ditches, and appears to broadly span the early 1st to later 2nd/3rd centuries AD. Most of the wares are local with grog tempered sherds accounting for 37% (R05, R06, R09 and R17); 17.9% are shelly wares, 14% are pre-Roman sandy wares and the rest are Roman wares (excluding shelly wares). Imports are present but rare and are confined to a single sherd of South Gaulish samian, three sherds of Central Gaulish samian, *Verulamium* region white wares and an Oxfordshire white ware mortarium sherd. A general lack of diagnostic material or datable imports prevents close dating. Jars dominate the form repertoire with several lid-seated and rolled rim types as might be expected from a rural assemblage of this date. Storage jars are also present.

The earlier features are characterised by a moderately high proportion of grog tempered or related wares that date to the latest pre-Roman Iron Age or early pre-Flavian Roman period (Fig 4.57, <P152-153>). Ditch M1A[7040] produced 122 sherds, including the substantial part of a squat bowl (Fig 4.57, <P154>), which also appears to be broadly of pre-Flavian date. One of the larger and later assemblages (86 sherds, 1,333g) came from a single pit that included cross-fits between the fill layers, suggesting a fairly rapid fill from the same source. Amongst the vessels are flagons, a large flat topped bowl (Fig 4.57, <P155>), jars and an indented beaker that might suggest a date in the second half of the 2nd century AD or later. There are no grog tempered wares and few shelly wares. Gully group M1A[7049] collectively produced some 71 sherds (809g) although quite fragmented in condition. Again the group suggests a provisional abandonment date in the mid/late 2nd century.

Other vessels of note include part of a triple vase in a fine white ware (Fig 4.57, <P156>). The same feature produced the only sherd of Oxfordshire white ware mortaria from the site, indicating a likely 2nd-century date at the earliest.

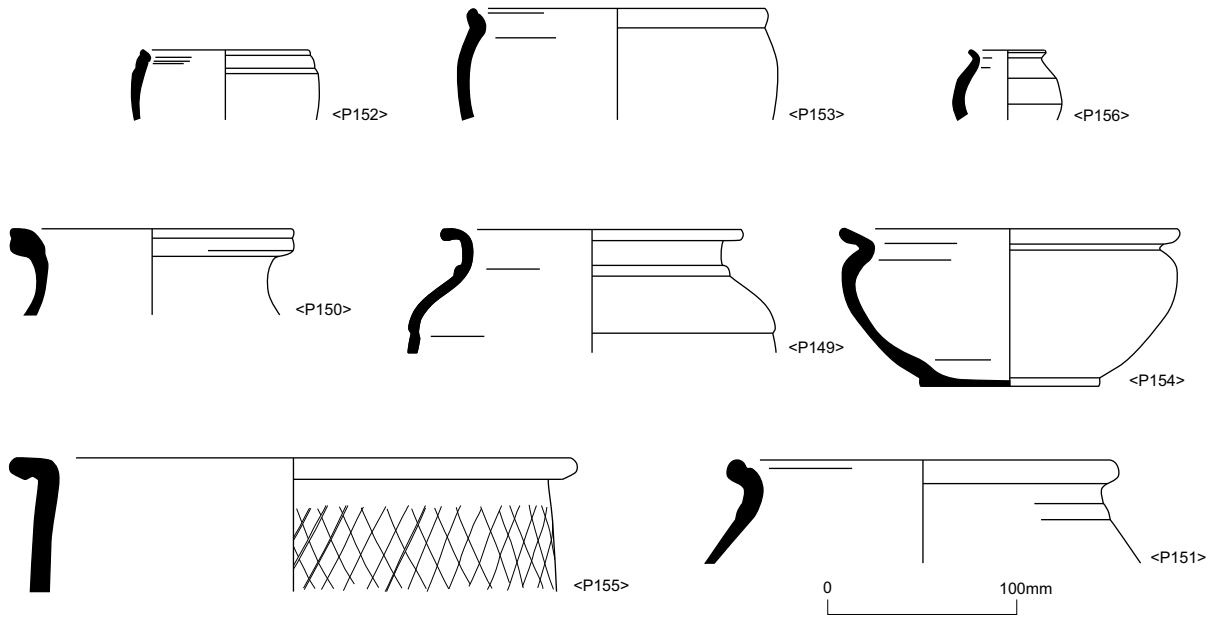


Fig 4.57 Roman pottery from non-funerary contexts, M1 Junction 12

CATALOGUE OF ILLUSTRATED POTTERY FROM NON-FUNERARY CONTEXTS (FIG 4.57)

<P149> Jar, wheelmade everted rim with shoulder bulge, R07, M1A[4243]
<P150> Jar, wheelmade, bifid rim, narrow-mouthed, R07, M1A[4025]
<P151> Lid-seated jar, handmade, wide-mouthed, F29, M1A[4003]
<P152> Bowl or cup, small hemispherical, F09, M1C[7168]
<P153> Lid-seated jar, R13, M1C[7168]
<P154> Bowl, squat, everted rim, F30, M1C[7041]
<P155> Large flat rim bowl decorated with a burnished line lattice, F29, M1C[7013]
<P156> Part of a triple vase, R03C, M1C[7050]

REGISTERED LATE IRON AGE/ROMAN FINDS

BY TORA HYLTON

There are 21 individual or group registered finds from 13 cremation burials. These have been sub-divided by period (Table 4.8). With the exception of an iron disc from a pre-Roman late Iron Age cremation (Burial [4171]), all finds, including iron nails and miscellaneous fragments, were recovered from early Roman cremation burials (Burials [4073, 4144, 4174 and 4180]).

Table 4.8: Finds associated with cremation burials by period

Phase/date	Burial	Description (SF)
Phase 1 pre-Roman late Iron Age (1st centuries BC to AD)	M1A[4120]	2 nails <Fe145>
	M1A[4171]	iron disc <Fe81>
	M1A[4176]	misc. iron strip <Fe142>
Phase 2 late Iron Age/Roman (mid-1st century AD, AD40-65)	M1A[4144]	brooch <Cu150>
	M1A[4069]	misc. copper alloy <Cu4069>
	M1A[4073]	Bronze mirror <Cu13>) brooch <Cu14> 4 nails <Fe16, 17, 137, 144> misc. iron <Fe18, 15>
	M1A[4174]	iron brooch <Fe143>
	M1A[4180]	ceramic roundel <P149>
	M1A[4190]	brooch <Cu151> annular ring <Cu??>
	M1A[4210]	nail <Fe152>
Phase 3 Roman, Flavian/Flavo-Trajanic (late 1st to early 2nd centuries AD)	M1A[4088]	6 nails <Fe146>
Phase 4 Roman, Hadrianic/Antonine (early to mid-2nd century AD)	M1A[4108]	3 nails <Fe139>
	M1A[4125]	2 nails <Fe140>

AN IRON DISC

With the exception of two nails and an undiagnostic fragment, just one object was recovered from the pre-Roman late Iron Age cremations; a perforated iron disc from cremation burial M1A[4171], thought to be that of an adult male (Fig 4.10). The disc was placed beside the accessory vessel and on top of the cremated bone, which was deposited in the base of the burial pit. There are no signs to indicate that it was burnt, suggesting that it was placed in the pit as a grave offering. The presence of mineral preserved organics on one side of the disc, suggests that it had either been placed next to or was attached to an item of wood. Identification of the disc is somewhat problematic, but similar objects have been recovered from other cremation deposits of late Iron Age date, and another was identified associated within a cremation F[225/229] at Site F on the A5–M1 link. The disc appears to taper slightly towards the outside edge, forming a circular blade and the edge of the perforation is slightly thickened, suggesting a need for reinforcement. At the centre of the perforation there is a miniscule hole, *c.*1mm in diameter, suggesting that a tubular rod up to 5mm thick may have been present, rather like that described by Lavender (1991, 206-208). On one side of the disc there are two adjoining semicircular notches, 7-8mm wide and 6mm apart, a feature noted on examples recovered from Biddenham Loop, Bedfordshire (Duncan 2008, fig 9.13, RA118), Monkston Park, Milton Keynes (Bull and Davis 2006, fig 17, 1.3). The latter example is damaged, so only a vestige of the notch survives. These discs have not been found in large numbers, less than fifteen have been recovered from domestic and cremation deposits in an area south of the Wash and the Severn such as Beckford, Worcestershire; Puddlehill, Bedfordshire and Danebury hillfort (Duncan 2008, Fitzpatrick 2013). Complete examples range in recorded diameter from 45-89mm. Although their function is unknown, previous suggestions include a razor or belt fitting (Hill *et al.* 1999, 257), a rotating knife for craftwork (Bull and Davis 2006, 18), or a measuring device or knife for specialised use (Duncan 2008). Only one comparable find is known from continental Europe, which strongly suggests that these objects were an insular innovation of the late Iron Age in southern England (Fitzpatrick 2013).

Brooches

There are four brooches, all from pre-Flavian cremation burials dating to *c.*AD40–65. Three of the brooches are copper alloy and were recovered from cremation burials M1A[4073, 4144, 4190]. There is one iron brooch from M1A[4174] (Fig 4.26). With the exception of the brooch from burial M1A[4073], which lay beside the primary and accessory vessels together with part of a mirror and a small group of nails, the other brooches were all placed on top of the calcined bone and within an cinerary urn. Although damaged or in some cases badly corroded, none of the brooches displayed signs of having been burnt, indicating that they had not been placed on the pyre.

The earliest urn with a brooch was a locally produced butt beaker. The Colchester brooch that was placed with it is plain and is a Type 2b (Fig 4.22; Mackreth 2011, plate 22, 211). The other two brooches are Nauheim derivative brooches, a simple one piece brooch forged from a rolled or folded sheet. One is made from copper alloy and is simply decorated with a shallow groove down the front of the bow (Fig 4.28) and the other is made from iron. There is also a Colchester derivative brooch decorated with a zig-zag motif and representing Type 1.a.1.b (Fig 4.17; Mackreth 2011, plate 31, 1127), which was placed outside the vessel, possibly in a small box or casket.

A polished bronze mirror

Part of a polished bronze mirror, recovered from cremation burial M1A[4073] (Fig 4.17), lay beside the cinerary urn and accessory vessels alongside a copper-alloy brooch, nails and miscellaneous iron fragments. Although incomplete, and in seven pieces, when reconstructed to form a single fragment the remains of the mirror measure 73x60mm. It is difficult to determine the original size of the mirror, but the presence of two straight edges at right angles to each other indicate that it represents a simple rectangular mirror, the most popular form in the Roman world (Lloyd-Morgan 1983, 106). The mirror measures just 1mm thick and like other excavated examples it has been manufactured from an alloy with a high percentage of tin bronze which helps to prevent it from breaking (Lloyd-Morgan 1977, 330). The upper surface of the mirror is highly polished and the underside is matt/pitted; the edges of the mirror are slightly bevelled and would presumably have been inserted into a wooden frame or box, but no evidence survived, unlike a complete example from Towcester which retained much of its original wooden frame (Lloyd-Morgan 1983).

A ceramic roundel or gaming counter

A ceramic roundel was recovered from the top of the urn in cremation burial M1A[4180]. The roundel has been made from a reused body sherd of pottery with the underside slightly concave and originating from a locally produced grog tempered ware vessel (F09 or F17). The edges of the sherd have been pared down to form a disc, 29mm in diameter, 4mm thick and weighing 3.6g (Fig 4.27). Pottery roundels are common finds on Roman sites and their function has been discussed by Crummy (1983, 93). Given that wear is evident on the surface of the disc in the form of a faint sheen that feels smooth to the touch, a gaming piece seems the obvious possibility; however, Crummy also suggests that small counters like this example may be weights for use in the kitchen.

Nails

There are 21 nails and two rod fragments, presumably representing shanks, all from cremation deposits. Where possible the nails have been classified according to Manning's typology (1985, fig 32). With the exception of one nail with a wedge-shaped head, they all appear to represent Type 1b, with flat sub-circular heads and tapered square-sectioned shanks. Eight nails are complete and range from 25-30mm in length. Those representing the smaller size range have heads measuring *c.*7mm in diameter, while the large examples have heads measuring *c.*10-11mm in diameter. With the exception of two nails from cremation burial M1A[4073] all of the others were recovered from deposits inside ceramic vessels and presumably derive from pyre debris. Four nails had fragments of calcined bone adhering to corrosion deposits, while a further two nails appear to have mineral preserved organics, probably wood. Two of the nails are distinctly well preserved; there is little if any corrosion adhering to the surface of the nails and this may be due to the preservative action that high temperatures can have on iron at over 200°C. The nails from cremations would have had numerous applications and their presence does not point specifically towards the use of caskets, furnishings, reused timbers or other pyre goods.

Coins
by Ian Meadows

Two coins date from the early to mid 4th century AD and were recovered from the fills of ditch M1C[7039].

Coin <Cu128>
A much corroded coin, 18mm diameter, the reverse type of which appears to be VOT X within a wreath, the surrounding legend and mint mark are not legible. This issue ceased to be produced at western mints, except Ticinum, prior to November AD324. The obverse face clearly bears a bust from the House of Constantine but again the detail and surrounding legend are too corroded. At one point around the circumference of this coin a short slightly thicker sprue is present indicating this coin is a contemporary cast forgery.

Coin <Cu129>
This is a partial flan of a coin of Constantius. The surviving fragment has a maximum dimension of 15mm. The reverse bears the distinctive two soldiers double standard of the GLORIA EXERCITVS issue of AD330-335, the legend and the mint mark are missing owing to erosion of the flan. The obverse bears part of the bust and the end of the legend, –VSNOBC, indicating it was Constantius.

METALWORKING DEBRIS
BY ANDY CHAPMAN

There is a small piece of tap slag (77g) from ditch M1A[4071]. Two very small pieces of undiagnostic ferrous slag (32g) are from ditch M1C[7030]. Its presence does not necessarily indicate that iron smelting was being carried out particularly nearby, as the process produces very substantial quantities of debris that can be widely dispersed.

CHARCOAL
BY DANA CHALLINOR

Most of the cremation burials from the cremation cemetery at Site M1A produced only small quantities of charcoal, but it was considered important to examine all available material to provide a larger dataset for interpreting the use of wood fuel in cremation. Thirty-eight cremation associated samples were examined; comprising material from urns, the backfill of burial pits, an unurned burial and a probable *bustum* from Site M1B.

Samples with less than 20 fragments were not examined, with the exception of those within cinerary urns and a few burial pits where the identifiable charcoal was less than desirable. Where possible, 30-50 fragments from each sample were analysed, but consideration of the condition and diversity meant that full quantification was not deemed appropriate. In general, the analysis

Table 4.9: Charcoal taxa identified from the cremation cemetery, Site M1A

Family	**Genus/species**	**Notes**
Fagaceae	*Quercus* spp. (oak)	Large tree, two native species, not distinguishable anatomically.
Betulaceae	*Alnus glutinosa* Gaertn. (alder)	Tree, sole native species. *Corylus* has a very similar anatomical structure to *Alnus* and could not often be confidently distinguished.
	Corylus avellana L. (hazel)	Shrub or small tree, sole native species.
Rosaceae	*Rosa* spp. (roses)	Shrubs, several native species.
	Prunoideae *P. spinosa* L. (blackthorn) *P. avium* L. (wild cherry) *P. padus* L. (bird cherry)	Trees or shrubs, native species. The condition was generally too poor to distinguish species, but it is likely that more than one species was represented as differing ray widths were noted. When large rays widths were confirmed, the identification has been given as *P. spinosa* type, but it is acknowledged that this species is anatomically indistinguishable from the Roman introduction *P. domestica* (plum).
	Maloideae *Pyrus cordata* Desv. (Plymouth pear) *Malus sylvestris* Mill. (crab apple) *Sorbus* spp. (rowan, service, whitebeam) *Crataegus* spp. (hawthorn)	Subfamily of various shrubs/small trees rarely distinguishable by anatomical characteristics. It is possible that more than one species was represented as some variability was recorded (such as occasional presence of spiral thickenings).
Celastraceae	*Euonymus europeaus* L. (spindle)	Shrub or small tree, native.
Aceraceae	*Acer campestre* L. (field maple)	Tree, sole native species.
Araliaceae	*Hedera helix* L. (ivy)	Woody climber, sole native species.
Oleaceae	*Fraxinus excelsior* L. (ash)	Tree, sole native species.
	Ligustrum vulgare L. (wild privet)	Shrub, sole native species.
Caprifoliaceae	*Sambucus nigra* L. (elder)	Shrub or small tree; native. The identification, based upon a single fragment could not be confirmed as the charcoal was very friable.

aimed to characterise frequently utilised resources rather than to provide a complete list of species; those noted are in Table 4.9. Samples with less than 20 identifiable fragments are excluded, but are referred to in the discussion.

The condition of the charcoal was particularly poor, with a high degree of sediment infusion and friability. A number of the samples contained a comparatively high diversity of taxa, including genera that are anatomically similar and can be difficult to distinguish, especially in poor material. The distinction between the Maloideae, *Ligustrum* and *Euonymus,* for instance, was not certain when the key characteristics in longitudinal sections were not readily visible. It is also likely that additional species would have been identified if more fragments were examined and it is quite plausible that more than one species of the Maloideae (i.e. hawthorn, crab apple etc.) and the Prunoideae (i.e. blackthorn, cherry etc.) were represented. The cremation related samples were generally better preserved, often with larger fragments, and the relatively restricted taxonomic range meant that the identifications were quicker and more secure. There were no indications that exotic species were present.

SAMPLES FROM CREMATION BURIALS AND RELATED DEPOSITS

In contrast to the relatively high diversity of the non-cremation features, the samples associated with cremations had a low taxonomic diversity, with only five taxa identified (Table 4.10). Where the overall quantity and condition of charcoal in a sample was adequate to establish dominance, it is apparent that oak and ash dominated the assemblages (Fig 4.58). This also shows that the possible pyre debris from *bustum* M1B[5019] was entirely dominated by oak. The sample was extremely rich, with very large well preserved fragments of oak, >40mm in transverse section, and comprising much sapwood and roundwood. No tyloses were noted, nor were whole stems, but some moderate or strong ring curvature suggests immaturity. Growth rates appeared quite fast, with 13+ rings. Other samples did not have the preservation to be conclusive, but provided little evidence for heartwood, with few tyloses.

Two samples with significant quantities of Maloideae were from the grave fills of burials M1A[4069, 4136]. An analysis of taxonomic diversity shows that the backfill samples tended to be more diverse than the urn fills, and that the non-cremation assemblages were significantly different (Fig 4.59). The assemblages include all 37 cremation related samples, excluding the *bustum* at Site M1B, but including those with fewer fragments. Although this may introduce a bias of preservation, it is interesting to note that more of the urns contained better preserved and larger fragments of charcoal than the grave fills, independently of sample size. This has a number of implications; the charcoal in the burial urns was collected post-cremation, presumably accidentally, with the larger fragments of human bone and the smaller charcoal fractions therefore missing. Material in grave fills may be redeposited pyre debris, including all the small ashy material, which suffered additional fragmentation through its journey from pyre to deposition. The grave fills may include residual charcoal from more than one cremation event and possibly non-funerary charcoal, hence higher taxonomic diversity. The single taxon dominance in the urns may represent fragmentary remains of a single length of wood, rather than overall dominance of fuel.

In cremation burial M1A[4221] the context record suggested that a plank from the pyre was laid on top of the cremated bone. Both the samples from the main urn and the accessory vessel of this burial were dominated by ash species. Other urns with potential deliberately placed pyre debris also appear to have a dominance of one taxon in the urn sample and occasional additional species in the grave fill (Table 4.11). The use of ash or oak could relate to the bier structure rather than just fuel,

Table 4.10: Charcoal analysis for cremation-related features

Feature type	**grave fill**	**urn**	**grave fill**	**urn**	**grave fill**	**grave fill**	**urn**	**ancillary vessel**	**grave fill**	**bustum**
Cremation burial	4069	4099	4136	4146	4219	4219	4221	4221	4221	5019
Oak	-	-	1	50sh	44s	48s	-	-	6	50sr
Hazel	-	1	-	-	-	-	-	-	-	-
Prunoideae	2r	-	3r	-	-	-	-	-	-	-
Maloideae	8r	-	11r	-	6	2	-	-	3	-
Ash	18	49rs	-	-	-	-	50s	50sr	41r	-
Indeterminate	2	-	5	-	-	-	-	-	-	-
Totals	**30**	**50**	**15**	**50**	**50**	**50**	**50**	**50**	**50**	**50**

r=roundwood; s=sapwood; h=heartwood

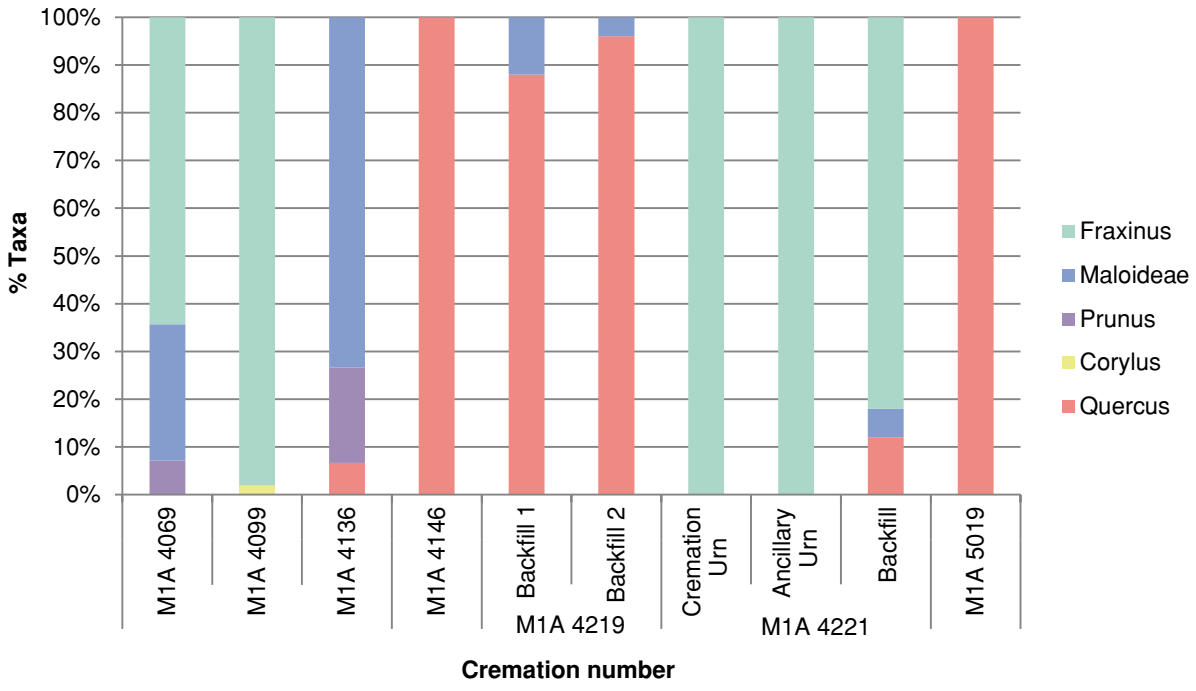


Fig 4.58 Taxonomic composition of charcoal from cremation burials, 450 fragments

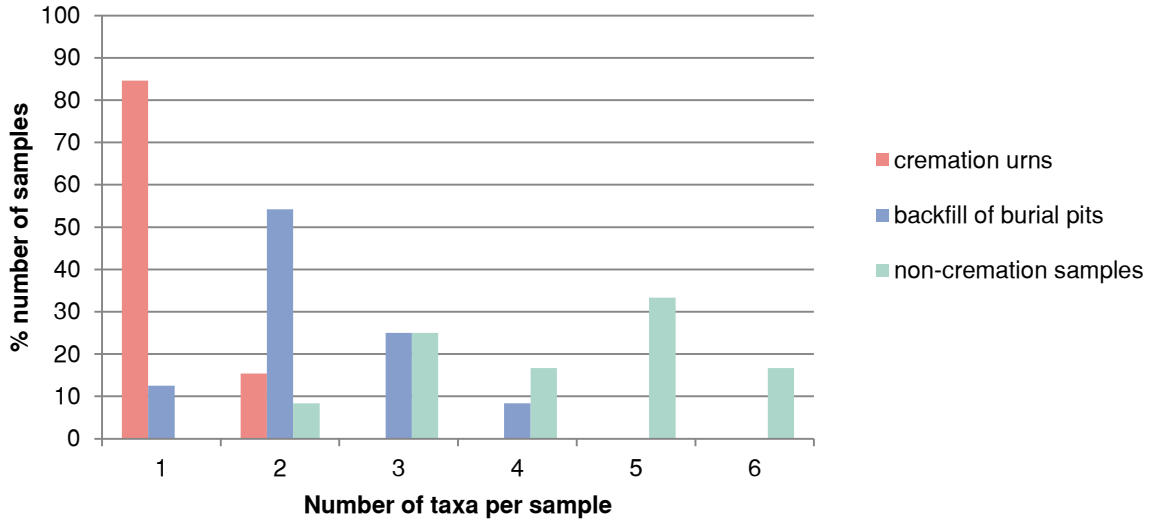


Fig 4.59 Taxonomic diversity of charcoal assemblages by feature type

Table 4.11: Taxonomic dominance in charcoal assemblages from cremation burials with pyre debris

Feature	urn	grave fill	urn	grave fill	urn	grave fill	urn	grave fill	urn	urn	ancillary vessel	grave fill
Cremation burial	4099	4138	4138	4146	4146	4178	4178	4146	4146	4221	4221	4221
Oak	-	x	x	**x**	**x**	x	**x**	x	**x**	-	-	x
Alder/hazel	x	x	-	-	-	-	-	-	-	-	-	-
Prunoideae	-	-	-	-	-	-	-	x	-	-	-	-
Maloideae	-	-	-	x	-	-	-	x	-	-	-	x
Ash	**x**	-	-	-	-	-	-	-	-	**x**	**x**	**x**

x=present; **x**=dominant

as suggested at West Hampnett, Sussex (Gale 1997, 82). Contemporary cremation assemblages are commonly dominated by oak and/or ash, as seen at Court Drive, Dunstable (Austin 2010), Bedford (Challinor 2008) and further afield at the A120, Essex (Challinor 2007b) and Pepper Hill, Kent (Challinor 2006).

At Site M1A oak (*c.*79%) is more frequent in the cremation assemblages than ash. Whether this represents any deliberate selection of fuel relating to age or gender cannot be established. The burials that were examined were probably all adults, but the bone dataset for these is too incomplete to provide gender. There is no apparent pattern of change in fuel wood selection over time.

SAMPLES FROM CONTEMPORARY NON-FUNERARY FEATURES NEAR THE CEMETERY

The fragment counts from non-funerary charcoal assemblages are provided in Table 4.12. With the exception of one context, all of the charcoal produced assemblages of 60+ fragments, >2mm in size. Not all of this was identifiable, however, due to the poor state and condition. Twelve taxa were positively identified, with an average of 4.5 taxa per sample, and it is likely that this figure is an under-representation of the diversity (Fig 4.59). Maloideae (i.e. hawthorn, crab apple etc.) and the Prunoideae (i.e. blackthorn, cherry etc.) were especially dominant both in fragment count and presence analysis, in all but one sample. This suggests that oak was fairly common; it was present in most samples, but usually as one or two fragments in every 30, the exception being posthole M1A[4212], where this taxon was dominant. This was the only non-cremation burial deposit to produce a large quantity of oak, and the presence of heartwood with either none or a faint ring curvature indicated mainly mature trunkwood. The other samples produced a fair quantity of roundwood, with a moderate to strong ring curvature. There were no complete stems with pith and bark, and sizes were generally too small to estimate maturity, but the general impression was that many fragments derived from branch or small trunk wood.

The general character of the wood types in these assemblages discounts the possibility that any of the charcoal in the nearby enclosure from posthole group M1A[4015] represents burnt posts. Any structural remains are unlikely given the dominance of shrubby-type taxa. The apparent contrast between these non-funerary assemblages and the cremation samples suggests that this material is probably not pyre debris (Fig 4.59). A number of the assemblages were relatively large, comprising several hundred fragments, which suggests some deliberate dumps rather than just windblown dispersed material. A particularly notable characteristic is the dominance of hedgerow or scrub type taxa such

Table 4.12: Charcoal analysis for non-funerary features close to the cemetery

Feature	**4028**	**4046**	**4212**	**4030**	**4032**	**4034**	**4036**	**4036**	**4038**	**4042**	**4058**	**4055**
Context	**4027**	**4045**	**4211**	**4029**	**4031**	**4033**	**4035**	**4035**	**4037**	**4041**	**4059**	**4055**
Oak	2r	-	29h	-	1	1	-	-	1r	2r	1	1
Alder	-	-	-	-	-	-	-	-	-	-	1	-
Hazel	-	-	-	-	-	-	-	-	-	5	-	-
Alder/hazel	-	-	-	1	-	-	1	-	2	-	-	-
Roses	-	-	-	-	1r	1r	-	-	1	-	-	-
Prunoideae	9 r	10r	-	12r	6	4	6	13r	6r	11r	5	5r
Blackthorn	-	6r	-	-	-	-	-	-	-	1	-	1
Maloideae	12r	10r	1	17r	22r	15r	13r	7	7r	9r	20r	20r
Spindle	-	-	-	-	-	3r	-	-	-	-	-	-
c.f. *Euonymus europaeus*	-	-	-	-	-	-	-	1r	-	-	-	-
Field maple	5r	-	-	-	-	-	-	-	-	-	3r	2
Ivy	-	-	-	-	-	-	-	-	-	2	-	-
Wild privet	2r	4r	-	-	-	-	-	-	-	-	-	-
c.f. *Ligustrum vulgare*	-	-	-	-	-	-	-	-	-	-	-	1
Elder	-	-	-	-	-	1	-	-	-	-	-	-
Indeterminate	-	-	-	-	-	5	10	9	7	-	-	-
Totals	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**24**	**30**	**30**	**30**

r=roundwood; h=heartwood

as *Prunus,* Maloideae, *Euonymus, Ligustrum, Sambucus* and *Rosa*. This makes it tempting to speculate that the charcoal represents burnt trimmings from hedgerows. In any case, it appears that the wood was sourced from an open landscape; a picture which is indicated at other Romano-British settlements in the region on the A421 (Challinor 2007a) and at Burton Latimer (Challinor, in prep). Pollen from a sequence at Ruxox, near Flitwick, suggested that much of the oak and hazel woodland was cleared by the mid 1st century AD, which showed strong evidence for open conditions of waste ground, grassland or pasture, and cereal cultivation (Scaife 2004, 281).

Conclusion

This charcoal offers an interesting distinction between the cremation burial samples, which are characterised by low taxonomic diversity with dominance of oak and occasionally ash, and the non-funerary samples, which exhibit higher taxonomic diversity, dominated by shrubby and hedgerow type taxa. The evidence from Site M1A suggests that the wood utilised for non-funerary purposes was small diameter roundwood sourced from hedgerow and scrub habitats indicative of an open landscape.

The dominance of a single taxon in early Roman cremation assemblages is relatively common and the apparent scarcity of oak, or absence in the case of ash, from the domestic type assemblages suggests a preferential selection of wood for cremation. This is consistent with the interpretation at Dunstable, where Austin proposes that oak was preferentially selected, as it would not have grown well on the thin, calcareous soils that cover much of the area (Austin 2010, 263).

Table 4.13: Summary count of Roman features containing plant macrofossil remains

Feature type	**Burials**	**Pyre debris**	**Pits**	**Spread**	**Postholes**	**Ditches/ gullies**	**Other**
No. of samples	52	1	3	1	8	5	1
Cereals and seeds							
oats (grains)	2 (4%)	-	-	-	-	-	-
barley (grains)	1 (2%)	-	-	-	-	-	1
wheat (grains)	-	-	-	1	-	2	1
wheat (chaff)	2 (4%)	-	-	-	2	-	1
cereal, indeterminate (grains)	8 (15%)	-	-	-	-	3	1
seeds	5 (10%)	-	1	1	-	1	1
Other material							
charcoal <2mm	52 (100%)	1	3	1	8	5	1
charcoal >2mm	38 (73%)	1	3	1	8	2	1
charcoal >5mm	12 (23%)	1	3	-	5	1	1
charcoal >10mm	-	1	-	-	-	-	-
charred root/stem	16 (31%)	1	-	1	7	1	1
black porous and tarry residues	22 (42%)	1	-	-	1	4	1
burnt bone	26 (50%)	1	-	-	-	4	1
burnt/fired clay	15 (29%)	1	-	-	-	-	1
burnt organic concretions	1 (2%)	-	-	-	-	-	-
burnt stone	-	1	1	-	5	-	-
Average flot size	<0.1	1.9	0.4	<0.1	0.1	0.1	<0.1
% of flot sorted	**100%**	**<12.5%**	**25%**	**100%**	**100%**	**100%**	**100%**

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS

BY VAL FRYER

Samples for the retrieval of the plant macrofossil assemblages were taken and 76 were submitted for assessment; five of these were medieval, the remainder were of late Iron Age and Roman date.

As none of the assemblages contained a sufficient density of material for quantification (100+ specimens), full analysis was not undertaken. This report is, therefore, an update of the plant macrofossil assessment (Fryer 2016).

SAMPLE COMPOSITION

Plant macrofossils other than fragments of charcoal/ charred wood were generally scarce, occurring within only 38% of the overall assemblages studied (Table 4.13). Preservation was mostly very poor; many of the grains and seeds were very fragmentary and were also puffed and distorted. The material within many of the assemblages was heavily impregnated with minerals.

Oat, barley and wheat grains were noted along with a number of other cereals which were too poorly preserved for close identification. Chaff was very scarce, but emmer and spelt wheat glume bases were noted within the assemblages from two postholes from the enclosure next to the cremation cemetery at Site M1A and one pit from TWB3.

Weed seeds were extremely scarce, occurring within only eleven assemblages; all common segetal and grassland taxa including brome, small legumes, goosegrass, ribwort plantain and knotgrass.

Charcoal/charred wood fragments were present at varying densities throughout. Other plant macrofossils occurred infrequently, but included pieces of charred root or stem, an indeterminate thorn and a possible tuber fragment.

The fragments of black porous and tarry material, which were recorded within 42% of the assemblages, were probably residues from the combustion of organic remains at very high temperatures. Other remains included pieces of burnt or fired clay, burnt stone fragments, small sherds of pottery and coal fragments. The latter were almost certainly intrusive from 19th-century traction engines.

SAMPLES FROM CREMATION BURIALS AND RELATED DEPOSITS

Fifty-two cremation related samples, mainly from grave fills, were submitted for assessment along with one sample from the *bustum* at Site M1B. With rare exceptions, the assemblages were all less than 0.1 litres and sparse, with some containing only occasional flecks of charcoal. The few charred cereals and seeds were likely to be either accidental inclusions or relicts of plants burnt *in situ* beneath the pyres.

The assemblages from two cremation burials, M1A[4219 and 4221], contained a far higher density of charcoal/charred wood than any of the other funerary deposits studied. In this respect, they were similar to the assemblage from the *bustum* at Site M1B, which was both comparatively large (*c.*1.9 litres) and almost entirely composed of large (>5mm) fragments of charcoal.

SAMPLES FROM CONTEMPORARY NON-FUNERARY FEATURES NEAR THE CEMETERY

Eighteen assemblages are from pits, postholes, ditches and gully fills of probable Roman date. They are mostly small and sparse, and only rarely is it possible to speculate about their taphonomy. Cereals, chaff and weed seeds are present within the assemblage from pit M1C[7018] along with burnt animal bone that may indicate a small deposit of hearth waste. Cereal processing refuse within such a context is not unusual; similar material is known to have been used as either fuel or tinder within domestic, industrial and funerary contexts (van der Veen 1999). The assemblage from burnt spread M1A[4055] may also contain hearth waste, although it is sparse and like much of the material from ditches or gullies is probably derived from scattered or wind-dispersed refuse incorporated within the feature fills (Fig 4.3).

With the exception of four wheat glume bases, the eight assemblages from posthole group M1A[4015] contain little other than charcoal/charred wood fragments. Five of the eight assemblages also contained small pieces of burnt stone, not seen elsewhere on site.

CONCLUSION

Although a comprehensive strategy of plant macrofossil sampling was followed, the potential of the recovered assemblages was low; most were very sparse and preservation was generally very poor.

Table 4.14: Species identified from animal bone, by fragment count, Site M1A

Species	MNI	NISP	Proportion (%)
Cattle	2	9	16.4
Sheep	1	1	1.8
Large ungulate size	1	20	36.4
Small ungulate size	1	25	45.4

There was little evidence that dried plant materials and small roundwood was used as kindling, largely because of the poor rate of macrofossil retrieval resulting from the heavy mineralization and encrustation of the remains. The few seeds recorded within the cremation deposits indicate that grassland conditions were locally prevalent. There was no evidence of food offerings.

Plant remains were also very scarce in non-funerary deposits. The close proximity of features to the cremation cemetery may, in part, explain the paucity of remains as it is unlikely that any waste generated nearby would be typical of that seen, for example, within either domestic or agricultural contexts. Some evidence for midden deposits is recorded but is not surprising, as those constructing the pyres and conducting the ceremonies would almost certainly have left some subsidiary waste.

FAUNAL REMAINS

BY LASZLO LICHTENSTEIN

ANIMAL BONE FROM THE CREMATION CEMETERY AT SITE M1A

A total of 52 (175g) hand-collected animal bone elements and fragments were recovered from ditches adjacent to the cremation cemetery at Site M1A. Seven specimens (13.5% of the total NISP) were identified to taxa and parts of anatomy, representing cattle and sheep.

The bones were generally in very poor condition, with the bone surface severely abraded and flaking away because of the highly acidic soil conditions. The fragmentation was very high with 91.5% of bone less than 50mm in size. No complete long bones were recorded because the proximal and the distal ends were damaged. No evidence for burning, butchery or bone working was observed.

Due to the high fragmentation, only 18.2% of bone was identified to species (Table 4.14), and the majority of this came from cattle.

Little age data was available from tooth wear or eruption. A cattle third molar was from an adult, younger than five years. One slightly worn down sheep first molar was from a juvenile animal.

ANIMAL BONE FROM ROMAN BOUNDARIES, PITS AND GULLIES AT TWB3

This material was recovered from fills of ditches, pits and gullies on the opposite side of the valley to the cemetery site. There are 621 (6,443g) hand-collected animal bone elements and fragments, 302 specimens (48.5% of the total NISP) were identified by taxa and parts of anatomy, representing cattle, horse, sheep/goat and pig (Table 4.15). The majority of bones came from cattle and there were no avian, fish, amphibian or small mammalian bones among the sieved samples.

The bones were generally in good condition, but the fragmentation was high with the majority (57.2%) being less than 50mm in size. No complete long bones were recorded because the proximal and the distal ends were damaged. Gnawed and butchered bones were noted, 22 fragments were affected by butchery (3.5%). Canid gnawing was found on six bones (1%), an indicator that dogs were free to scavenge through food waste.

Ageing data was available from the cattle teeth and bone fusion (Table 4.16), mainly on cattle bones showing that at least four individuals were mature at death. The horse teeth and bone was part of a mature animal. A single pig canine indicates that this individual was an adult sow.

Table 4.15: Species identified from animal bone, by fragment count, TWB3

Species/Taxa	MNI	Count	Proportion (%)
Cattle	6	249	40.0
Horse	2	37	5.9
Sheep	2	7	1.1
Sheep/goat	-	4	0.7
Pig	1	5	0.8
Large ungulate size	1	240	38.7
Small ungulate size	1	39	6.3
Unidentified	-	40	6.5
Totals	**13**	**621**	**100.0**

Table 4.16: Ageing data for cattle teeth, TWB3

Feature	Years
Ditch M1C[7040]	One individual younger than 2 years
Ditch M1C[7040]	2x individual adults
Gully M1C[7053]	Older than 15 years
Pit M1C[7065]	One individual younger than 2-2.5 years
Pit M1C[7065]	1x individual adult

CREMATED HUMAN REMAINS

BY SARAH INSKIP

Cremated bone analysis suggests that there are 57 individuals in 48 burials; 45 were adults, four were infants or juveniles and eight could not be aged with confidence. Four deposits contained two individuals, which in one case, was that of an adult and a juvenile, and in another was a male and a female. Nine possible males and nine possible females were identified. Little was observed in terms of pathology, however, osteoarthritis of the spine was evident in seven instances. The fragmentation, colour and elemental representation accorded well with those cemeteries identified at Court Drive in Dunstable (Melikan 2010) and at Harlington quarry (Jackman 2001), which may suggest a standard method of cremation in the region.

PRESERVATION, FRAGMENTATION AND COMPLETENESS

Due to the loss of the organic component during the cremation process, cremated bone tends to preserve well (Mays 2010). Spongy bone, such as that of the femoral head was fragile (McKinley 1997, 245).

McKinley suggests that the number of skeletally distinguishable elements relates to the level of fragmentation; the bigger the fragments, the more that can usually be identified (1997, 69). Fragmentation was sorted by sieve fraction and the quantity of remains in the 5-10mm range varies from 22.98-86.71%, with an average of 72%, excluding deposits with less than 100g of material. This is consistent with undisturbed burials, and those of urned cremations, where protection is offered to the remains (McKinley 1997, 251). Accordingly, many skeletal elements were identifiable. The level of fragmentation was also similar to that at Court Drive (Melikan 2010) and at Harlington quarry (Jackman 2001), and fits within the normal ranges identified for cremated deposits with minimal overall truncation. This suggests the impact of ploughing has been low to minimal on the actual cremated bone deposits despite fragmentation of pottery and the loss of part of the burial features.

Modern studies demonstrate that a complete cremated adult skeleton should produce well in excess of 1kg of bone (Mays 2010, 326; McKinley 2000, 404) and juveniles around 0.5kg (Trotter and Hixon 1974). As such, it appears that many of the cremated deposits are incomplete (Table 4.3). As cremated bone is more resistant to digenesis than unburnt bone and tends to preserve well, the cremated deposits that appear underweight may be the subject of token selection from the pyre. An alternative cause may include the significant loss of spongy bone.

SKELETAL ELEMENT REPRESENTATION

An interesting feature of the deposits was the variation in the proportions of different elemental groups. Considering only deposits with over 200g of remains, cranial elements made up to 11.9% of the deposits, with a further 0.1% from the teeth and mandible. The upper limbs comprised 9.5%, and lower limbs made up 19.6% of the deposits, with an overall 37.5% of long bones including those unidentifiable to body part. The axial remains represented between 4.6% of the deposits. Hands and feet make up 1.5%. The remaining 44.4% of cremated bone was unidentifiable.

Rather than representing a preferential recovery of the skull and mandible, the inflated proportions of cranial fragments can be explained by the high number of identifiable features on the skull. McKinley (1998, 19) suggests that all cremation burials are in fact token and that the entire deposition of remains was not a critical aspect of burial. If this is the case, it might be expected to see more uniformity in cremated deposit quantities and element representation than is apparent, unless the method of token selection was performed in different ways for different individuals.

The low quantity of the axial elements has been noted in many cremated deposits, and this has been linked to the high proportion of cancellous bone in this area (McKinley 1997). In addition, the scapula is extremely fragile and prone to considerable fragmentation. As such, the lack of axial elements should not be cause for concern. In a similar fashion, the low percentage of carpals and tarsals is also likely to be due to their high cancellous bone content.

COLOUR

Over 85% of the remains were buff or white in colour, which is indicative of full oxidation of the bone and loss of the organic component (Shipman *et al.* 1984); this is associated with temperatures in excess of 900°C (Bonucci and Graziani 1975, Shipman *et al.* 1984). In the same experiments, light grey, grey and blue colouration occurs at 550°C. This demonstrates that high temperatures were reached within the pyres. As these results are consistent with the deposits recovered from Court Drive and Harlington quarry, there was local consistency in the pyre method used.

When considering variation in colour across the body, there was little to suggest body part differentiation in the pyre, although in some cases there were skeletal areas with less burning than others. In burial M1A[4106] the elbow region was grey, while the remainder of the skeleton was buff and in burial M1A[4174] the lower limbs had significant patches of grey and black bone.

This reflects localised variations in pyre temperature, minor differences perhaps arising from weather conditions or the presence of other items on the pyre. In general, the lower limbs had more grey surfaces than the upper limbs, and this is probably related to differences in bone thickness. In some cases the periosteal surfaces of long bones and ectocranial vault fragments were white and buff in colour, whereas the endosteal and endocranial fragments were grey. Internal surfaces would initially be protected from heat by the external bone, but become exposed as the cremation progresses and bones fragment open. Some of the long bone fragments were not the same colour through the bone matrix. While external surfaces were white or buff, the internal bone was sometimes grey or black. This was particularly notable for the lower limb bones, which are thicker than the upper limb bones and may suggest a short, but high temperature burn with ample oxygen. Little colour variation between deposits may mean a consistent standard of cremation. However, in pyre debris brown and black fragments were also present that are consistent with fragments falling to other areas of the pyre that may be hotter or cooler, so it is notable that the colour of the remains from the *bustum* at Site M1B lacked this differentiation.

Demography

The number of individuals was calculated at a maximum of 62, although excluding the small deposits and pyre debris, only 57 individuals were well represented (Table 4.3). Four deposits contained two individuals, which in one case, were that of an adult and a juvenile, and in another were a male and a female, as evidenced by a discrepancy in size and the presence of two right temporal bones. Nine possible males and nine possible females were identified.

Forty-four (77%) were adults, five were infants or juveniles and seven could not be aged with confidence. This distribution is similar to that at Court Drive, Dunstable, where 5% of the remains were those of children. It was possible to give age ranges for nine of the adults. This was largely based on the presence of auricular surface fragments, the degree of cranial suture closure and osteoarthritis. It is extremely difficult to give precise estimates, and as such the categories are wide. There were two young adults (<25 years), two young to middle aged adults (21-45 years) and five middle or older adults (45+ years). Four immature individuals were identified but it was only possible to be specific on the age of one of these. Since the spinal column progressively fuses together during early childhood, it was evident that the neural arches were fused, but that the bodies of the vertebra were not fused to the arches. As such this makes the individual around 1-2 years of age (Scheuer and Black 2000).

Sexing cremated remains is problematic as the os coxae and pelvic traits do not survive. Gender estimation relied on identifying cranial traits, and considering general size. Examination identified nine possible males and nine possible females. The Court Drive and Harlington quarry cemeteries ageing and sexing data is equally limited and cannot be compared to the remains from Site M1A. Inhumation cemeteries at Friary Fields (Gardner 2004) and at Dunstable (Matthews 1981) had equal numbers of males and females.

Pathology

The destructive nature of the cremation process usually prevents the analysis of pathology; however, some observation of osteoarthritis was possible. Seven individuals had evidence of osteoarthritis in the spine manifesting itself in three forms. Six had osteophytes; three with osteophyte development on the axis dens and three with apophyseal facet osteoarthritis. The remains of two individuals in the same burial also showed degenerative disc disease in the cervical region. As the most common visible pathology, it was also recorded at Court Drive and Friary Fields (Mays 2010; Matthews 1981). There was no evidence for extra-spinal osteoarthritis for any of the observable joint surfaces, which probably reflects the poor survival of cancellous bone in cremated deposits.

There was evidence for periostitis on a fragment of tibia shaft from burial M1A[4190]. This may indicate the presence of an infection or a localised trauma and is extremely common in archaeological remains (Roberts and Cox 2003). One individual was identified with antemortem tooth loss.

Conclusion

The trends identified for the burials fit extremely well with others of the period and within the local region. It is extremely common to find Roman burials, both inhumation and cremated deposits, along roads. Burial within the bounds of settlement was generally forbidden (Jupp and Gittings 1999). The predominant funerary practice in the region until the mid 2nd century AD was cremation. The presence of animal bone, nails and other grave goods is another common feature and with parallels both locally and further afield (Melikan 2010; Jackman 2001; McKinley 1997). Although the cremation process is ultimately destructive, much can be learnt from the analysis of cremated bone. This includes both details on the individuals, as well as the cremation process. In both cases there was great similarity between the remains examined here and that of nearby Court Drive, Dunstable (Melikian 2010) and at Harlington quarry (Jackman 2001).

When considering the pyre conditions and the recovery of the remains, there was particular similarity between the colour and fragmentation. This may suggest that

Table 4.17: Radiocarbon determinations from funerary remains, M1 Junction 12

Laboratory & Sample no.	**Context**	**Sample Details**	**C13/ C12**	**Conventional Radiocarbon Age BP**	**Cal BC/AD Intercept** *68% confidence* **95% confidence**
Beta-343280 M1J12/5018	pit M1B[5019]	charcoal (oak)	-25.9	2010±30 late IA/Roman	*40BC–AD20* **90–80BC/50BC–AD60**
Beta-343607 M1J12/B51	burial M1A[4251]	human bone	--	no collagen	--

Laboratory: Beta Analytic, Miami, Florida, USA
Analysis: Standard AMS, Calibration: INTCAL09 Radiocarbon Age Calibration

there was a standard method of cremation in the local region. All deposits demonstrate a high temperature was achieved with ample oxygen. The inconsistent colour identified in some of the bone cross-sections may infer a high temperature with a short burn time in some cases. In general, there was no evidence for differential burning of body parts. Where colour variation was present these represented a normal burning pattern; thicker bones have colouration more consistent with lower temperatures or less exposure and inner bone surfaces were more often grey than the outer surfaces. There were only two cases of uneven burning.

Like many cemeteries with cremated deposits, the identity of individuals was inhibited by the destructive nature of cremation. While it was possible to tell whether the individuals were adult or juvenile in most instances, a more specific age estimate was limited. In terms of gender estimation, 18 adults could be identified; nine possible males and nine possible females. The even balance may suggest that all members of the population were included in the cemetery. The presence of osteoarthritis and periostitis also fits with trends identified at the cemetery at Court Drive and at Harlington quarry. Overall, the cemetery held a good sample of individuals and there was nothing unusual amongst the remains to indicate anything other than a small funerary plot serving a local rural population over several generations.

AN INHUMATION BURIAL, M1A[4250]

BY SARAH INSKIP

A single femur was recovered from the cremation cemetery at Site M1A; the other remains were too poorly preserved for exhumation (Fig 4.54). The femur was highly fragmented, possibly due to truncation, but despite this had 75%+ of the cortical bone remaining despite rodent gnawing. Due to the loss of the epiphysis, it was not possible to assess the age accurately but the size of the bone suggests either a teenager (15+ years) or an adult of smaller stature. There were no pathological changes of note.

RADIOCARBON DETERMINATIONS

Dating was required for the *bustum* from Site M1B, to determine whether it was contemporary with similar funerary activities at the cremation cemetery at Site M1A. Since the deposit was entirely oak, only sapwood and roundwood was selected, in order to give the closest possible date range. The result has placed the burning event in the 1st centuries BC–AD and is therefore comparable. The detailed result of this analysis is provided in Table 4.17.

An attempt was made to date the inhumation burial M1A[4250], in order to phase its interment with those of cremated burials, however, poor collagen survival made such dating impossible.

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

One late Iron Age/Roman site is recorded by the Historic Environment Record (HER) within 1km radius of M1 Junction 12. The data was checked for more recent discoveries following draft review of this article in 2015, and there were no further additions except those pertaining to the present article. A general overview of contemporary settlement in the region is summarised in Chapter 6, and a summary specific to burials is given in Chapter 5.

CONTEMPORARY ACTIVITY

An area of occupation (HER101) was located *c.*750m to the south-east of M1 Junction 12 at Sheepwalk Hill, upon its upper slopes, and commands a view across the valley from which Site M1A can be seen (Fig 4.1). The site was not only a Roman settlement of some affluence, but was also a focus for later Saxon burial. A Roman burial containing Samian vessels was found in the adjoining field, 1844–1885. In the early 1990s evaluation and excavation at Harlington quarry in response to

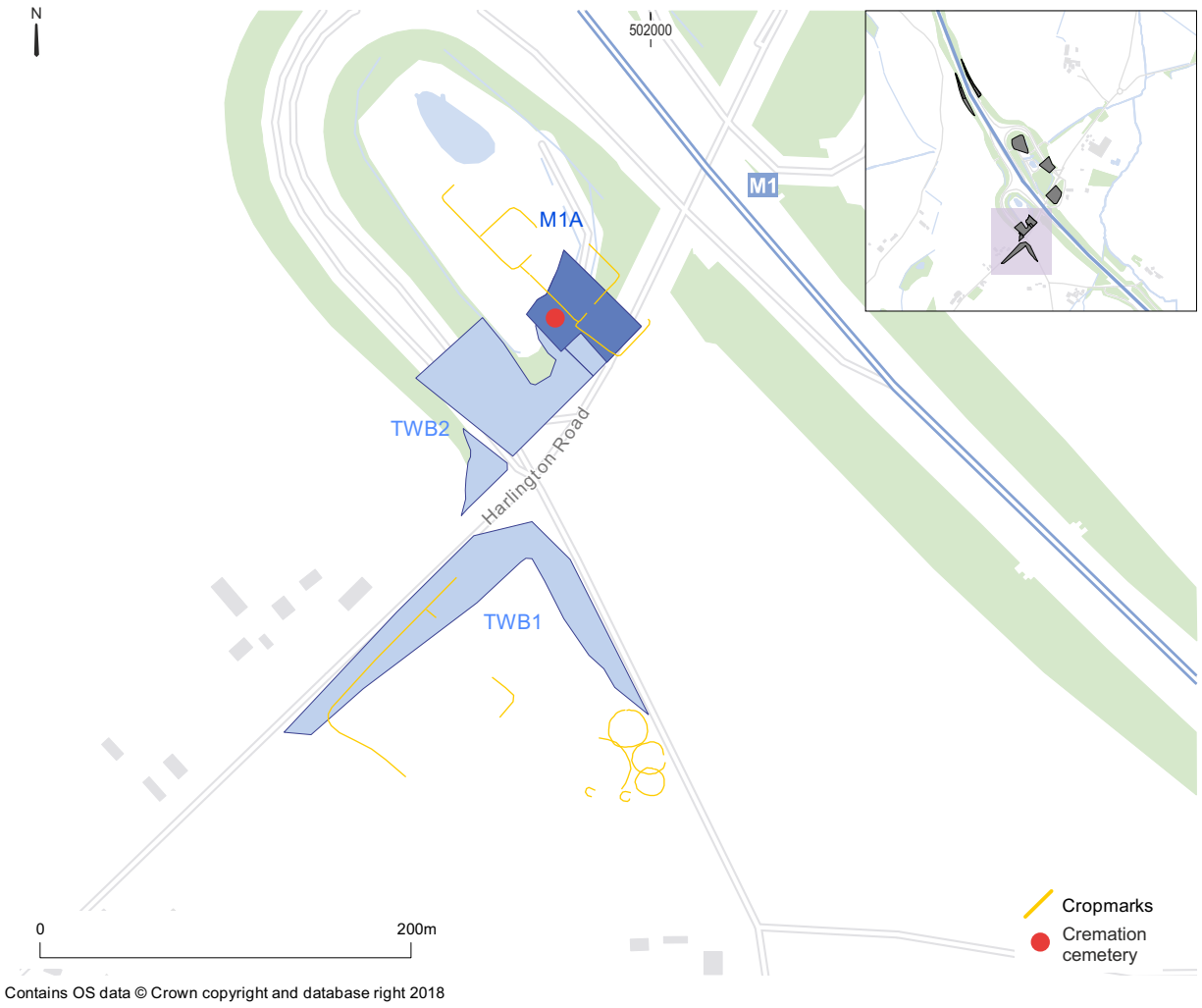


Fig 4.60 Cropmarks on aerial photographs (OS/73060, April 1973, 363)

material found during quarrying uncovered eleven Roman cremation burials, dating from the late 1st–early 2nd centuries AD (HER E377; Dawson 2001). Late Iron Age material was also found in association with cremated bone, but much of this was retrieved from the quarry spoil heaps. Structural remains of Roman date, consisting of postholes and stakeholes were also found, along with ditches containing domestic rubbish. It seems likely that a late Iron Age settlement acquired wealth and prosperity under Roman rule, adopted Roman lifestyles and led to the development of a substantial villa-like structure with a concrete floor.

A walkover survey of the scheme by Scott Wilson for earlier M1 motorway widening proposals noted the presence of a large fragment of Roman pottery, west of the motorway and south of Long Lane Farm (HA 2007a). Trial trench evaluation undertaken for the scheme found potential occupation of the 1st to 2nd centuries AD in the vicinity of Site M1A and TWB3 (Walker 2010), which were the subject of the detailed investigations described in this chapter. The initial view of dark charcoal-rich spread deposits at Site M1A was that it comprised industrial waste. The remains became apparent as pyre debris upon discovery of the cremation cemetery. Ditches examined in TWB3 are thought to be boundary ditches situated some distance from the settlement and belonging to Roman occupation of the late 1st to 4th centuries AD.

AERIAL PHOTOGRAPHIC EVIDENCE

An examination of the aerial photographic images held at the National Monument Record (NMR) in Swindon was conducted in order to examine the cropmarks noted by the previous desk-based studies (HA 2007a-d).

Possible cropmarks are visible in the vicinity of TWB1, but are very indistinct (RAF/58/4646, Aug 1961, 171). A clustered group of three to five circular features occur close to the east boundary of the field and directly south of the extent of the TWB1 area. Possible ditches are indicated to the west of these, further into the field, forming rectangular enclosures. The northernmost extent of these ditches might have been expected within TWB1, but were not observed.

There are very indistinct cropmarks within the corner of the field where Site M1A was located (OS/73060, April 1973, 363; Fig 4.59). The pattern is distorted by a gas main, which runs across the features and the scale is very small. There appear to be two small rectangular enclosures in the area that was excavated and there is a correlation with the excavated evidence. The cremation cemetery (Site M1A) lay outside of these enclosures, on their west side. To the north, there is the suggestion that a third, large rectangular enclosure adjoined them. However, it is hard to distinguish this as it is on the same alignment as later ridge and furrow.

The late Iron Age and Roman funerary evidence

The cemetery at site M1A was located within a cleared open landscape of grassland and it appears to have served a small rural community over a period of about 150 years, representing perhaps four to six generations. The cemetery occupied a north-facing slope on a valley spur and lay directly opposite a pyre burning site on the other side of the valley (Site M1B), where a *bustum* was discovered. Similar features were excavated at Court Drive, Dunstable, in close proximity to a cemetery of 20 cremations and seven inhumations (Edwards 2010, 241). This suggests that there could be a cremation cemetery on both sides of the valley, and that pyres may well have been burned in close proximity to the excavated remains at the cremation cemetery at Site M1A. Roman cemeteries were often located along main roads at the edge of settlement, and topography may also have played a role in this instance.

The use and abandonment of this cremation cemetery provides an opportunity to examine a closely datable group of funerary deposits over a period spanning almost two centuries. The cemetery developed from its origins in the pre-Roman late Iron Age and continued in use until the last burial in the mid 2nd century AD. It represents a much larger cemetery than either of the previously investigated local contemporary sites at Court Drive (Edwards 2010) or Harlington quarry (Dawson 2001). The cemetery comprised 57 cremated individuals in 48 burials with four key phases of development, sometimes with multiple occupants, and inclusive of all age categories. The initial layout of the cemetery was circular and seems to have contained a central focus with evidence for an oak timber post and other possible funerary activity, during the 1st centuries BC–AD. From the mid 1st century AD onwards the cemetery was arranged in rows. A similar observation was made at Court Drive, Dunstable, where the rows of burials extended from an earlier central cluster, and were aligned on nearby streets (Edwards 2010, 263). This linear arrangement was extended south as the cemetery use proceeded into the early 2nd century AD. The addition of later cremated remains to earlier graves, especially those in the final phase of use, may support an argument for continuity between family members and couples. Evidence of accidental disturbance during the original digging of the cremation pits is largely absent and even the earliest cremation burials seem to have retained their integrity, suggesting that the graves were visible or identifiable although it is likely that the identity of specific burials were forgotten once they passed beyond living memory. The lack of disturbance of the earliest graves is perhaps more due to chance than design. The development of the cemetery with a fairly consistent number of additions in each period may indicate that it served an extended family group from a nearby community, whose origins belong to native late Iron Age traditions and which subsequently gained affluence and adopted a Roman lifestyle in later centuries.

The charcoal offers a distinction between the cremation samples, which are characterised by low taxonomic diversity with dominance of oak and occasionally ash, and the non-funerary samples which exhibit higher taxonomic diversity, dominated by shrubs and hedgerow type taxa. The dominance of a single taxon in early Roman cremation assemblages is relatively common and the apparent scarcity of oak from other assemblages suggests a preferential selection of wood for cremation. This is consistent with the interpretation at Court Drive, Dunstable (Austin 2010, 263). There is some indication that dried plant materials and small roundwood may have been utilised as kindling but there does not appear to be any evidence for the deposition of food offerings within the pyres.

The artefactual development is clear and illustrates the development of the cemetery. Initially, in the late Iron Age, the pottery vessels were handmade locally, with jars being the only form used for cremation urns. They conform to what is often termed the Gallo-Belgic style (Matthews 1989), utilising a variety of grog-based fabrics. This is similar to the solitary coarseware jar used as an urn and recovered from Fancott in 1858, *c.*1 mile to the south, which was accompanied by a beaker and two squat jars as accessory vessels (Pollard 1991, 103). At Court Drive, Dunstable, the dominant choice for urns were jars in harsh sandy ware (R14; Edwards 2010, 243). This is notable by its complete absence from the Site M1A, where a range of fabrics were used, with the most common choices being grog (F17, 10 examples) and then later, sandy black ware (R07, 14 examples). Neither fabric was present at Harlington quarry (Dawson 2001, 26-29) or Court Drive (Slowikowski 2010, 247, table 3). Dawson draws a distinction in the sourcing of pottery at Harlington quarry (Dawson 2001, 37). This assemblage is more consistent with sites north of the Greensand Ridge, indicating pottery was sourced from different markets.

Only four (36%) of the burials that belonged to Phase 1, the 1st centuries BC–AD, contained accessory vessels, of which one (9%) had three vessels. By Phase 2, the middle of the 1st century AD, a combination of locally made pottery and recognisably pre-Flavian Roman fabrics were in use. Burial M1A[4224] contained both a pre-Flavian jar as the cremation urn with a locally produced beaker as an accessory vessel. It is thought that older pottery styles remained popular in the local region well into the 2nd century AD (Slowikowski 2010, 245). This was also the phase in which the choice of funerary vessel varied with the use of beakers or butt beakers in place of jars. The quantity of accessory vessels in Phase 2 was greatly increased, with 13 burials (65%) containing at least one vessel and four burials (20%) with three vessels or more. There was also a notable imbalance of funerary artefacts between burials; of the eight burials containing locally made urns, 75% contained accessory vessels, but only one burial (with no accessory vessel) had a brooch. The period is also the only one in which accessory vessels were buried separately from cremated remains.

By stark comparison, of the Phase 2 nine burials containing pre-Flavian Roman urns there were only five (56%) that contained accessory vessels. However, these burials had a rich array of other artefacts, which included a bronze mirror, three brooches, a ring, a game counter, five nails and other unidentified metal fragments. Typically this broad overall rise in grave goods has been seen as the product of economic growth and greater affluence amongst the local population; however, this is also the product of an increasing trend in burial practice towards making votive offerings and making them in different ways. Urns that were made in a local tradition were accompanied with accessory vessels as the primary choice of offerings, which were not necessarily personal artefacts, but may have been used for the consumption of food and drink during the funeral. These were instead replaced with a greater number of items that are recognisable as personal artefacts when accompanying Roman style urns, which may be either from the mourner or the deceased, such as the mirror and the brooches. Of particular interest in this period was the addition of the unurned adult to burial M1A[4144], which was marked by a brooch, the only instance where personal jewellery was found with locally made urns. None of the pottery or brooches exhibited evidence of being deliberately broken prior to burial, and the mirror could easily have broken post-deposition. This is in contrast to the artefacts and pottery from Court Drive, Dunstable, which are claimed to have been ritually broken prior to burial (Edwards 2010, 243, 264), and similarly no such observation was made at Harlington Quarry (Duncan 2001, 31-35). Given that the burials at Dunstable and Harlington Quarry were close to contemporary with the present site, there seems to have been a respect between two cultural traditions that were used side by side for the period of one or two generations, which is not too surprising when some families may have adopted Roman lifestyles quicker than others. Both traditions were, however, consistent in that they made deeply personal statements about the identity of the individual or that of the mourners.

However, from the late 1st century AD onwards, the burial tradition returned to a lower level of artefact deposition (excluding pottery) with no jewellery, no adornments, and far less personalisation to the burial. A single burial contained a group of nails suggesting the presence of a wooden artefact. Over 83% of the burials had accessory vessels and fully one third had three vessels, which is a distinct rise overall. If these vessels were indeed used for the consumption of food and drink during the funeral, then the practice continued and became more significant. The value of the accessory vessels was clearly greater, since 42% of the burials contained fine imported South Gaulish samian dishes, and other more regional, but distinctive pottery, such as a *Verulamium* flagon. This is a proportion comparable to that observed at Harlington quarry (Dickinson 2001, 29). By the middle of the 2nd century AD all of the burials contained accessory vessels, and over half of these had fine imported Central Gaulish samian dishes, also noted at Harlington quarry (*ibid*). Two burials contained nails suggesting an accompanying wooden artefact. The possibility of wooden artefacts is not clearly explicable but the size of the nails, 25–30mm long, suggests they could also derive from reused timbers from the pyre, although none of the nails exhibited the pristine condition associated with intense heating seen at Court Drive, Dunstable (Duncan 2010, 256).

Whilst burial practice, viewed through the artefacts, seems to change considerably over time, the method of interment did not. In total, 72% of cremations (41 individuals) were interred in individual urns and this was fairly evenly balanced across all periods. There were only five instances of unurned cremations and four instances where two individuals were buried in the same urn. These burials were spread across all phases. At Court Drive, Dunstable, every individual was buried separately; 16 in urns, three unurned and one in a casket (Edwards 2010, 243), all adults, except for one neonate cremated with an adult male (*ibid,* 264). At Harlington quarry there was greater diversity in the range of ages with at least two out of 13 cremations (in 11 burials) containing juvenile remains and at least one teenager or young adult (Dawson 2001, 23-26). One of the juveniles was buried together with an adult in an unurned cremation, five contained one individual per burial, and the others could not be ascertained (Jackman 2001, 35). Five of the burials were unurned and none were identifiable by gender.

Of the remaining 28% of cremations (16 individuals), all of these were buried in pairs or as groups. Amongst these there is one instance that suggests a couple of marital age, M1A[4092], buried together in separate urns and one instance that suggests a parent and child, M1A[4125], buried in the same urn. There is insufficient information to interpret the other pairs, which could represent couples, siblings or close relatives. Again, there is nothing to ascribe this practice to a single phase. The burial of more than one individual together suggests that the time of death could be influential upon the time of cremation. Two individuals cremated and interred in the same urn suggest they shared some kind of bond, given that the overwhelming common practice was to inter individuals in separate urns. If burial M1A[4125] does represent a parent and child, then they died and were cremated together at the same time, which occurred amongst 50% of pairs (eight individuals).

Instances where paired burials were interred in separate urns might be expected to form the majority of multiple burials, yet only 37% of the pairs showed evidence that they were interred at different times, with the remaining 13% having been interred at the same time. This suggests two things; that 63% of pairs were cremated at the same time, and that there may be an important distinction of social status between those who were buried in separate urns (perhaps non-blood relatives) as opposed to those buried in the same urn (perhaps blood relatives). The apparent high instance of death amongst people living in close proximity during an age of poor sanitation and hygiene is perhaps not particularly surprising.

This latter hypothesis is also reflected by the potential family burial groups. Eight individuals (14% of the cremations) were divided between two potential burial groups in the mid 1st century AD, possibly related as family units. There were no other potential instances of family burials in any other period and the ashes of all of these individuals were clearly separated. It may seem unlikely that related groups of individuals all required burial at the same time, but in both of these instances this seems to have occurred for some of the remains. Burial M1A[4144] comprised up to four individuals, including an infant of 1–2 years; two of these were interred in pottery urns, one of them in a butt beaker and the fourth was an adult, which was added later and buried unurned and accompanied by a brooch. The other potential family burial, M1A[4069], had three adults: two of whom were male, one older and one younger, all interred in separate urns and perhaps representing a mother, father and son. Relationships between the urns had been disturbed by a land drain, but not wholly ruined, so it is thought they were interred at the same time.

What is apparent, but perhaps not wholly explicable or understood from such a small cemetery (and yet the largest to be found locally), is that certain trends existed in funerary practice and how burials were interred did not necessarily remain consistent between cemeteries or time periods. A variety of explanations may include social practices and family relationships, social status, wealth and possibly even differing funerary practices across a recognisably polytheist society.

Of particular interest are comparisons with the Harlington quarry cemetery (Dawson 2001), where the occupation of the site continued beyond the use of the cemetery with the evolution of settlement on the south-facing slope of Sheepwalk Hill (HER101). By this time many settlements in the north hinterland of *Durocobrivis* (Dunstable) had been abandoned, like those at Puddlehill (Matthews and Warren 1992) and Court Drive, Dunstable (Edwards 2010). What appears likely is that from the 2nd century AD onwards there was a significant change in the way land was apportioned to the north of the town, and in such a way that some settlements continued or reorganised their activities, whilst others did not.

Other late Iron Age and Roman features

The disuse of the cemetery was consistent with the disuse of the neighbouring enclosures and it is probable that both elements were abandoned at the same time in the middle–later part of the 2nd century AD. This is consistent with observations at Puddlehill (Matthews and Warren 1992), Queensway Hall (Mudd 2004) and Court Drive (Edwards 2010), all in or north of Dunstable. There was no evidence for a break of occupation *c.*AD43, when the Roman legions arrived, or *c.*AD61, during the Boudican revolt when *Verulamium* (St Albans) was sacked, and which are both cited as possible causes in the break of settlement at Puddlehill during the 1st century AD (Matthews and Warren 1992, 38-39).

Activity within the enclosures adjacent to the cremation cemetery at Site M1A is hard to define; there was little evidence for charred cereal or cereal processing waste. The survival of charred material elsewhere makes it clear that the absence is not due to preservation conditions and it may be supposed that the fields were perhaps of a pastoral nature. A gradual increase in stray finds, pottery and animal bone into the 2nd century AD indicated that the domestic focus was increasingly closer to the land adjoining the cemetery. Between the beginning of the 1st century BC and the end of the 1st century AD only 61 sherds (747g) were deposited in features, compared with 135 sherds (1,009g) by the middle of the 2nd century AD. However, this quantity of material is far less than would be expected a few metres from habitation and there was little animal bone throughout (52 elements, 175g). In the

late 1st to early 2nd centuries AD burnt material that did not originate from pyre debris was deposited in pits nearby and a number of postholes indicated the possible use of wattled fences. The pits lacked the organic refuse otherwise associated with domestic activity, crop processing or the disposal of animal bedding; they simply seemed to be from clearing vegetation. This clearance was a short lived event and the character of the non-funerary features did not otherwise change significantly.

On the opposite side of the valley the boundary ditches of TWB3, across the south-facing hill slope, produced slightly more material from several individual features that could be directly related to habitation nearby. There was a general absence of late Iron Age material up until the middle of the 1st century AD, by which time the cemetery at Site M1A was entering its second phase of use. Pottery deposition and disposal of animal bone was greater; 167 sherds (2,826g) were deposited in ditches during the 1st century AD, rising to 228 sherds (3,406g) from ditches, pits and gullies in the 2nd century AD. This dropped rapidly thereafter, with only 12 sherds (320g) of 3rd to 4th-century date, and the remaining 27 sherds (506g) being recovered from medieval layers. The animal bone followed the same pattern of disposal as for the pottery, with greater evidence that domestic waste disposal was present. The only evidence for charred cereal grain was from pit M1C[7018], which also contained quern fragments and is thought to be hearth waste. The narrow curving gullies in group M1C[7049], together with the adjacent pits and their moderate to high animal bone content, suggests that these features would have been within fairly close proximity to an area of settlement. The gullies themselves may represent features that would be expected alongside a lower status farmstead of 2nd-century AD date. Aerial photography (RAF/58/2758, April 1959, frame 34) and ceramic building materials close to the southern end of TWB3 suggest a building lay nearby.

Chapter 5

IRON AGE/ROMAN FUNERARY SITES IN THE VALLEY OF THE OUZEL BROOK

This chapter catalogues and discusses both inhumation and cremation burials from Iron Age and Roman contexts in the Ouzel valley, along with their associated grave goods. There were three principal cemetery sites. Late Iron Age/early Roman cremation burials came from Site F and Site H. A smaller number of burials were recovered from Site Q, associated with settlement. Stray human charnel was recovered from non-funerary Iron Age contexts at Sites D and G and a group of charnel material of 4th to 5th-century date came from Site F (Fig 5.1). A Saxon inhumation cemetery from Site H is discussed with the other medieval remains in Chapter 7.

The layout of this chapter has been designed to complement the presentation of burial evidence reported for Sites M1A and M1B found during the M1 Junction 12 improvements (see Chapter 4).

SUMMARY OF THE FUNERARY CHRONOLOGY

None of the settlements or associated boundaries were fully excavated since archaeological mitigation was only conducted where it was required for the scheme. The layout and numbers of burials are therefore only a portion of those that may lie beyond the bounds of the mitigation areas. This is also in common with comparison sites elsewhere in the region, where only a few settlements have been excavated in their entirety or near entirety. Burials have been identified within various settlement contexts, such as cemetery areas and as isolated burials.

There are 47 instances of burial of all periods from the A5–M1 link road, excluding charnel burial pits and disarticulated remains. The Saxon material will be discussed in Chapter 7. No human burial pre-dated the Iron Age. The earliest deposits comprised four instances of disarticulated charnel from non-funerary contexts, with at least three of these dating to the early Iron Age (Sites D and G). In addition to the disarticulated remains there was one middle-late Iron Age inhumation (Site Q), and the latest probable date for its interment tied in with transitional late Iron Age/early Roman urned cremation burials in its proximity.

The vast majority of the human remains dated to the late Iron Age/early Roman period in the 1st centuries BC–AD. There were 35 cremation burials or cremation burial related deposits; ten of these were from Site F, 22 from Site H and three from Site Q. An inventory of late Iron Age/early Roman cremation burials is provided by location and type in Table 5.1. In addition to these, a child inhumation of the 1st century AD was recovered from Site Q.

The remains are compared by site, as well as contrasted with those found elsewhere in Bedfordshire and its adjacent counties. The relatively large quantity of cremation burials and the variability of the burial rites exhibited by the different communities are considered. The cemeteries and isolated burials at Site H have provided the second largest number of cremation burials yet excavated from a single settlement site in Bedfordshire from this period; the largest is from Site M1A (see Chapter 4).

A pit at Site F contained disarticulated charnel representing an incomplete array of elements from at least five individuals, which were radiocarbon dated to the late 4th to early 5th centuries AD.

Chapter 5 periods:

- late Iron Age, 1st century BC to AD0
- pre-conquest, late Iron Age, BC to mid-1st century AD
- post-conquest, early Roman, mid-1st to early 2nd century AD
- post-Roman, late 4th to 5th centuries AD

Fig 5.1 Location of sites where human remains were recovered

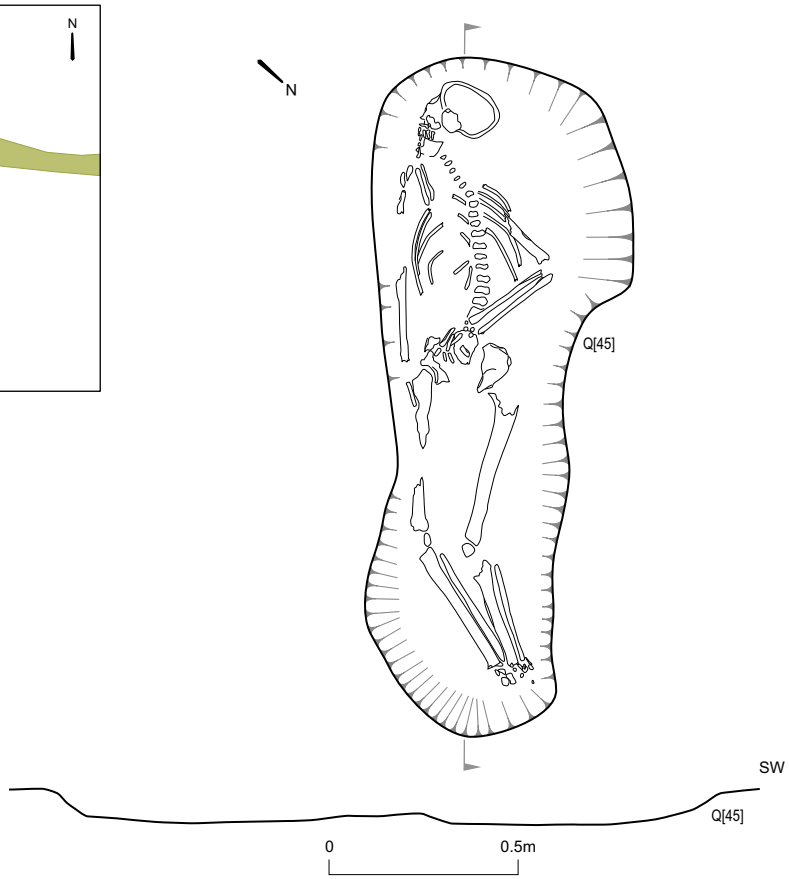
Table 5.1 Inventory of late Iron Age/early Roman cremation burials

Cremation	Date	Type	Depth of deposit (m)	Cremated bone weight (g)	Undisturbed?	Age/sex	Pathology	Vessels	Objects, grave goods	Animal bone deliberately placed
F[221]	early 1st C AD–AD45	5: urned, furnished	0.10	313.8	N	sub-adult	no	one(?)	Colchester brooch, 2 nails	pig joint, other medium
F[225] F[229]	AD10–45	9: urned, unurned, furnished	0.30	752.1	Y	adult	no	two; beaker, jar	iron disc 2 nails	none
F[233]	30BC–AD45	4: urned	0.21	639.8	N	?female adult	calculus	one(?)	none	none
F[237]	30BC–AD45	4: urned	0.10	264.0	N	adult	periosteal lesion	one(?)	nail	none
F[245]	AD10–60	5: urned, furnished	0.10	293.5	N	sub-adult	none	one; beaker/jar	3 rod frags 4 Fe frags	none
F[249]	30BC–AD45	4: urned	0.10	226.5	N	adult	none	one(?)	none	none
F[253]	30BC–AD45	4: urned	0.10	706.1	N	adult	slight osteophytes	one(?)	rod frag	none
F[271]	*c*.30BC–AD70	4: urned	0.10	3.3	N	?	none	jar	none	none
F[320]	30BC–AD45	4: urned	0.14	712.1	N	?female adult	none	one(?)	plate frag 4 nails	?cat mandible
F[348]	AD20–45	6: urned, token urned, furnished	0.30	2261.1	Y	adult(s)	none	ten; 4 butt-beakers, a beaker, a dish, 4 jars	Colchester brooch and spring, rod frag, blade frag, 3 strips, 7 other frags	pig spine
H[81]	?	1: unurned	0.07	129.8	N	?	none	none	none	none
H[83]	45BC–AD75	1: unurned	0.07	532.8	N	adult	none	none	none	none
H[475]	?	1: unurned	0.28	33.8	Y	adult	none	none	none	none
H[477]	LIA+	1: unurned	0.10	350.0	N	sub-adult	none	none	none	none
H[502]	AD45+	1: unurned	0.07	5.1	N	?	none	none	none	none
H[516]	?	1: unurned	0.07	9.1	N	adult	none	none	none	none
H[518]	AD1–70	1: unurned	0.11	61.8	N	adult	none	none	none	none
H[604]	AD55–135	1: unurned	0.22	495.5	Y	adult	none	none	none	none
H[606]	?	1: unurned	0.12	1.7	N	adult	none	none	none	none
H[608]	?	1: unurned	0.18	67.9	N	adult	none	none	none	none
H[610]	?	1: unurned	0.10	188.9	N	adult	none	none	none	none
H[612]	?	1: unurned	0.15	712.5	?Y	? male adult	healed striated lamellar bone; moderate osteophytes	none	none	none
H[614]	30BC–AD45	1: unurned	0.12	87.0	N	adult	none	none	nail	none
H[616]	?	1: unurned	0.04	3.0	N	?	none	none	none	none
H[632]	30BC–AD45	1: unurned	0.17	608.9	?Y	adult	none	none	none	none
H[634]	30BC–AD45	1: unurned	0.27	908.9	Y	adult	dental caries x 2,calculus	none	none	none

Cremation	Date	Type	Depth of deposit (m)	Cremated bone weight (g)	Undisturbed?	Age/sex	Pathology	Vessels	Objects, grave goods	Animal bone deliberately placed
H[636]	?	1: unurned	0.10	917.9	N	adult	healed plaque of lamellar bone	none	none	none
H[642]	AD45+	1: unurned	0.08	14.6	N	?	none	none	none	none
H[644]	AD45–70	1: unurned	0.22	113.2	Y	adult	none	none	none	none
H[646]	AD40–120	5: urned, furnished	0.05	81.8	N	?	periostitis, healed striated lamellar bone	two; beaker, jar	pot mend	none
H[708]	?	1: unurned	0.16	1.2	?Y	?	none	none	none	none
H[3015]	AD20–45	2: ?unurned, furnished	0.10	111.6	N	adult	none	eleven; a butt-beaker, 2 flagons, a jar, a platter, 6 others	none	pig spine
Q[11]	30BC–AD45	5: urned	0.14	881.8	N	adult	none	jar	4 nails	none
Q[15]	LIA–Roman	5: urned	0.13	550.1	N	adult	none	jar	none	none
Q[60]	AD1–70	5: urned	0.03	56.8	N	adult	none	one(?)	none	none

A MIDDLE-LATE IRON AGE INHUMATION FROM SITE Q

A middle-late Iron Age inhumation was found on the Ouzel Brook flood plain, associated with settlement at Site Q.



INHUMATION BURIAL Q[45]

Type: supine, extended
Date: Middle-late Iron Age
Sex: male
Age: adult (at least 46 years of age)
Finds: none

Inhumation burial Q[45] lay directly to the south-west of cremations Q[11] and Q[15] (Fig 5.2). The grave was aligned north-east to south-west, sub-rectangular, slightly irregular, 1.80m by 0.45-0.70m in plan, and 0.10m deep. The sides of the grave were moderate to steep and the base was flat. The skeleton was of a male adult at least 46 years at death. The bone survived poorly with 30% of the skeleton complete. His head was at the south-western side of the grave and he had been laid in a supine extended position, although with legs slightly bent presumably due to the cramped space within the grave cut. His left hand was placed over the pelvis whilst the right arm was extended alongside the right leg. The backfill of the grave was mid grey-brown silty sand. Plant macrofossils were absent except a few goosegrass seeds and a small quantity of charcoal (Fryer 2016, table 66), probably derived from scattered debris, which was accidentally incorporated within the grave fill.

Radiocarbon analysis of a tooth from the skeleton produced a result between 345–320/205–85/75–55 cal BC (95% confidence, 2130±30BP, Beta 446429; Table 5.14). Notably when calibrated at 68% confidence the date range lies entirely within the late-middle Iron Age period and the remaining 32% is outside of that range, suggesting that there is a fair likelihood that this burial precedes the cremation burials by a short period.

Burial Q[45], looking south-west

Fig 5.2 Inhumation burial Q[45]

A late Iron Age/early Roman urned cremation burial cemetery at Site F

The ten cremation burials from Site F were in a dispersed group over a *c.*40sqm area at the midpoint of a north-facing slope overlooking the Flit Valley (Fig 5.3). Two undated four-post structures lay in close proximity to the cemetery; the northern structure lay on the mid-point of slope and the southern structure was positioned upon the valley ridge. These are discussed further in Chapter 6.

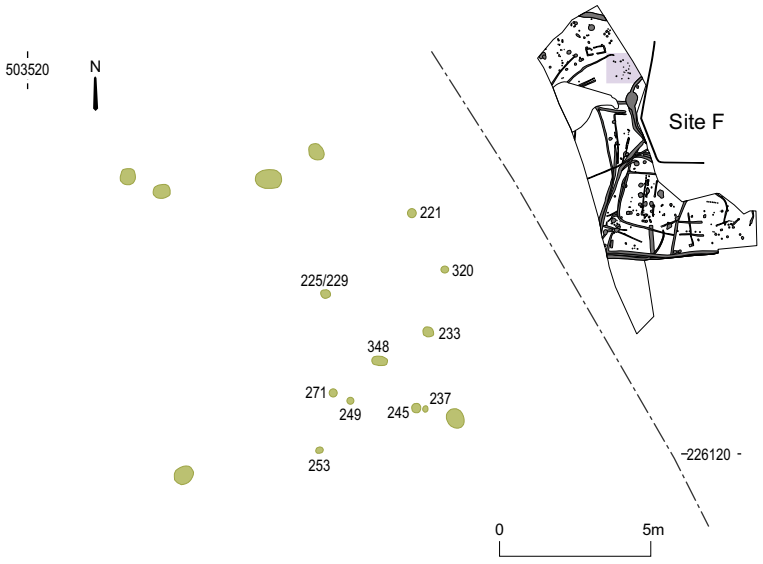


Fig 5.3 The cremation burial cemetery distribution, Site F

The site was heavily used during the medieval era; occasional residual late Iron Age/early Roman pottery sherds suggested that features contemporary to the cemetery were few. The position of the cemetery at Site F lies 480m away from the funerary enclosure at Site H and is slightly north of the projected route of the trackway observed in the post-Conquest reorganisation. No contemporary trackway ditches or other clearly contemporary features were found at Site F to link the route.

Cremation burial F[221]

Type: urned and furnished (Type 5)
Date: early 1st century AD–AD45
Sex: uncertain
Age: sub-adult
Finds: two iron nails, copper-alloy brooch, cinerary urn

This burial at the northern extent of the cemetery group was an urned and furnished cremation burial that had been severely truncated with only the lower extent of the cinerary urn surviving (Fig 5.4). The pit was roughly square in plan, 0.60m wide and 0.10m deep, with moderately sloping sides and a flat base.

The cinerary urn <P157> had been placed in the centre of the pit. This vessel contained the highly fragmented cremated bones (313.8g) of a sub-adult within a medium grey to dark brown silty sand with frequent charcoal flecks F[222]. A copper-alloy brooch <Cu4> was recovered from the top of this deposit. The general backfill, F[220] was light grey silty clay. In the fill there was a single iron nail <Fe96>. Environmental samples produced small quantities of charred wheat grains and legumes together with large quantities of oak charcoal in both the fill of the cinerary urn and the general backfill.

Finds catalogue

<P157> Cinerary urn base, 30BC–AD45. 54 sherds, 317g. E03.

<Cu4> Colchester brooch, copper alloy. Incomplete, part of catch plate missing. Bilateral spring, external chord held by forward facing hook. The wings are small and plain, unadorned bow which has an oval cross-section and tapers to a point. The catch plate has not been perforated. Mackreth's Type 2e (2011, 37), mid/late 1st century AD. Common Colchester type, 50mm long. F[222].

<Fe96> Nails (x2), iron.
Small nail (tack) with flat circular head and square-sectioned shank. Terminal clenched, 20mm long. F[220].
Incomplete nail, terminal of shank missing and head not discernible, 26mm long. F[220].

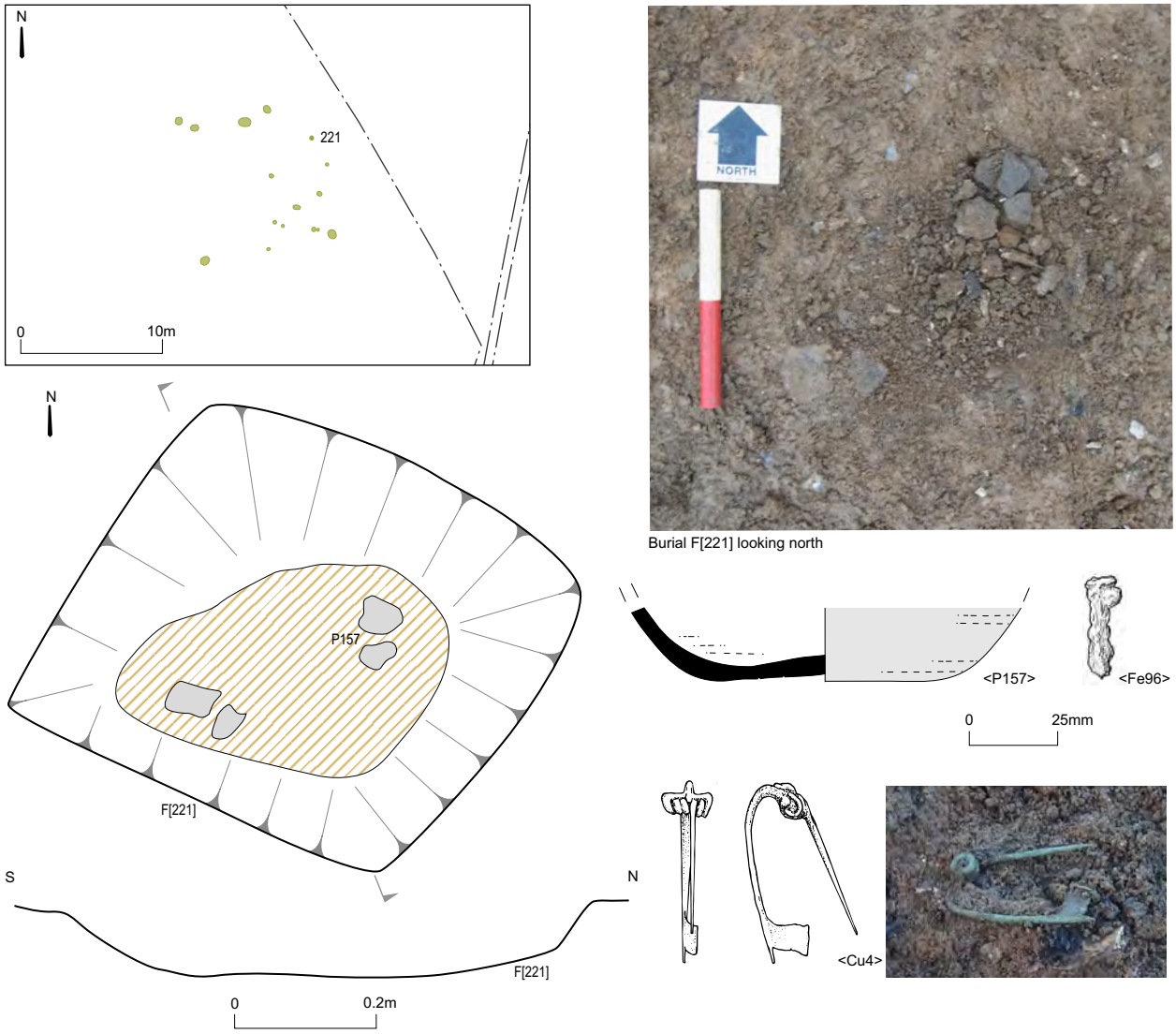


Fig 5.4 Cremation burial F[221]

Cremation burial F[225/229]

Type: urned, unurned and furnished (Type 9)
Date: AD10–45
Sex: uncertain
Age: a single adult?
Finds: pig atlas, vertebrae: unidentifiable medium mammal, five animal bone fragments, two iron nails, iron disc, cinerary urn, accessory vessel and two residual pottery sherds

On the north-west side of the cemetery group, this burial consisted of an urned, unurned and furnished burial in a single grave cut (Fig 5.5). The pit was oval, 0.78m by 0.55m in plan, and 0.30m deep. The pit had moderate sloping sides and a slightly rounded base.

The main cinerary urn <P158> had been placed at the south-eastern end of the pit. This large vessel, although nearly complete, had been heavily compressed. It contained F[226] the very fragmented cremated bones (543.6g) of an adult as well as an iron disc <Fe97>. Inside the urn there were fragments of cattle radius, pig scapular and sheep/goat horncore as well as a cattle mandible (aged 8-18 months) and an intrusive mole bone. Within the basal general fill of the pit F[224] were the highly fragmented cremated bones (208.5g) of an adult human, and a pig metacarpal and ulna fragment.

The accessory vessel <P159> had been placed on the north-west side of the cinerary urn. The deposit within the accessory vessel was sterile light grey silty clay (F[230]). A sheep/goat tooth and a mammal's caudal vertebra were also found in the accessory vessel, presumably as residual material. The grave fill, F[224/228], was light grey silty clay containing late Iron Age pottery and two iron nails <Fe14>. A pig atlas and the caudal vertebrae of a medium mammal were recovered. The atlas second cervical vertebra had been cut suggesting the animal's throat had been slit.

The relatively undisturbed nature of the cremation burial suggests that the significant quantities of cremated bone were deliberately placed in two locations. There is no indication that parts of more than one adult had been buried in this grave.

Finds catalogue

<P158> Rouletted beaker, North Gaul, cinerary urn, AD10–60. 115 sherds, 658g. W16.

<P159> Jar with outward curving neck everted triangular in section rim with cordon below (Thompson 1982, B3-2, no 15). Almost complete vessel, 30BC–AD45. 203 sherds, 840g. E01.

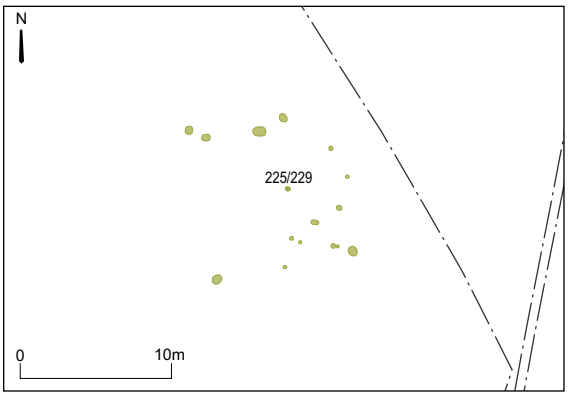
<P160> A wheelmade oxidised grog tempered necked jar with cordon below (Thompson 1982, B3-6), AD1–70. 2 sherds, 25g. E01. Not illustrated.

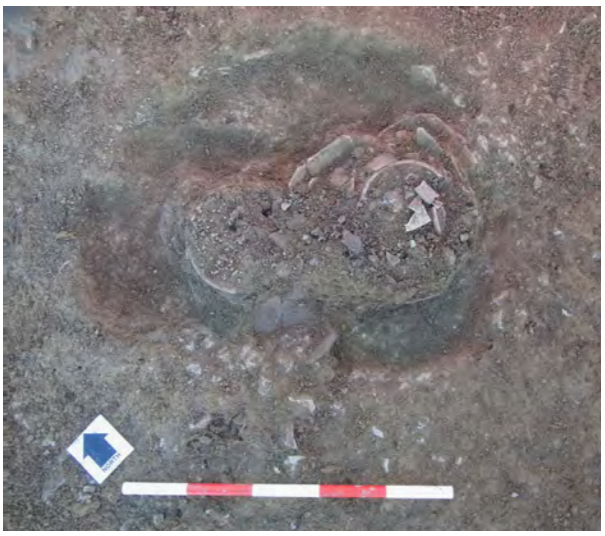
<Fe14> Nails (x2), iron.

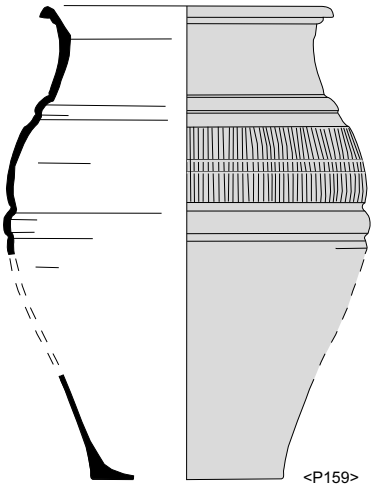
(1) Flat sub-circular head with square-sectioned shank, incomplete, terminal of shank missing, 39mm long. F[224].

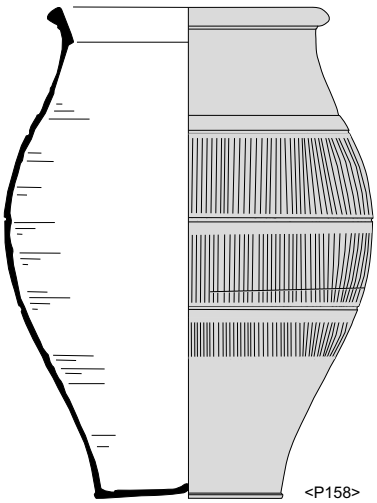
(2) Shank fragment, 30mm long. F[224].

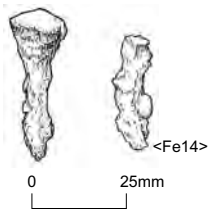
<Fe97> Perforated disc, iron. Complete, 87mm in diameter and *c.*7mm thick. Actual position in grave unknown. Circular with a centrally placed perforation *c.*9mm in diameter, however, the X-ray suggests that it retains the remains of a tubular fitting or internal collar and the actual perforation was *c.*13mm in diameter. The fitting or collar protrudes slightly beyond the surface of the disc. The surfaces of the disc converge towards the outside edge, forming a possible cutting edge, and there are two intersecting U-shaped notches, which together are *c.*30x10mm in size. F[226].

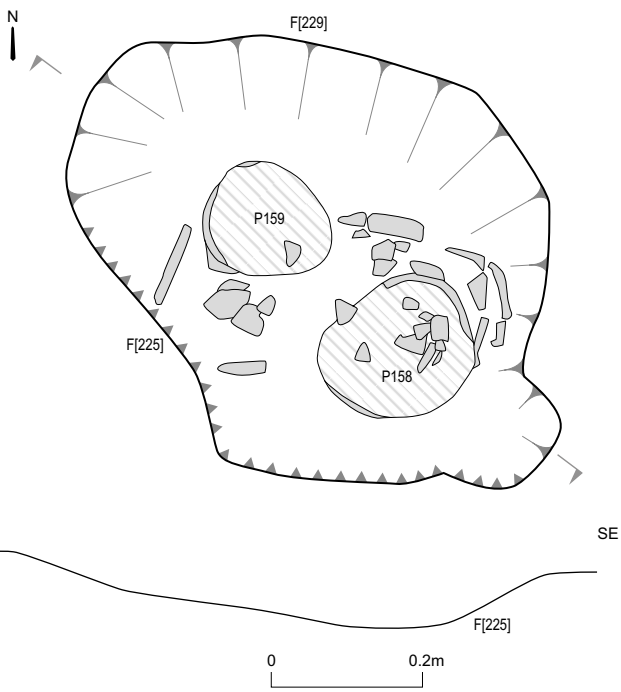


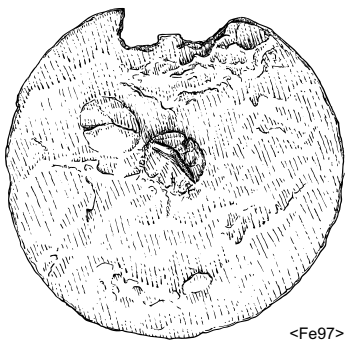

Burial F[225]/[229] looking north-west











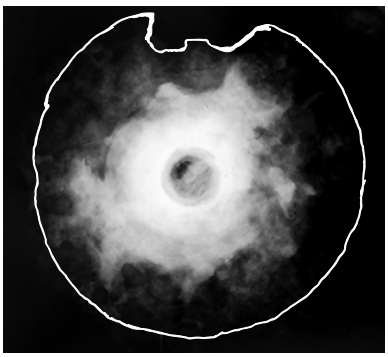


Fig 5.5 Cremation burial F[225/229]

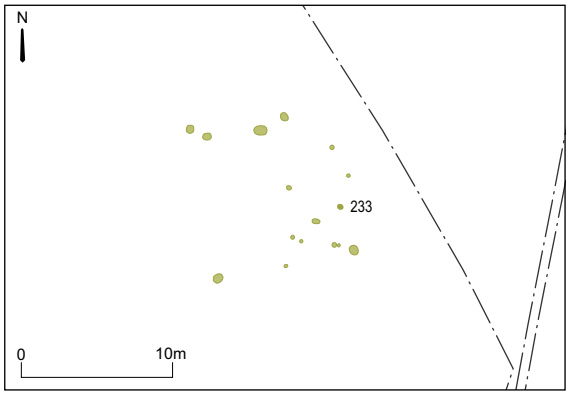
Cremation burial F[233]

Type: urned (Type 4)
Date: 30BC–AD45
Sex: probable female
Age: 26-45 years old
Finds: cinerary urn only

On the east side of the cemetery group, this was an urned burial, heavily truncated with only the lower half of the cinerary urn surviving (Fig 5.6). The pit was oval, 0.53m by 0.45m in plan, and 0.21m deep with asymmetrical sides and a flat base.

The cinerary urn <P161> had been placed in the centre of the pit and contained the fragmented cremated bones (639.8g) of a probable female, aged 26-45 years old, with some pathology (calculus). These bones were in mid grey silty clay deposit with frequent charcoal flecks overlain by mid grey silty clay grave fill.

Finds catalogue
<P161> Flagon, possibly pierced base and perhaps ritually broken, cinerary urn, 30BC–AD45. 79 sherds, 966g. E21.



Burial F[233] looking north

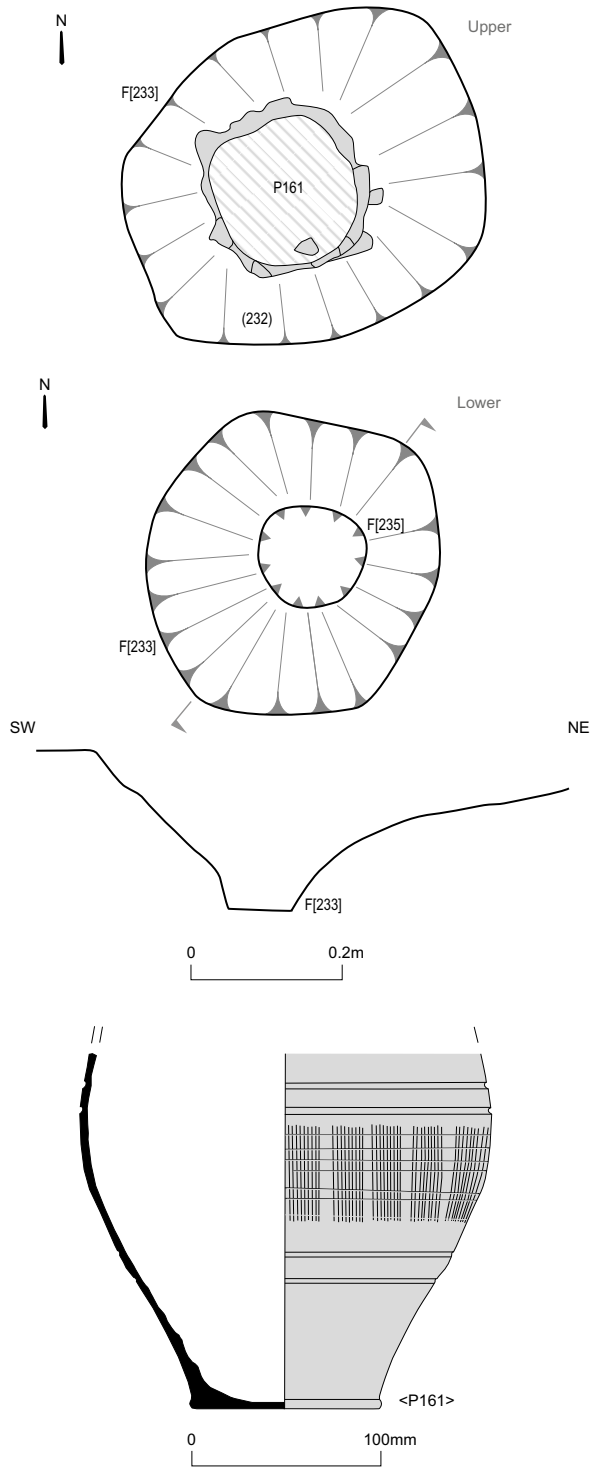


Fig 5.6 Cremation burial F[233]

Cremation burial F[237]

Type: urned (Type 4)
Date: 30BC–AD45
Sex: uncertain
Age: adult
Finds: animal bone fragment, a nail, cinerary urn and two pottery sherds

In the south of the cemetery group, the cinerary urn was in a fragmentary condition due to plough damage (Fig 5.7). The pit was an irregular oval, 0.85m by 0.50m in plan, and 0.10m deep. Very gentle sloping edges along the north-western to south-eastern sides dropped to a sudden vertical cut where the cinerary vessel <P162> was located in the south-western extent of the pit. This vessel contained the highly fragmented cremated bones (264.0g) of an adult with a possible periosteal lesion. The cremated bones were within mid grey silty clay that contained frequent oak charcoal (F[238]). A sheep/goat astragalus and a tooth were also recovered from within the vessel. The grave fill, F[236], was a mid grey silty clay, which contained two small late Iron Age pottery sherds (11g), a nail <Fe24> and a sheep/goat tooth.

Finds catalogue
<P162> Flagon, cinerary urn, 30BC–AD45. 44 sherds, 1,987g. E21.
<Fe24> Nail, iron. Incomplete, terminal of shank missing. 'Trapezoid' head, 12x6x7mm with square-sectioned shank, 25mm long.

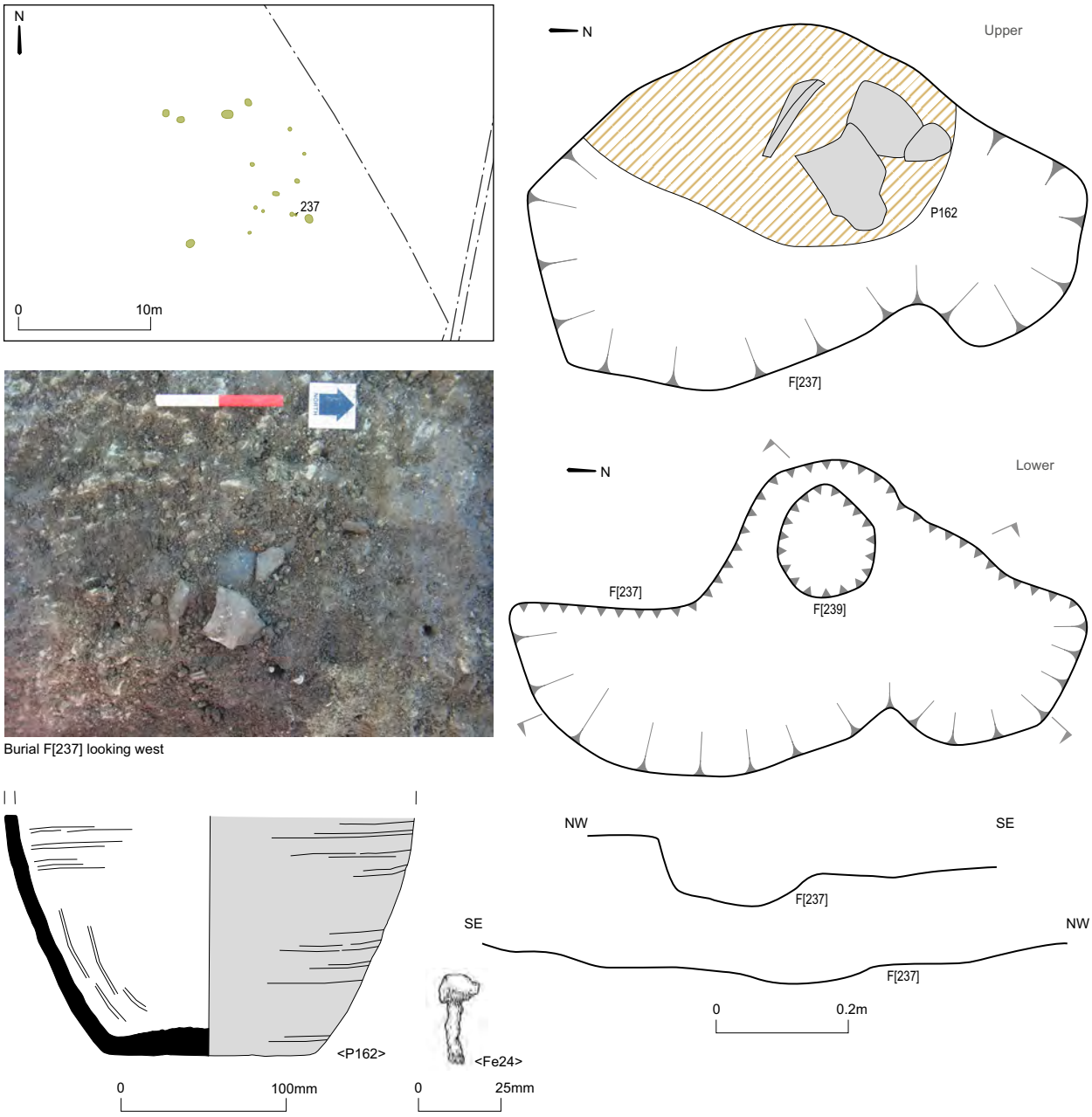
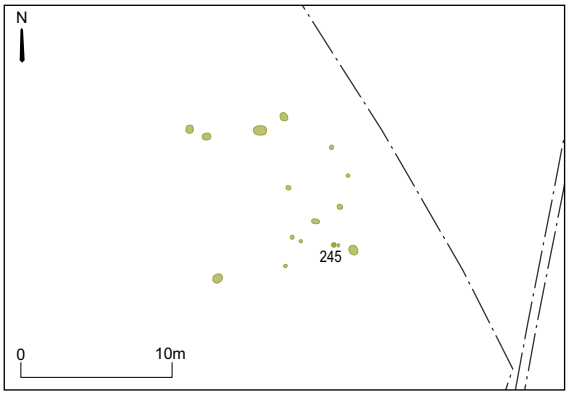


Fig 5.7 Cremation burial F[237]



Burial F[245] looking north

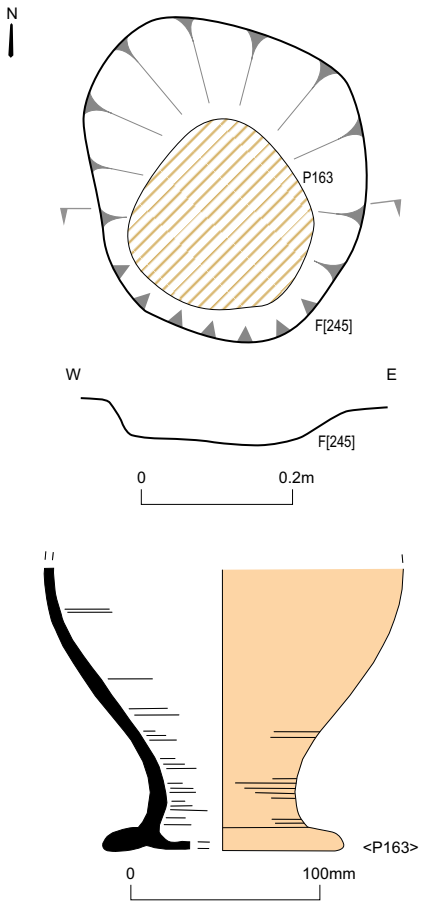


Fig 5.8 Cremation burial F[245]

CREMATION BURIAL F[245]

Type: urned and furnished (Type 5)
Date: AD10–60
Sex: uncertain
Age: sub-adult
Finds: three iron rod fragments, four undiagnostic iron fragments, cinerary urn and four residual pottery sherds

This urned and furnished burial, adjacent and to the west of cremation burial F[237] within the south of the cemetery group, had suffered plough damage (Fig 5.8). The pit was circular in plan, 0.20m in diameter and 0.10m deep. It had steep to near vertical sides and a flattish base, sloped slightly downwards to the north. The cinerary vessel <P163> was placed at the western side of the pit and contained the cremated bones (293.5g), exhibiting U-shaped fractures and fissures, of a sub-adult along with frequent oak charcoal, F[246]. In the urn were two iron shanks, <Fe98>, <Fe99>, with the former fused to the bone; there was also iron staining on some fragments. It is proposed that the iron shanks may have come from a wooden box. The grave fill was mid grey-brown silty clay which contained four small late Iron Age pottery sherds <P164> (13g).

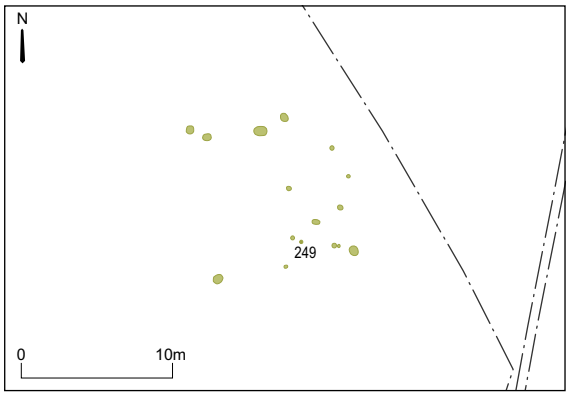
Finds catalogue

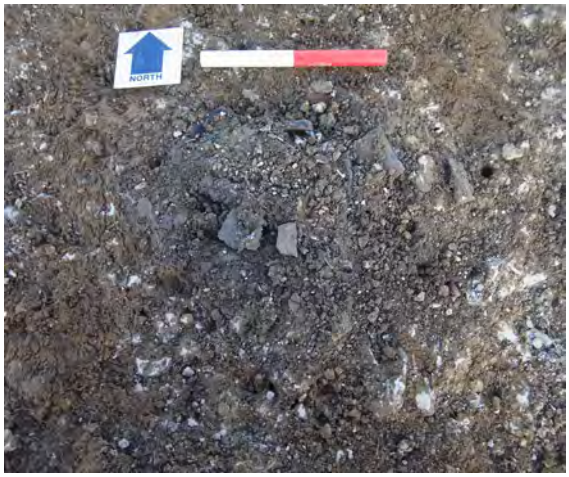
<P163> A beaker or jar pedestal base, base and body sherds, cinerary urn, AD10–45. 65 sherds, 725g. E03.

<P164> Body sherds, 30BC–AD45. 4 sherds, 13g. E011. Not illustrated.

<Fe98> Iron rod fragments (x3), fused with bone, two are 15mm and 20mm long and may join to form a nail shank. F[246]. Not illustrated.

<Fe99> Iron fragments (x4), two join to form a circular-sectioned rod fragment, *c.*40mm long and 4mm in diameter. F[246]. Not illustrated.





Burial F[249] looking north

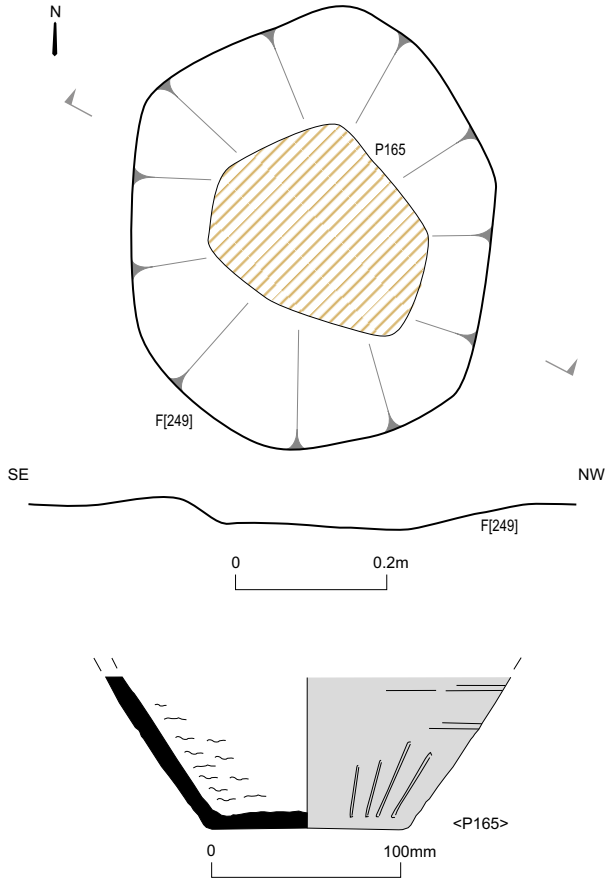


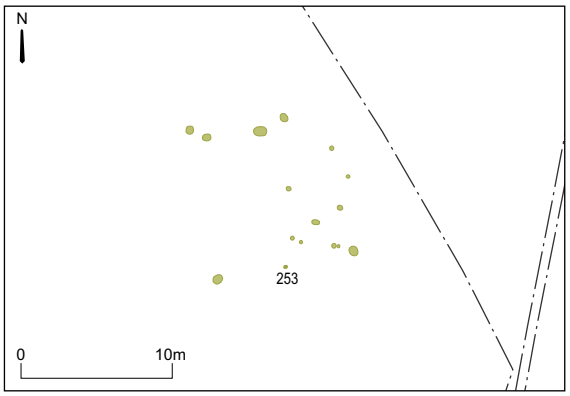
Fig 5.9 Cremation burial F[249]

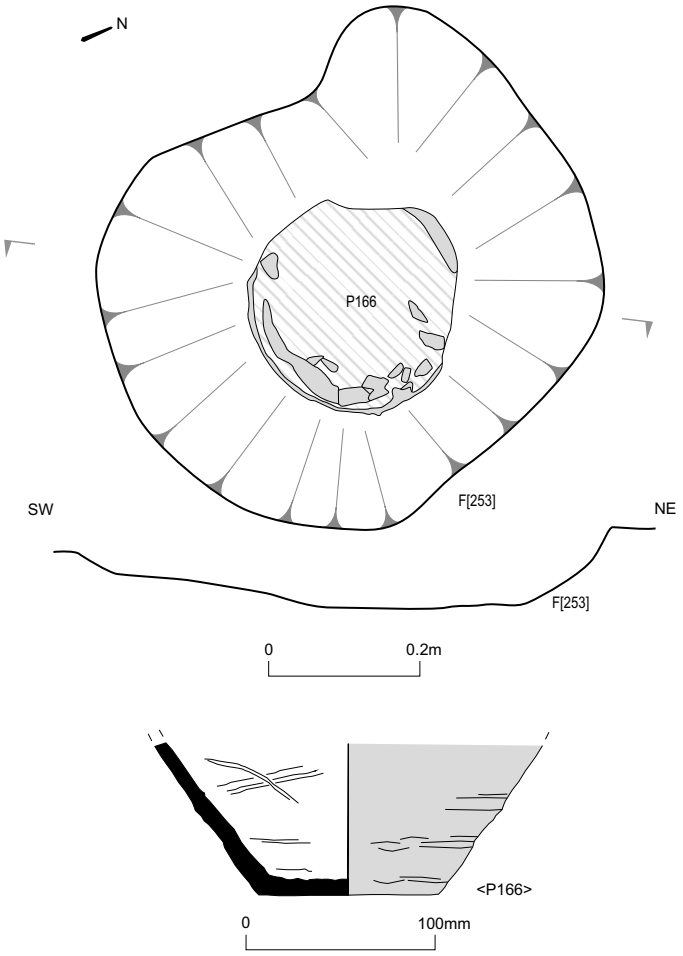
CREMATION BURIAL F[249]

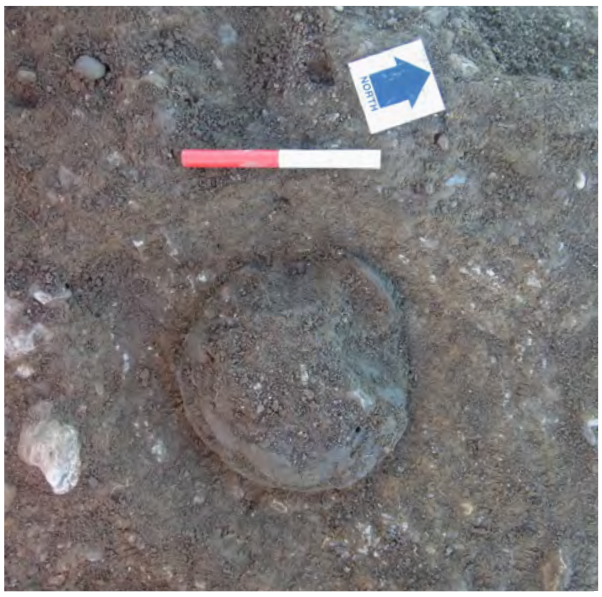
Type: urned (Type 4)
Date: 30BC–AD45
Sex: uncertain
Age: adult
Finds: cinerary urn only

Adjacent and to the east of cremation burial F[245], within the south of the cemetery group, this urned burial had suffered significant truncation (Fig 5.9). The pit was circular in plan, 0.60m in diameter and 0.10m deep, with gentle sloping sides and a flat base. The cinerary vessel <P165> was placed in the centre of the pit and contained the highly fragmented cremated bones (226.5g) of an adult with frequent charcoal. The grave fill was a mid grey-brown silty clay.

Finds catalogue
<P165> Sooted base, cinerary urn, 30BC–AD45. 21 sherds, 408g. E01.







Burial F[253] looking west

Fig 5.10 Cremation burial F[253]

CREMATION BURIAL F[253]

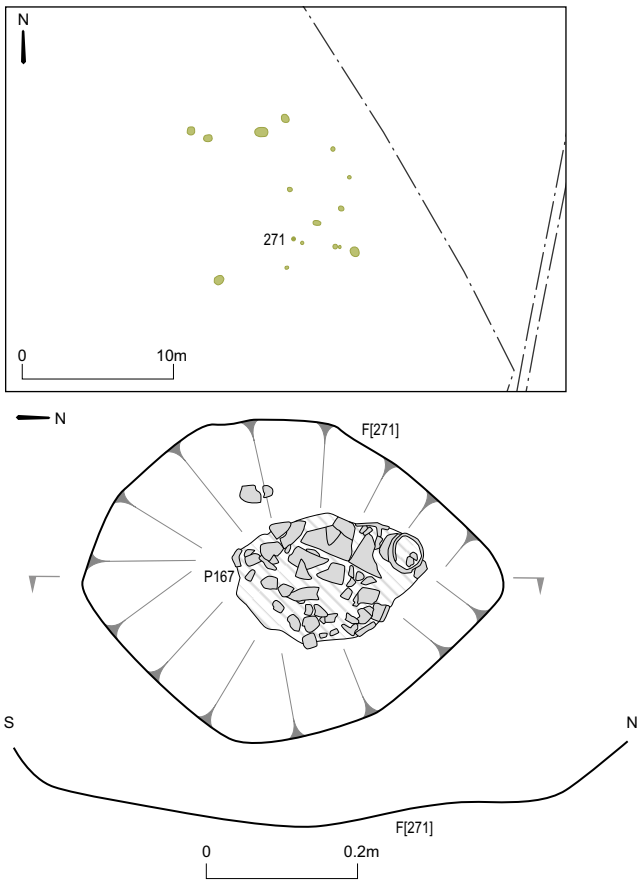
Type: urned (Type 4)
Date: 30BC–AD45
Sex: uncertain
Age: adult
Finds: iron rod, cinerary urn

At the southernmost part of the cemetery, this was an urned burial with significant truncation (Fig 5.10). The pit was sub-circular in plan, 0.70m in diameter and 0.10m deep, with gentle sloping sides and a flat base. The cinerary vessel <P166> was placed in the centre of the pit, and contained the very fragmented cremated bones (706.1g) of an adult with very slight osteophytes, and frequent charcoal. The grave fill, F[252], was mid grey-brown silty clay and produced an iron rod <Fe3>.

Finds catalogue

<P166> Base of cinerary urn, 30BC–AD45. 17 sherds, 707g. E01.

<Fe3> Rod, iron. Incomplete terminals missing. Expanded central section, 40mm long, with parallel-sides and circular cross-section, 7.5mm in diameter. Broken terminals tapered. F[252]. Not illustrated.



Burial F[271] looking west

Fig 5.11 Cremation burial F[271]

CREMATION BURIAL F[271]

Type: urned (Type 4)
Date: *c.*30BC – AD70
Sex: uncertain
Age: uncertain
Finds: cinerary urn only

In the southern part of the cemetery, this urned burial had been severely truncated (Fig 5.11). The pit was oval, 0.55m by 0.41m in plan and 0.10m deep with gentle sloping sides and an uneven base. The cinerary vessel <P167> was placed in the centre of the pit containing the cremated bones (3.3g) of an undetermined individual, frequent charcoal, a sheep radius and a pig vertebra (F[272]). The lack of bone is due to the truncation of the urn. The grave fill was mid grey-brown silty clay.

Finds catalogue

<P167> Jar with everted outward curving rim beaded at the tip (Thompson B1-1). Cinerary urn (now missing) partly identified from photographs, probably *c.*30BC–AD70. Not illustrated.

Cremation burial F[320]

Type: urned (Type 4)
Date: 30BC–AD45
Sex: probable female
Age: adult
Finds: cat mandible, four nails, one iron plate fragment, cinerary urn, a beaker within the cinerary urn, and 12 other sherds in the grave fill

On the east side of the cemetery and cutting pit F[326], there was an urned burial with moderate plough damage (Fig 5.12). The pit was sub-circular, 0.75m by 0.72m in plan and 0.14m deep, with steep sloping sides and a rounded base. The cinerary vessel <P168> was placed in the centre of the pit and contained the highly fragmented cremated bones (712.1g; F[321]) of a probable female adult and an iron nail <Fe12>. Also in the urn was a cat mandible with a cut mark where it had possibly been skinned. The grave fill, F[319], was slightly orangey mid grey-brown clay silt containing an iron plate fragment <Fe16> and three nails <Fe15, 17-18>. In addition there were 12 sherds of pottery <P170> (20g) and some sheep/goat teeth. The charcoal came from a mixture of beech, oak, alder and hawthorn.

Finds catalogue

<P168> Base of cinerary urn, 30BC–AD45. 58 sherds, 828g. E03.
<P169> Beaker, pedestal base, 30BC–AD45. 15 sherds, 69g. E21.
<P170> Pottery. 12 sherds, 20g. E13. F[319]. Not illustrated.
<Fe12> Nail, iron. Complete. Flat sub-circular head with square-sectioned shank. Clenched terminal, 37mm long. F[321].
<Fe15> Nail, iron. Incomplete, fragment of shank only, 43mm long. F[319]. Not illustrated.
<Fe16> Curved plate, iron. Tapered, rounded plate with curved profile, 60mm long, 17-22mm width. F[319].
<Fe17> Nail, iron. Incomplete, head missing, square-sectioned shank tapered to a point, 57mm long. F[319].
<Fe18> Nail, iron. Incomplete, flat sub-circular head with square-sectioned shank, 34mm long, 15mm diameter head. F[319].

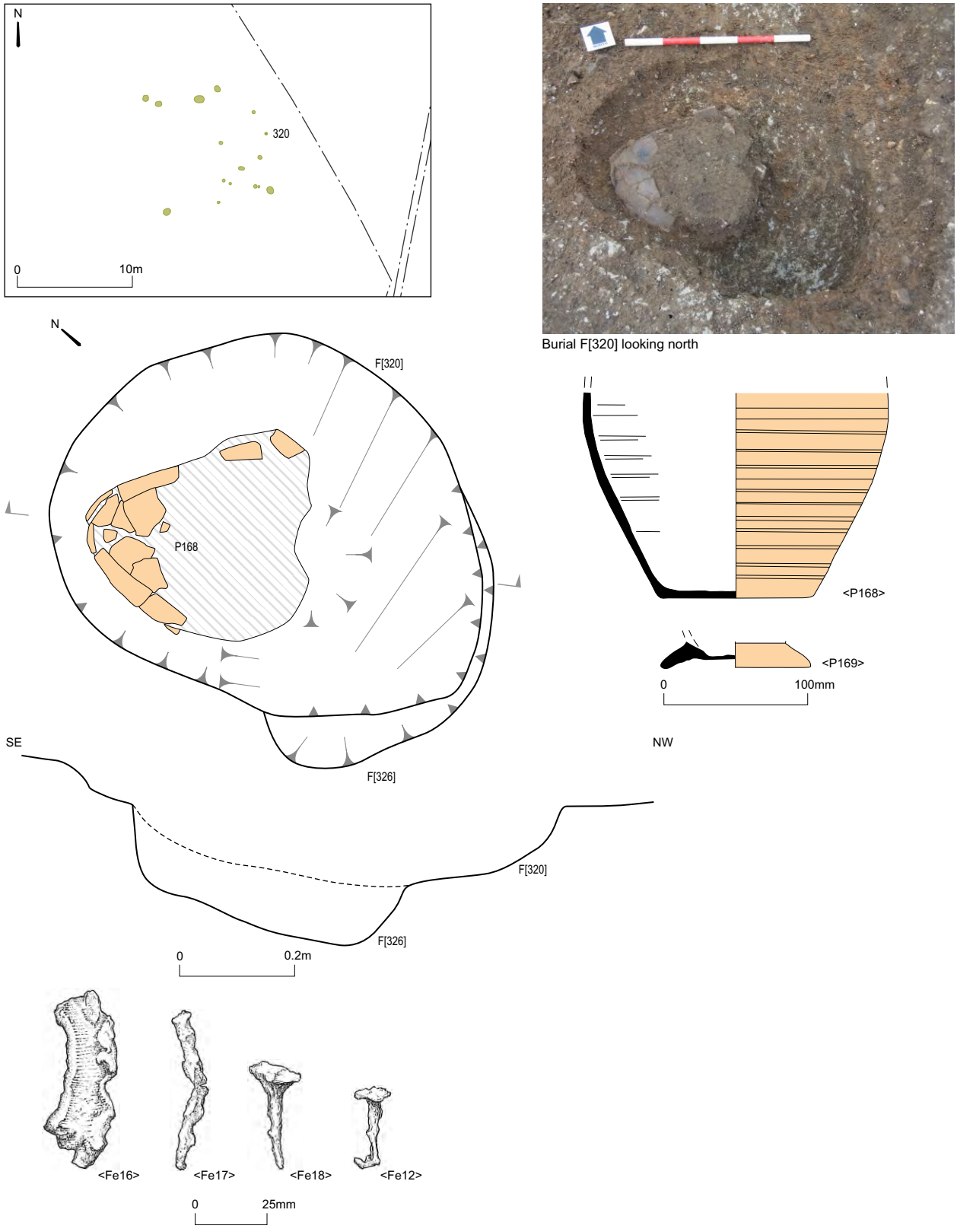


Fig 5.12 Cremation burial F[320]

Cremation burial F[348]

Type: urned, token urned and furnished (Type 6)
Date: AD20–45
Sex: uncertain
Age: adult(s)
Finds: sheep spine, copper-alloy brooch, brooch pin, iron blade, iron rod, nine iron fragments including strips, at least five cinerary urns and an accessory vessel, many other sherds

In the middle of the cemetery, this was the largest burial in size and by quantity of grave goods (Figs 5.13, 5.14 and 5.15). The grave contained an urned, token urned and furnished burial, comprising seemingly at least five cinerary vessels and at least one accessory vessel, with *c.*10 vessels in total. The burial had suffered little truncation and was in good condition. The pit was oval, 0.79m by 0.55m in plan, and stepped with the western half shallower than the eastern area. The main pit was 0.40m wide and up to 0.55m deep, with steep sloping sides and a flat base. There was a stratigraphic sequence in the placing of the pottery vessels.

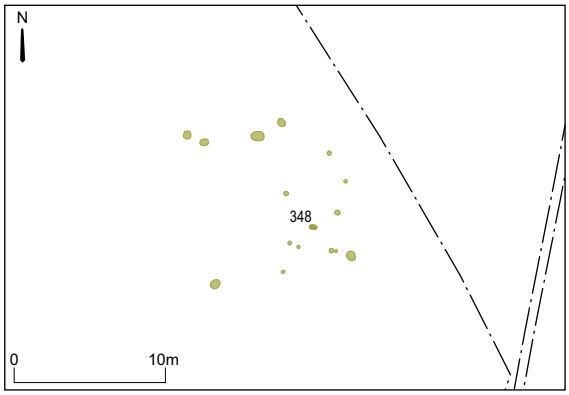
Three vessels; <P171>, <P172>, and <P173> had been placed on the deep eastern side of the pit with the former at the south-western edge, <P172> at the eastern edge and the latter adjacent to the north-west. Cinerary urn <P172> contained very fragmented cremated bones (998.3g; F[357]) with U-shaped fissures present throughout that belonged to an adult, and a copper-alloy brooch pin <Cu102>. Another possible cinerary vessel, <P171>, contained a token or accidental deposit of cremated bone (2.5g; F[355]) of an adult with iron fragments. Within the accessory vessel <P173> there was a speck of cremated bone (0.1g; F[394]) from an adult. The articulated thoracic and cervical vertebrae, sternum, humerus, radius and rib from a single sheep were placed along the inner edge of the deeper eastern side of the pit. The vertebrae have unfused plates and as the other elements are unfused or fusing the sheep would have been 10-36 months at death.

Overlying the three pottery vessels (<P171>, <P172>, and <P173>) were cinerary urns <P174> and <P175> placed at the same level. Small quantities of cremated bone were retrieved from the vessels; <P175>, 5.4g; F[351], and <P174>, 64.2.g; F[353]. Further sherds <P176-186> lay at the same level; these were thought to be a single vessel but when analysed were from five different vessels with other residual sherds. Amongst these was a copper-alloy brooch <Cu28> F[349] and 1,190.6g of very fragmented human bone but it is uncertain which of the five vessels might have been the urn. A dog canine, a sheep premolar and a sheep metapodial fragment were also recovered.

The grave fill, F[347], was dark grey-brown sandy clay containing five iron objects; a rod, a knife blade and three fragments. The knife blade <Fe26> lay directly to the north of urn <P175>, near the northern edge of the pit.

The burial was in good condition and the dispersed nature of the cremated remains within various vessels strongly suggests this had been a deliberate act. The adult cremated bone collectively weighed 2,261.1g. No duplicate elements could be found, however, given the quantity it is extremely likely that more than one individual was present.

Finds catalogue
<P171> Jar, complete profile, cinerary urn, 30BC–AD45. 85 sherds, 595g. E16/7.
<P172> Butt beaker, Cam 115, complete profile, cinerary urn, 30BC–AD45. 44 sherds, 1,838g. E211.
<P173> A complete handmade grog tempered small biconical necked jar with cordon shoulder and beaded rim (Thompson 1982, B1-3, no 2-3). Accessory vessel, 30BC–AD45. 1 sherd, 335g. E011.
<P174> Dish, ring base, complete profile, cinerary urn, AD20–45. 26 sherds, 539g. E141/.
<P175> North Gaulish whiteware butt beaker, base deliberately drilled, almost complete, cinerary urn, AD10–60. 41 sherds, 299g. W16.
<P176-186> Probably comprised five vessels (with three illustrated):
<P176> Butt beaker with a cordoned shoulder above rouletted zone and cordon beneath, rather globular with a triangular beaded rising rim (Thompson 1982, G5-2), almost complete, AD1–70. 5 sherds, 219g. E141.
<P177> Butt beaker, Cam 115, complete profile, 30BC–AD45. 62 sherds, 970g. E211.
<P178> Beaker, almost complete, AD10–65. 1 sherd, 231g. E24.
<P179> Jar, handmade oxidised grog tempered necked jar with cordon at base of neck and beaded rim (Thomson 1982, B3-5), 30BC–AD45. 17 sherds, 545g. E011
<P180> Jar, body. 40 sherds, 207g. E02.



Burial 348 looking west

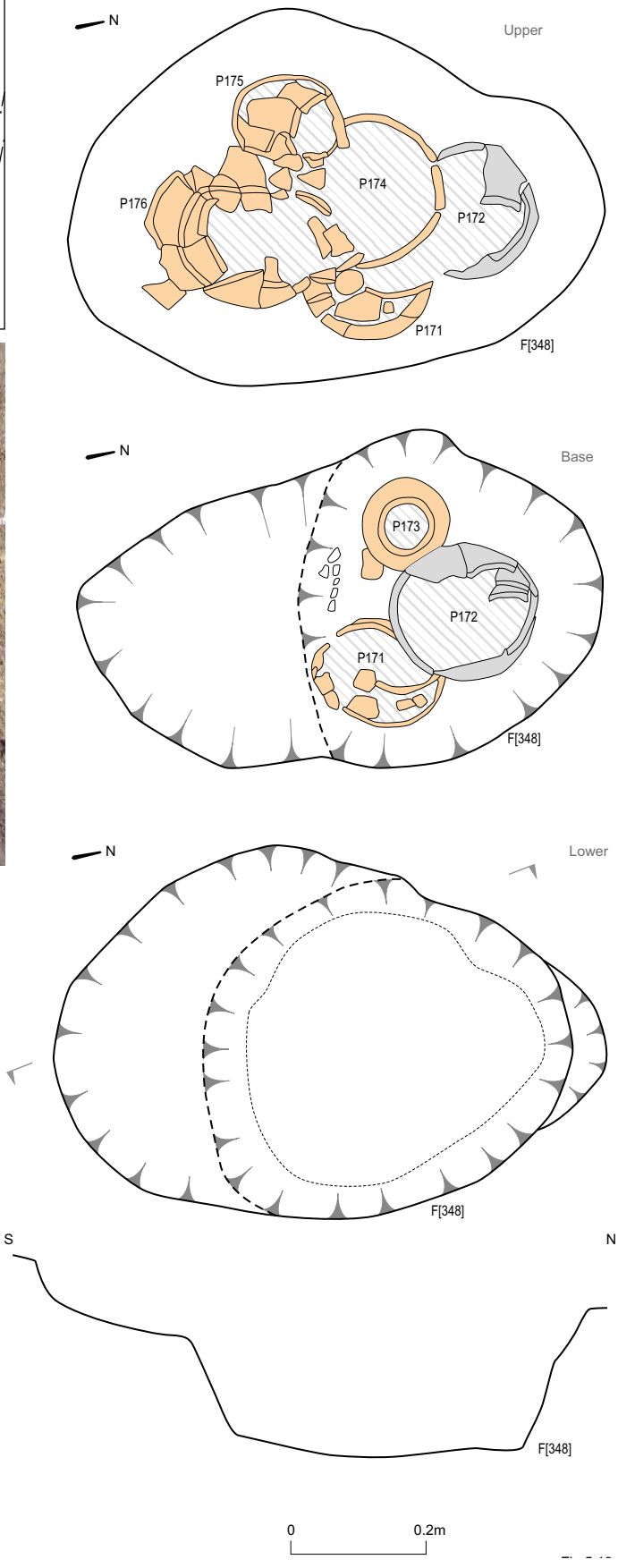
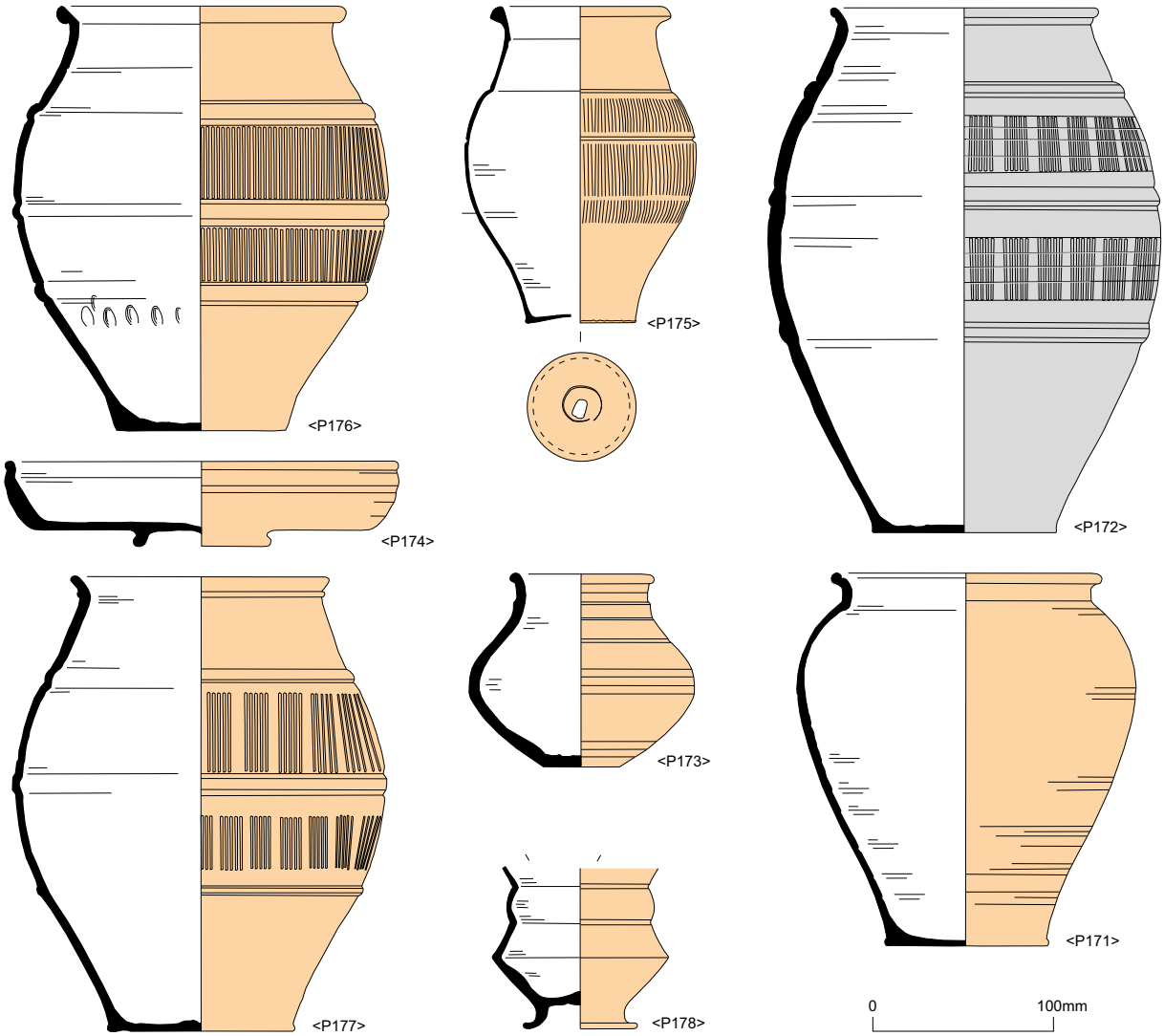


Fig 5.13 Cremation burial F[348]




Burial 348 looking east


Burial 348 looking west

Fig 5.14 Cremation burial F[348] Accessory and cremation vessels

Other sherds (not illustrated):

<P181> Butt beaker, beaded everted rim (Thompson 1982, G5-4), 30BC–AD45. 1 sherd, 9g. E12.

<P182> Jar, 30BC–AD45. 5 sherds, 29g. E14.

<P183> Jar (1 sherd, 6g). E14.

<P184> Jar or beaker rim without splaying wall and bead rim (possibly as Thompson 1982, B1-1, no 4). 2 sherds, 13g. E14.

<P185> A handmade sand tempered jar with an everted out curving rim with beaded undercut rim (Thompson 1982, B1-1, no 4). 3 sherds, 18g. E141.

<P186> Further 32 body sherds, 320g, and 1 base sherd, 59g.

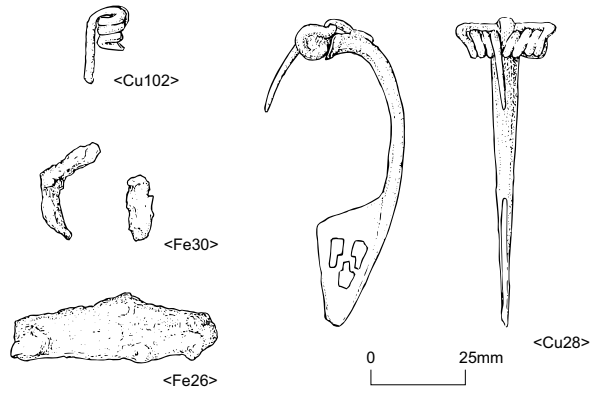


Fig 5.15 Cremation burial F[348] Metal finds

<Fe25> Rod fragment, iron. Incomplete, both terminals missing. Rectangular-sectioned fragment, 4x2mm, expanding slightly towards one end, 4x3mm, 18mm long. F[347]. Not illustrated.

<Fe26> Blade from small ?knife, iron. Incomplete, blade only. Back of blade horizontal and cutting-edge curves to tip, 52mm long, 15mm wide, 3mm thick. F[347].

<Fe27> Iron fragments (x4):
Two rectangular cross-sectioned strips with tapered terminals. Possibly join to form a U-shaped staple, *c.*25mm long and 15mm wide. F[347].
Rectangular sectioned strip, 15x7mm. F[347].
Tapered terminal forged or bent at right angles, 22x5mm, either from a nail or staple. F[347]. Not illustrated.

<Fe30> Iron fragments (x3):
Two rectangular cross-sectioned strips, join to form part of a U-shaped staple, *c.*21mm long. F[347].
Rectangular-sectioned strip, *c.*16x4mm. F[347].

<Fe31> Strip fragments (x3), iron. Parallel-sided with D-shaped cross-section, up to 20mm long. F[355]. Not illustrated.

<Fe101> Fragment, iron. Unidentifiable fragment of sheet metal, 12x4mm. F[347]. Not illustrated.

<Cu28> Colchester brooch, copper alloy. Incomplete, part of catch plate and pin missing. Bilateral spring of eight coils, external chord held by a forward facing hook which runs for a short distance along the head of the bow. Transverse groove decoration on the wings. Plain bow with octagonal cross-section, tapers to a pointed foot. Neatly fretted catch-plate, 80mm long. Type 2.a. (Mackreth 2011), mid 1st century AD.

<Cu102> Brooch spring, copper alloy. Incomplete, fragment only. Three coils with an external chord from a Colchester Type brooch. F[357].

A LATE IRON AGE/EARLY ROMAN PYRE SITE AND UNURNED CREMATIONS AT SITE H

There were 22 cremation burials from Site H with 14 of these, including three *busta*, enclosed within a *c.*1,470sqm sub-rectangular enclosure (Fig 5.16). Two further *busta* or pyre burials, and three cremation burials lay immediately outside the enclosure, with the remaining four more widely dispersed.

The enclosure was situated upon a plateau with the natural topography sloping down swiftly to the north into the Flit valley. The eastern and southern sides slope gradually towards the River Lea and to the south-west towards the Ouzel Brook. The enclosure boundaries are described in Chapter 6. The interior was largely devoid of features except for burials, *busta,* and a couple of postholes.

A *bustum* is a Type 1 unurned burial (see Chapter 4) but *bustum* refers specifically to the elongated gully-like pit that sat below the pyre, possibly as a flue to circulate airflow, and where pyre debris and some of the cremated remains collected. In many cases, some of the cremated bone may have been gathered from the pit for burial elsewhere, but where left in the *bustum* these may not have been an intentional interment.

Two features lay outside the enclosure to the east, H[475] and H[644]. One cremation burial, H[642], cut the eastern enclosure ditch and a further three lay outside adjacent to ditch, suggesting some migration of the funerary focus after dispensing with the function of the enclosure. The funerary site was probably the focus of trackways between independent enclosures until these were adapted into field systems after the Conquest. Occasional single pottery sherds occurred, which are thought to be residual from the late-middle and pre-Roman late Iron Age.

Isolated cremation burials lay *c.*50m and *c.*100m respectively to the north, H[708] and H[3015]. A pair of cremation burials, H[81] and H[83], lay *c.*100m to the east. These were all positioned within the bounds of contemporary enclosures, but were clearly removed from the main funerary site.

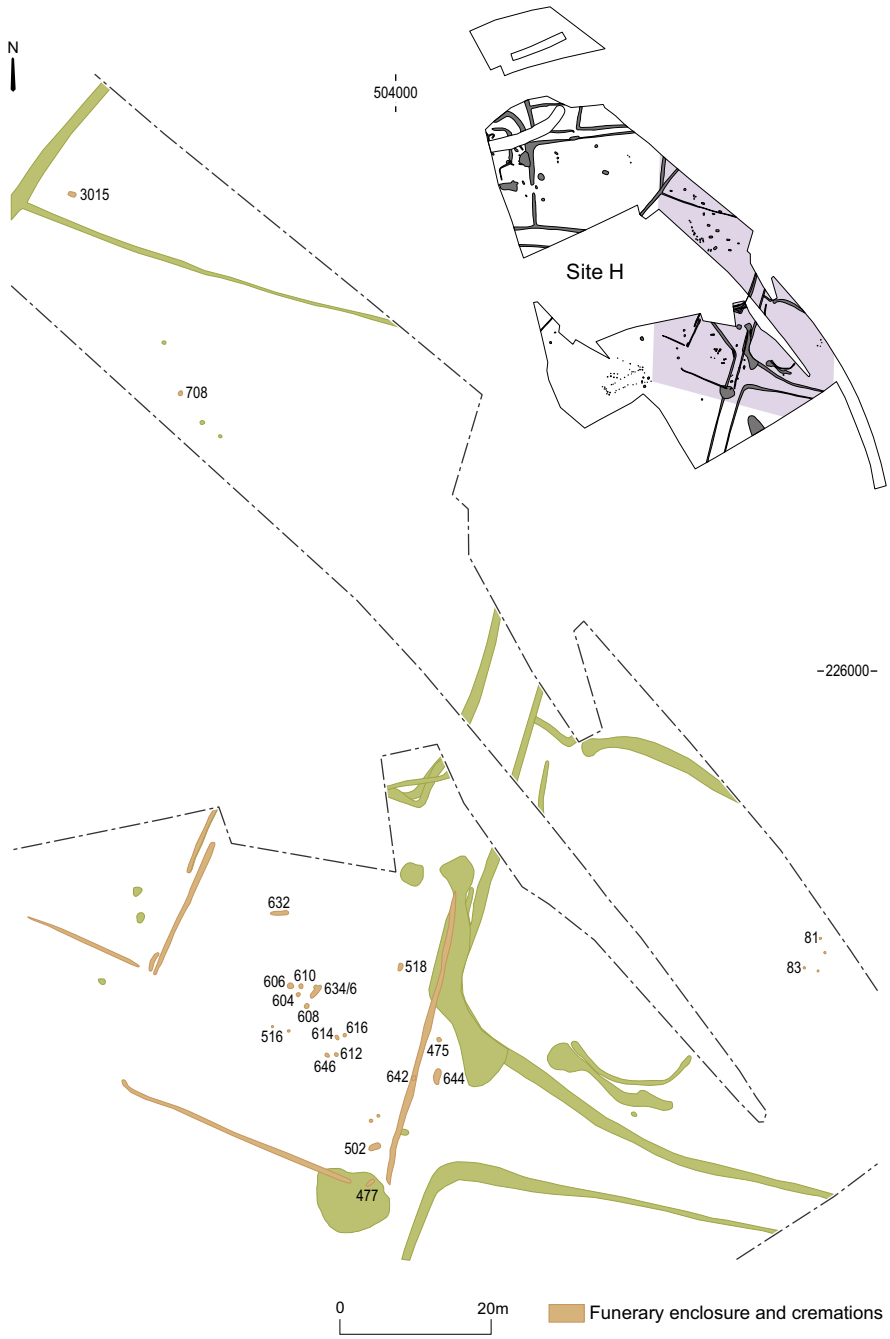
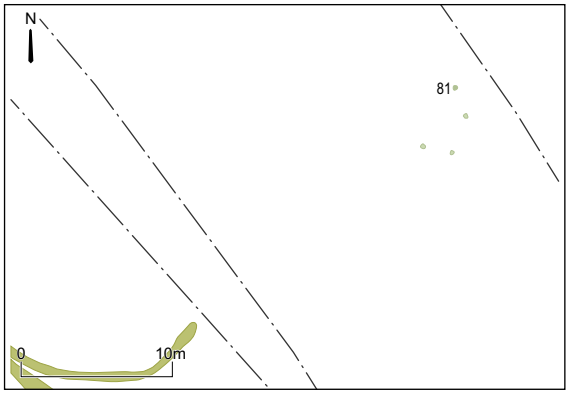
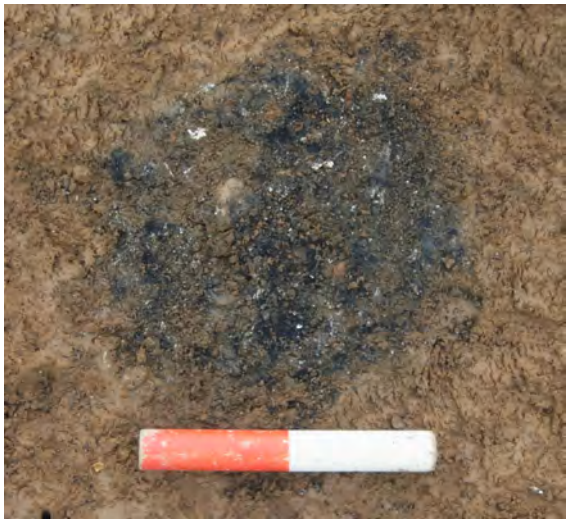


Fig 5.16 Locations of funerary features at Site H





Cremation H[81], pre-excavation, looking west

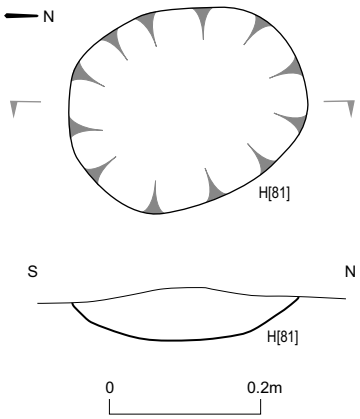
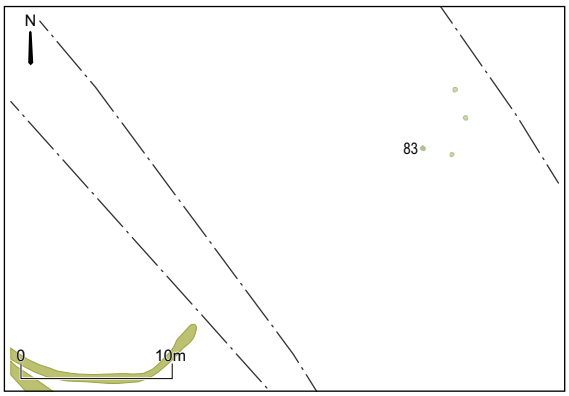


Fig 5.17 Cremation burial H[81]

CREMATION BURIAL H[81]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: uncertain
Finds: none

This unurned cremation burial at the eastern extent of Site H was severely truncated (Fig 5.17). The pit was circular in plan, 0.30m in diameter and 0.07m deep, with shallow sloping sides and a slightly rounded base. The fill was dark black-brown clay silt with frequent oak charcoal and occasional pebbles. It was not possible to determine the age or sex from the highly fragmented cremated bone (129.8g).



Cremation H[83] pre-excavation, looking west

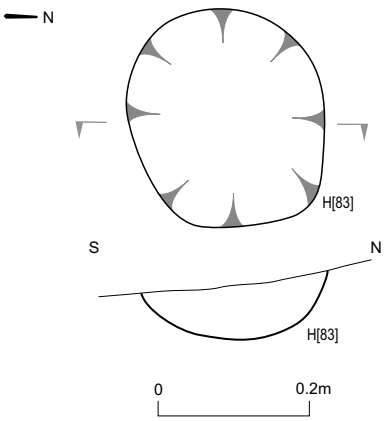
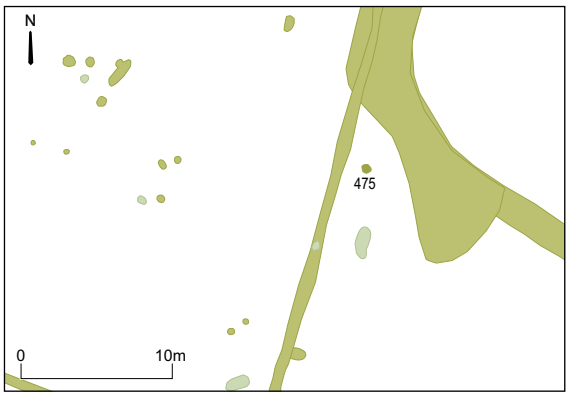


Fig 5.18 Cremation burial H[83]

CREMATION BURIAL H[83]

Type: unurned (Type 1)
Date: 45BC–AD75 cal (95% confidence, 1980±30 BP, Beta 446423)
Sex: uncertain
Age: adult
Finds: none

This burial lay less than 5m to the south of cremation burial [81] (Fig 5.18), and was also severely truncated. The pit was circular in plan, 0.25m in diameter and 0.07m deep, with shallow sloping sides and a slightly rounded base. The fill was mid grey-brown clay silt with moderate charcoal, pebbles and contained the highly fragmented cremated bone (532.8g) of an adult. Radiocarbon analysis of the charcoal produced a late Iron Age/early Roman date (Table 5.14).



Cremation H[475], looking east

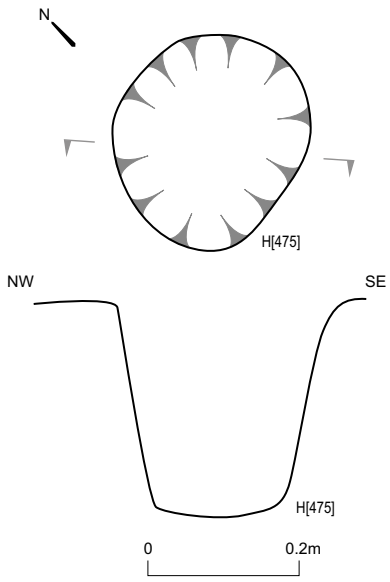


Fig 5.19 Cremation burial H[475]

CREMATION BURIAL H[475]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: none

This unurned cremation burial was well preserved, protected by a thick subsoil deposit to the east of the main burial ground, outside the enclosure (Fig 5.19). The pit was circular in plan, 0.28m in diameter and 0.28m deep, with near vertical sides and a flattish base. The fill was dark grey-black clayey silt with moderate charcoal and containing the highly fragmented cremated bone (33.8g) of an adult, which was slightly more abundant on the eastern half of the feature. The charcoal in this token burial was mostly wood of the hawthorn group.


Cremation H[477], looking north-west

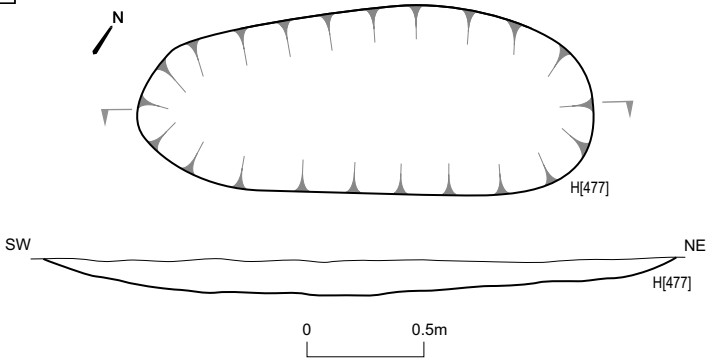


Fig 5.20 Cremation burial H[477]

CREMATION BURIAL H[477]

Type: unurned (*bustum*) (Type (1))
Date: late Iron Age +
Sex: uncertain
Age: sub-adult (1-5 years old)
Finds: seven pottery sherds

This burial was inside the south-east corner of the funerary enclosure (Fig 5.20), and had suffered some surface truncation. The pit was sub-rectangular, 1.67m by 0.60m in plan, and 0.10m deep with steep sides and a slightly rounded base. The elongated shape combined with scorching of the natural clay suggested its function as a *bustum*. The fill, H[476], was mid grey-brown clay silt with frequent charcoal with occasional larger lumps at the north-east end and occasional small to medium stones throughout. The highly fragmented cremated human bone (350g) was of a child aged 1-5 years at death.

Finds catalogue
<P187> Pottery, 7 sherds, 19g. E141. H[476]. Not illustrated.


Cremation H[502], looking north

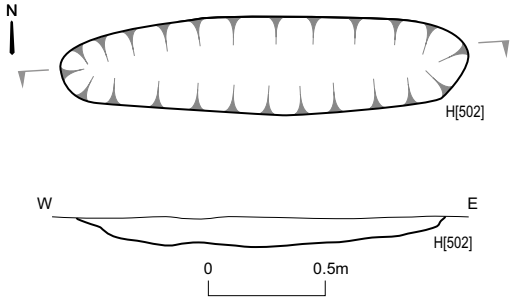


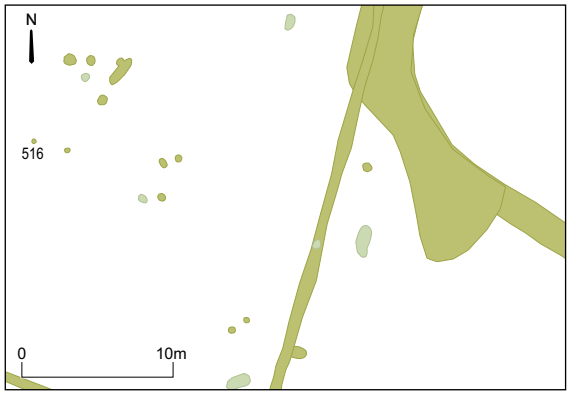
Fig 5.21 Cremation burial H[502]

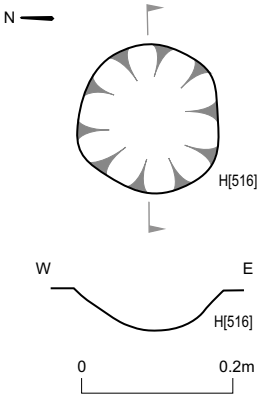
CREMATION BURIAL H[502]

Type: unurned (*bustum*) (Type (1))
Date: AD45+
Sex: uncertain
Age: uncertain
Finds: one pottery sherd

This was another probable *bustum* (Fig 5.21), 5m to the north of burial H[477], in the south-east corner of the funerary enclosure. The burial was sub-rectangular, 0.98m by 0.30m in plan, and 0.07m deep with steep sides and a slightly rounded base. The fill, H[501], was dark grey-black clayey silt with frequent charcoal. Occasional small cremated bone fragments (5.1g) lay throughout the fill, but could not be aged or sexed.

Finds catalogue
<P188> Pottery, 1 sherd, 20g. E36. H[501]. Not illustrated.





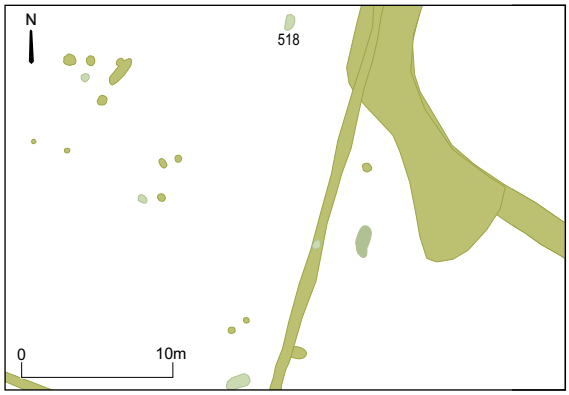
Cremation H[516], looking east

Fig 5.22 Cremation burial H[516]

CREMATION BURIAL H[516]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: none

This burial on the south-west side of the cemetery group, central to the funerary enclosure, was unurned and was severely truncated (Fig 5.22). The pit was circular in plan, 0.20m in diameter and 0.07m deep, with a rounded profile. The fill was dark brown clay silt, which contained a small quantity of highly fragmented cremated bone (9.1g) of an adult.



Cremation H[518], looking north

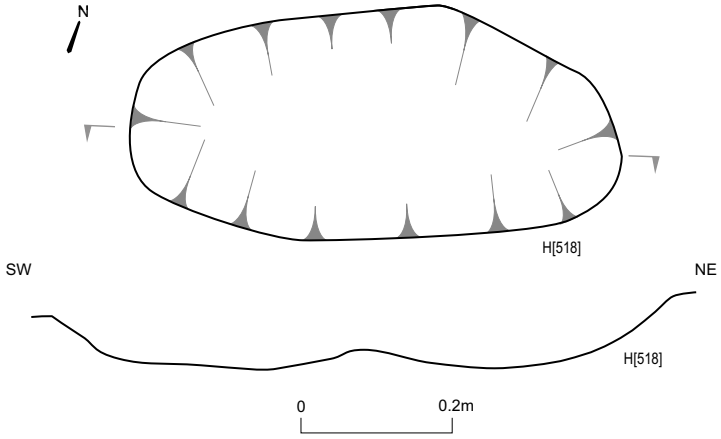


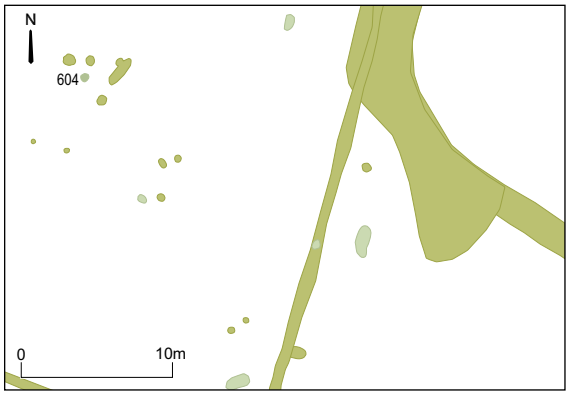
Fig 5.23 Cremation burial H[518]

CREMATION BURIAL H[518]

Type: unurned (Type 1)
Date: AD1–70
Sex: uncertain
Age: adult
Finds: 34 pottery sherds

The burial, within the north-east part of the funerary enclosure, was unurned and probably moderately truncated (Fig 5.23). The pit was oval, 0.63m by 0.21m in plan, and 0.11m deep with very steep sides and an uneven base. The pit was filled with dark black-brown clay silt, H[517], containing the fragmented cremated bone (61.8g) of an adult. Thirty-four sherds (136g) of pottery in three fabrics were recovered and these dated to AD 1–70.

Finds catalogue
<P189> Jar, 2 sherds, 14g, E01; Jar, 2 sherds, 13g, E60; and 30 sherds, 109g, E14. H[517]. Not illustrated.



Cremation H[604], looking north-east

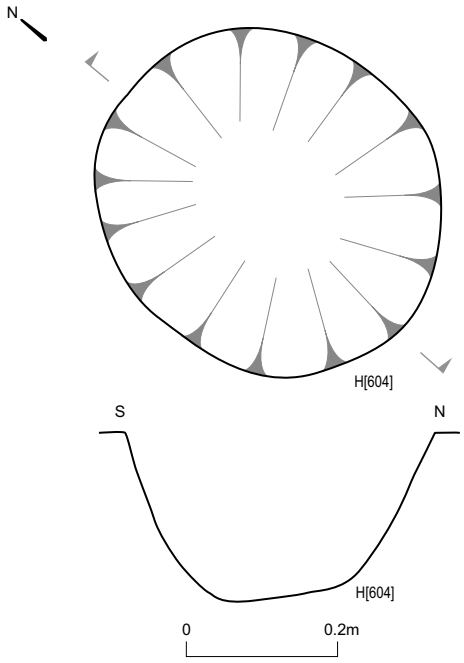
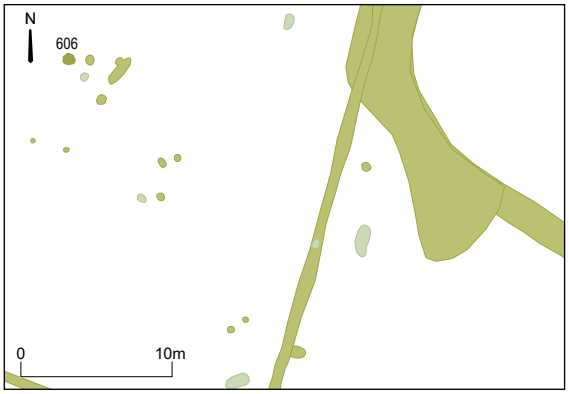


Fig 5.24 Cremation burial H[604]

Cremation burial H[604]

Type: unurned (Type 1)
Date: AD55–135 cal (95% confidence, 1900±30 BP, Beta 446424)
Sex: uncertain
Age: adult
Finds: none

This was unurned and close to the centre of the funerary enclosure, one of six burials clustered in an area of *c.*5m by 4m (Fig 5.24). The pit was relatively deep and survived well; it was circular in plan, 0.42m in diameter and 0.22m deep, with steep sides and a slightly sloped base. The fill was black sandy silt with a large quantity of charcoal and very fragmented cremated bone (495.5g) from an adult. Radiocarbon analysis dated the charcoal to the post-conquest early Roman period (Table 5.14).



Cremation H[606], looking south-west

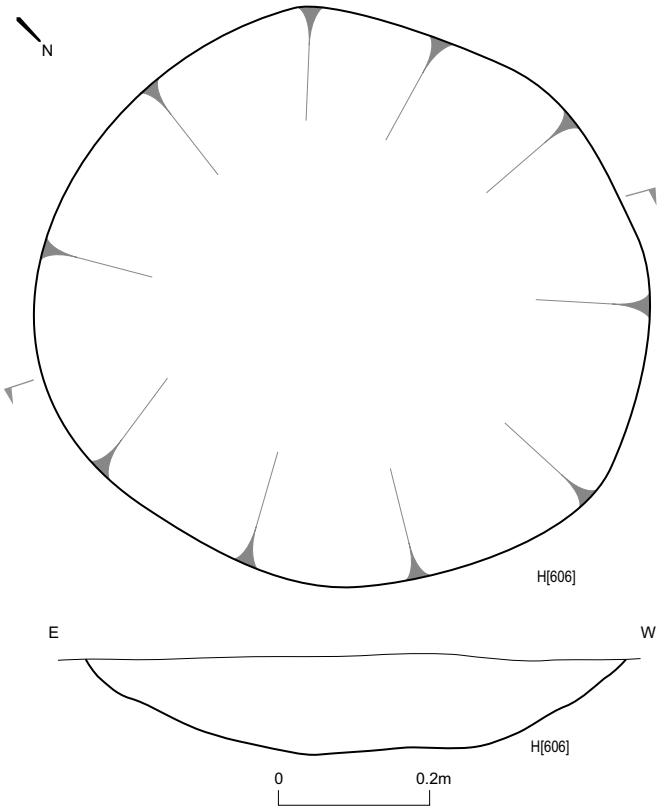


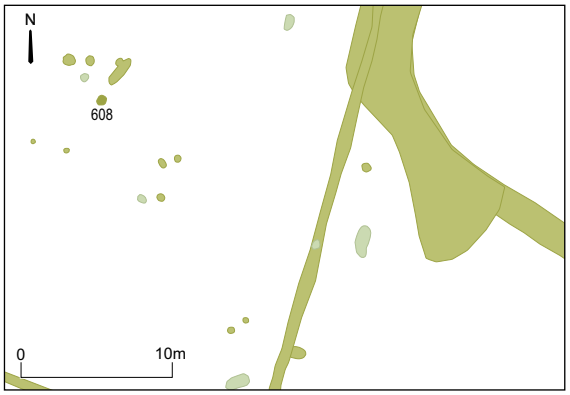
Fig 5.25 Cremation burial H[606]

CREMATION BURIAL H[606]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: one pottery sherd

This was unurned, moderately truncated and lay directly to the north of cremation burial H[604] within the cluster of six burials at the centre of the funerary enclosure (Fig 5.25). The pit was circular in plan, 0.91m in diameter and 0.12m deep, with moderately sloping sides and a slightly rounded base. The fill, H[605], was mid/dark brown-grey clay silt with frequent oak charcoal including occasional lumps. The highly fragmented cremated bone (1.7g) of an adult seems to have been a token deposit.

Finds catalogue
<P190> Pottery, 1 sherd, 13g. P50. H[605]. Not illustrated.



Cremation H[608], looking south

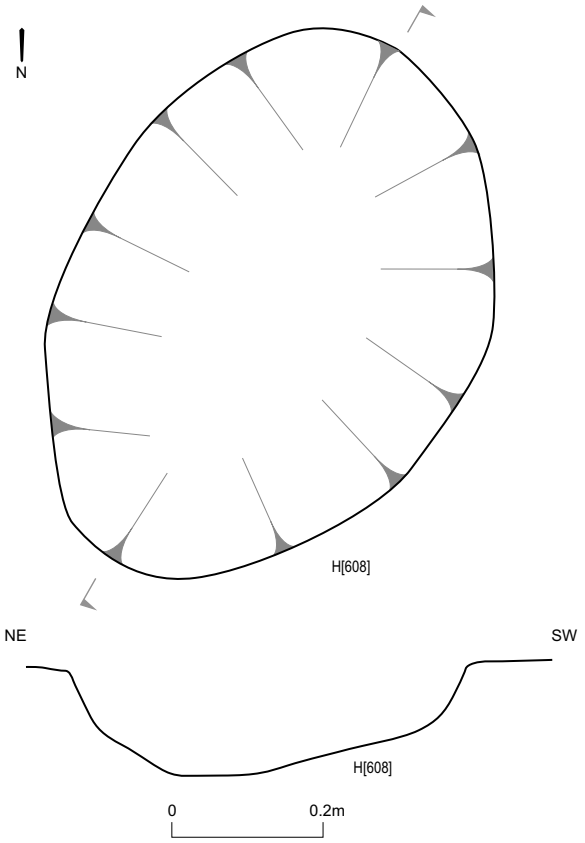


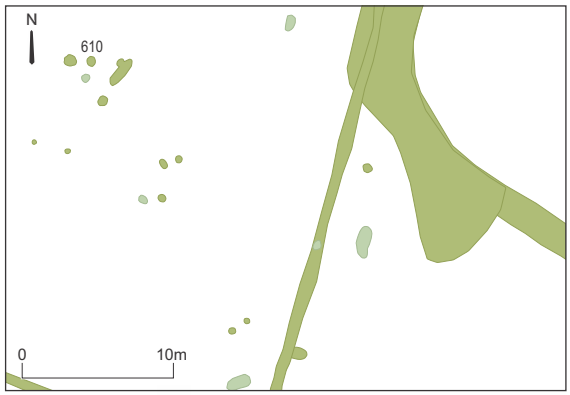
Fig 5.26 Cremation burial H[608]

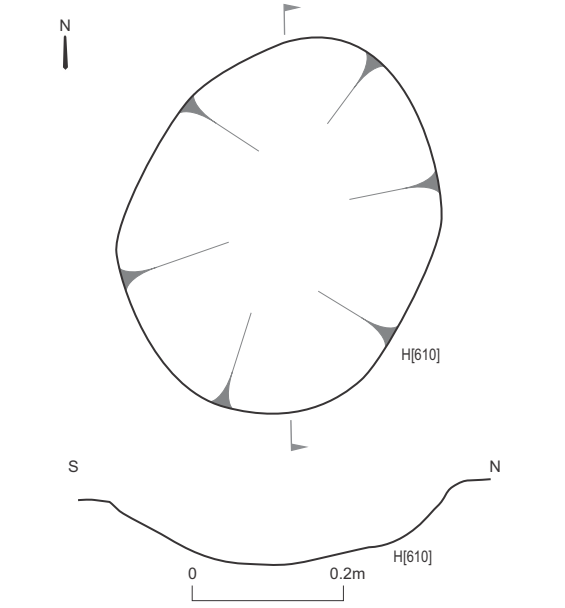
CREMATION BURIAL H[608]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: one pottery sherd

The burial was unurned and lay directly to the south of cremation burial H[604], within the cluster of six burials at the centre of the funerary enclosure (Fig 5.26). The pit had survived well and was oval, 0.52m by 0.41m in plan, and 0.18m deep with moderate to steep sides and a sloped base. The fill, H[607], was dark brown-black clay silt with large quantities of oak charcoal and the cremated bone (67.9g) of an adult.

Finds catalogue
<P191> Pottery, 1 sherd, 1g. P50. H[607]. Not illustrated.





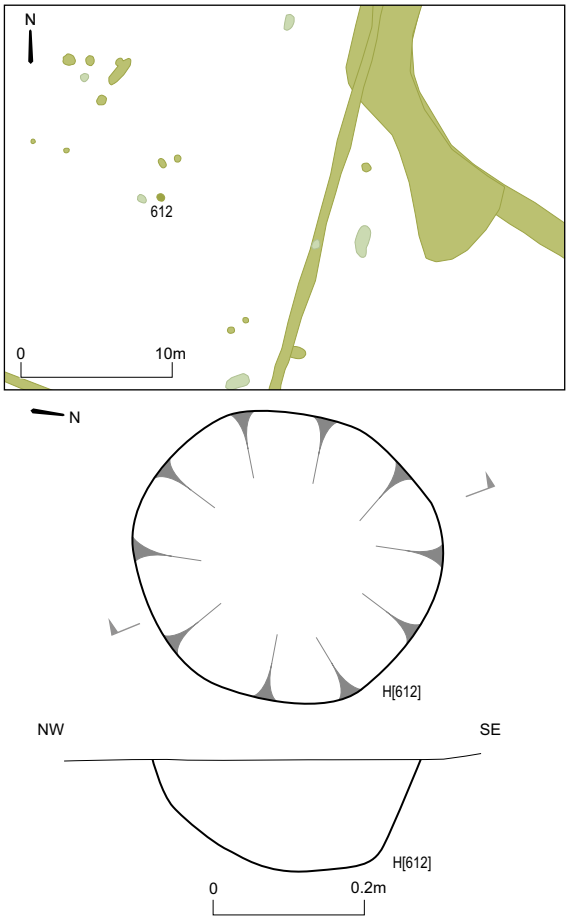
Cremation H[610], looking west

Fig 5.27 Cremation burial H[610]

CREMATION BURIAL H[610]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: none

The burial was unurned and lay to the north-east of cremation burial H[604] (Fig 5.27), within a cluster of six burials at the centre of the funerary enclosure. This relatively shallow feature was at least moderately truncated. The oval pit was 0.50m by 0.41m in plan, and 0.10m deep with moderate sloping sides and a rounded base. The fill was dark brown-black clay silt with moderate charcoal and the cremated bone (188.9g) of an adult.



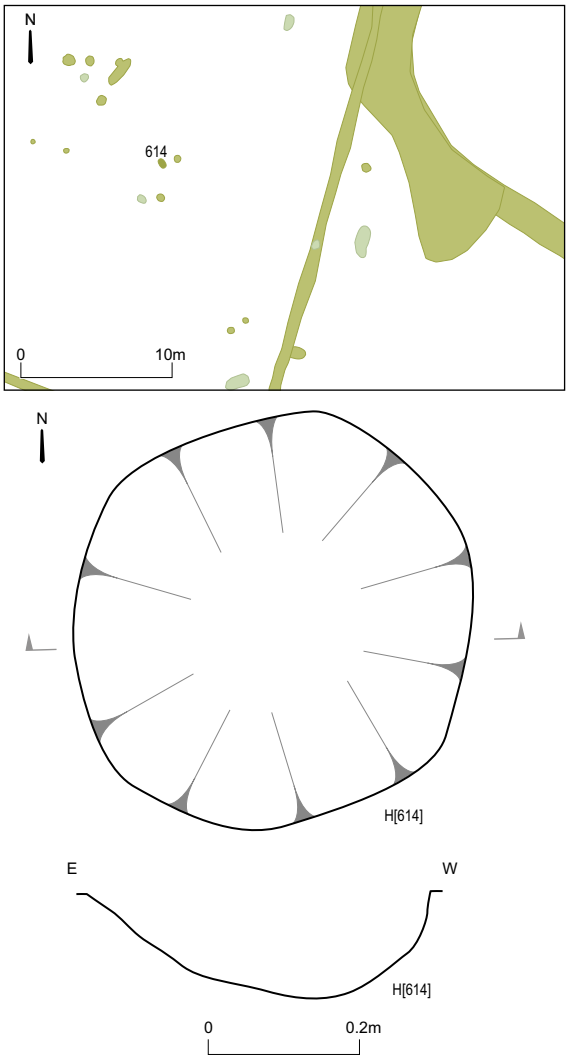
Cremation H[612], looking north

Fig 5.28 Cremation burial H[612]

CREMATION BURIAL H[612]

Type: unurned (Type 1)
Date: uncertain
Sex: probable male
Age: adult
Finds: none

This burial lay slightly south-east and off centre within the funerary enclosure, separated from the central cremation burial group, it was unurned and had survived well (Fig 5.28). The pit was circular in plan, 0.46m in diameter and 0.15m deep, with steep sides and a flat base. The fill was dark brown-black silty clay with large quantities of oak charcoal throughout. The cremated bone (712.5g) of a probable adult male was distributed throughout. A well healed striated lamellar bone was noted, together with moderate osteophytes on the finger bones.



Cremation H[614], looking south-east

Fig 5.29 Cremation burial H[614]

CREMATION BURIAL H[614]

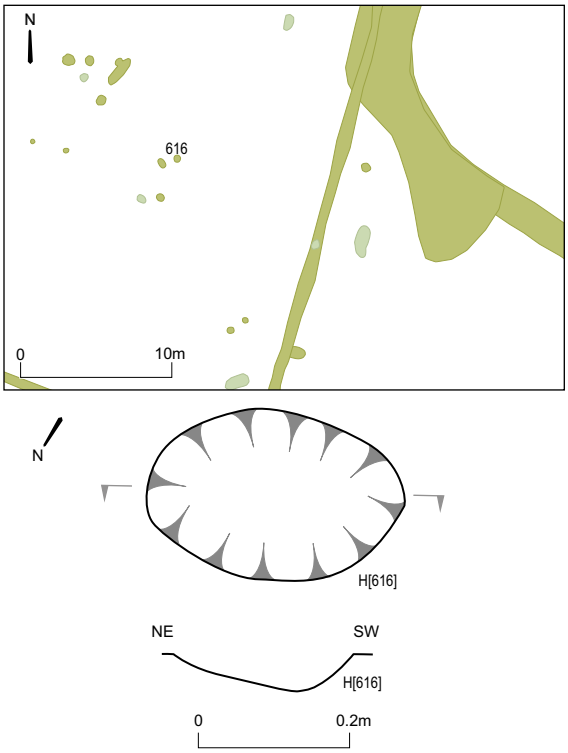
Type: unurned (Type 1)
Date: 30BC–AD45
Sex: uncertain
Age: adult
Finds: one iron nail, three pottery sherds

This burial, within the funerary enclosure to the north of cremation burial H[612], was unurned and had survived well (Fig 5.29). The circular pit was 0.42m in diameter and 0.12m deep, with moderate to steep sloping sides and a rounded base. The fill, H[613], was mid brown sandy clay, which contained charcoal, an iron nail <Fe72> and three sooted pottery sherds <P192> from a jar form in use 30BC–AD45. The relatively small quantity of cremated bone (87g) may suggest the token burial of an adult.

Finds catalogue

<Fe72> Nail, lead/iron. Incomplete. Flat sub-circular head of lead with vestige of square-sectioned iron shank, 24mm long. H[613]. Not illustrated.

<P192> Jar, sooted. 3 sherds, 13g. E32. H[613]. Not illustrated.



Cremation H[616], looking south

Fig 5.30 Cremation burial H[616]

CREMATION BURIAL H[616]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: uncertain
Finds: none

This possible cremation burial, positioned adjacent to cremation burial H[614], was unurned and extremely shallow (Fig 5.30). The oval pit was 0.21m by 0.14m in plan, and 0.04m deep, little more than a rounded scoop. The fill was mid brown sandy clay, which contained charcoal and a few flecks of cremated bone (3g) that could not be aged or sexed. This amount of bone may suggest a badly truncated token burial or accidental incorporation in a shallow posthole.

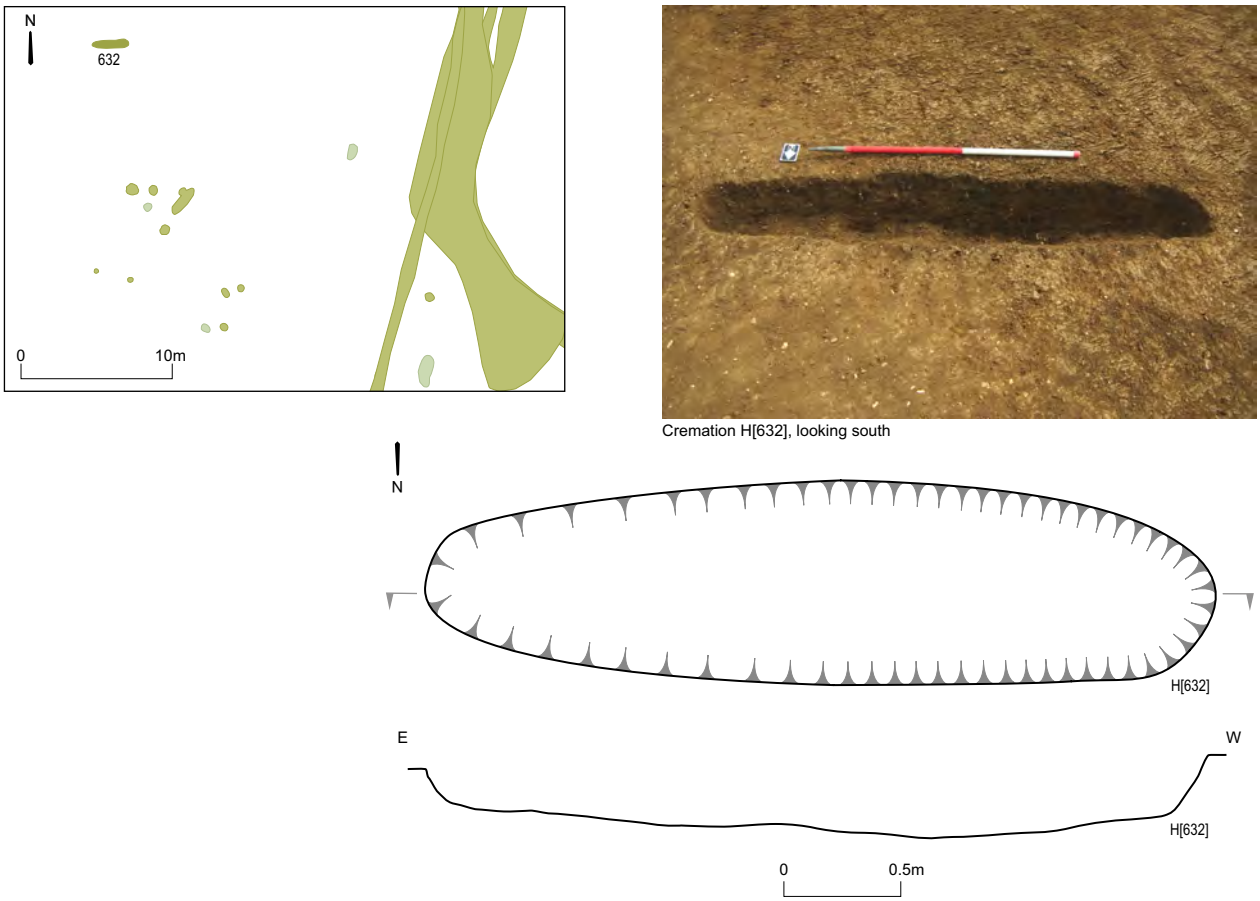


Fig 5.31 Cremation burial H[632]

CREMATION BURIAL H[632]

Type: unurned (*bustum*) (Type (1))
Date: 105BC–AD30/40–50 cal (95% confidence, 2030±30BP, Beta 446420)
Sex: uncertain
Age: adult
Finds: two pottery sherds

This burial was probably a *bustum*, within the northern perimeter of the funerary enclosure, which had survived fairly well (Fig 5.31). The pit was sub-rectangular, 2.08m long and slightly tapered in plan, 0.20m-0.33m wide and 0.17m deep with steep sides and an uneven base. It was filled with dark grey-black clay silt, H[631], with frequent burnt clay, oak charcoal and cremated bone (608.9g) from an adult. Radiocarbon analysis of the charcoal produced date ranges spanning the 1st centuries BC–AD (Table 5.14). The pottery fabric is of the period 30BC–AD45.

Finds catalogue
<P193> Pottery. 2 sherds, 1g. E141. H[631]. Not illustrated.

Cremation burial H[634]

Type: unurned (*bustum*) (Type (1))
Date: 50BC–AD65 cal (95% confidence, 2000±30BP, Beta 446421)
Sex: uncertain
Age: adult
Finds: 20 pottery sherds

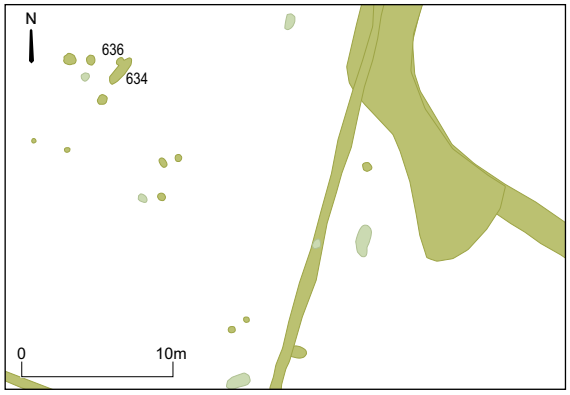
This burial was also a *bustum* in good condition on the east side of the central cluster of burials inside the funerary enclosure (Fig 5.32). The *bustum* cut cremation burial H[636]. The pit was sub-rectangular, 1.95m by up to 0.49m wide in plan, and 0.27m deep. Fairly gentle sloping sides met in a rough/uneven rounded base that was filled with dark grey-black clay silt that contained sooted pottery <P194> from a grog tempered handmade jar or beaker in use in the period 30BC–AD45. It was recovered from the south-eastern edge of the pit. The fill, H[633], contained oak charcoal fragments with lumps up to 75mm in size, burnt clay and cremated bone (908.9g) from an adult. Pathology on the bone revealed two dental caries on the mesial and distal surfaces of the 2nd/3rd upper molar. Calculus was noted well below the cementoenamel junction, together with periodontal disease. Radiocarbon analysis of the charcoal produced a date range in the 1st centuries BC–AD (Table 5.14).

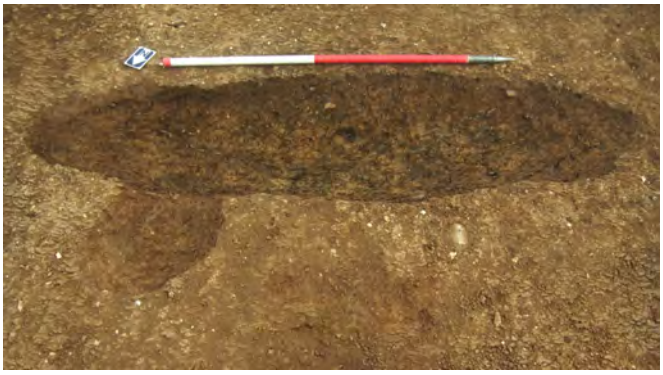
Finds catalogue
<P194> Jar or beaker, sooted, handmade. 20 sherds, 132g. E21. H[633]. Not illustrated.

Cremation burial H[636]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: adult
Finds: none

The burial was unurned with poor survival (Fig 5.32), cut on its southern side by *bustum* H[634]. The pit was circular in plan, 0.40m in diameter and 0.10m deep, with moderate sides and a rounded base. The fill was mid brown-grey clay silt with frequent oak charcoal and cremated bone (917.9g), some of which were large pieces, all from an adult. Well-healed plaque of lamellar bone was present on one indeterminate long bone fragment.





Cremations H[634] and H[636], looking south

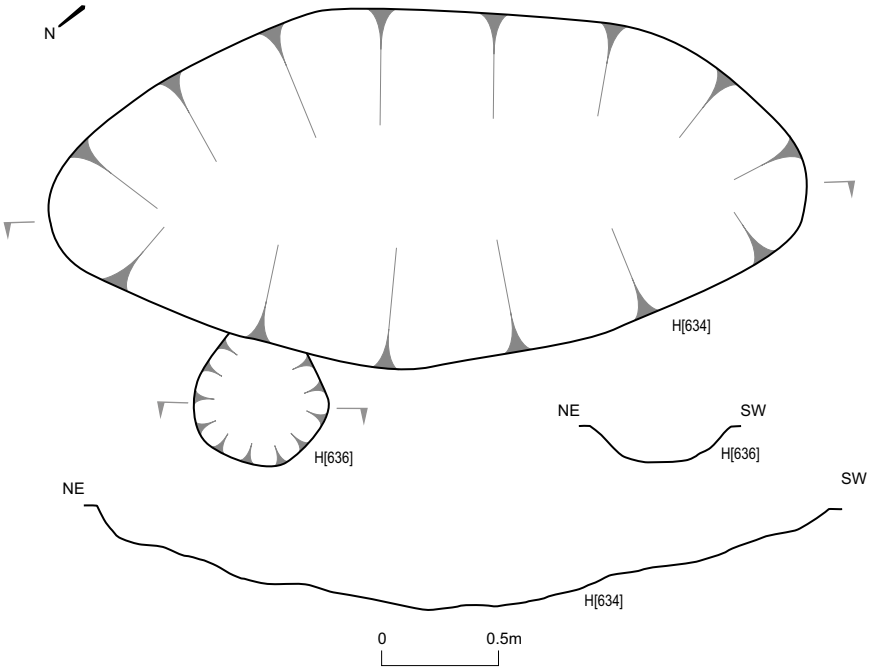
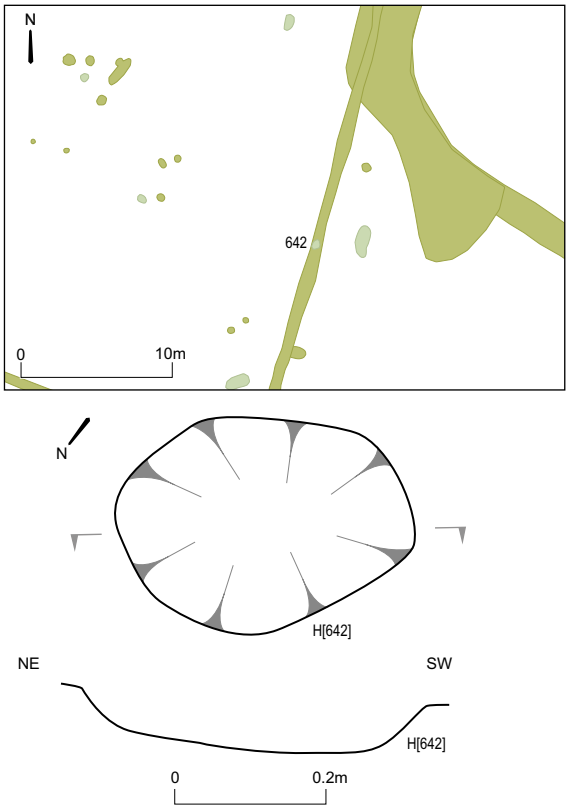


Fig 5.32 Cremation burial H[634]



Cremation H[642], looking south-east

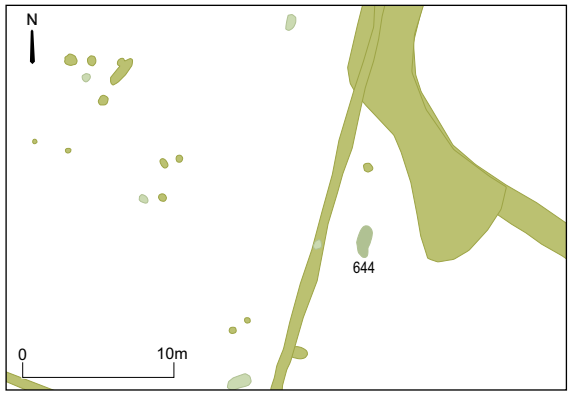
Fig 5.33 Cremation burial H[642]

CREMATION BURIAL H[642]

Type: unurned (Type 1)
Date: AD45+
Sex: uncertain
Age: uncertain
Finds: one pottery sherd

The burial, which had suffered severe truncation, was on the eastern side of the funerary enclosure, as a post-Conquest insertion that cut the perimeter ditch, (Fig 5.33). The pit was oval, 0.46m by 0.30m in plan, and 0.08m deep with steep sides and a flat base. The fill, H[641], was mid brown to black clay silt, barely distinguishable from the ditch fill except for a patch of frequent charcoal. The small quantity of very fragmentary cremated bone (14.6g) could not be aged or sexed.

Finds catalogue
<P195> Pottery. 1 sherd, 3g. O01. H[641]. Not illustrated.




Cremation H[644], looking south-east

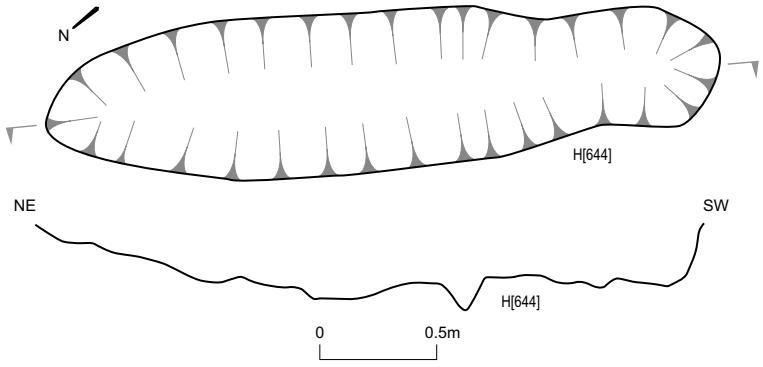


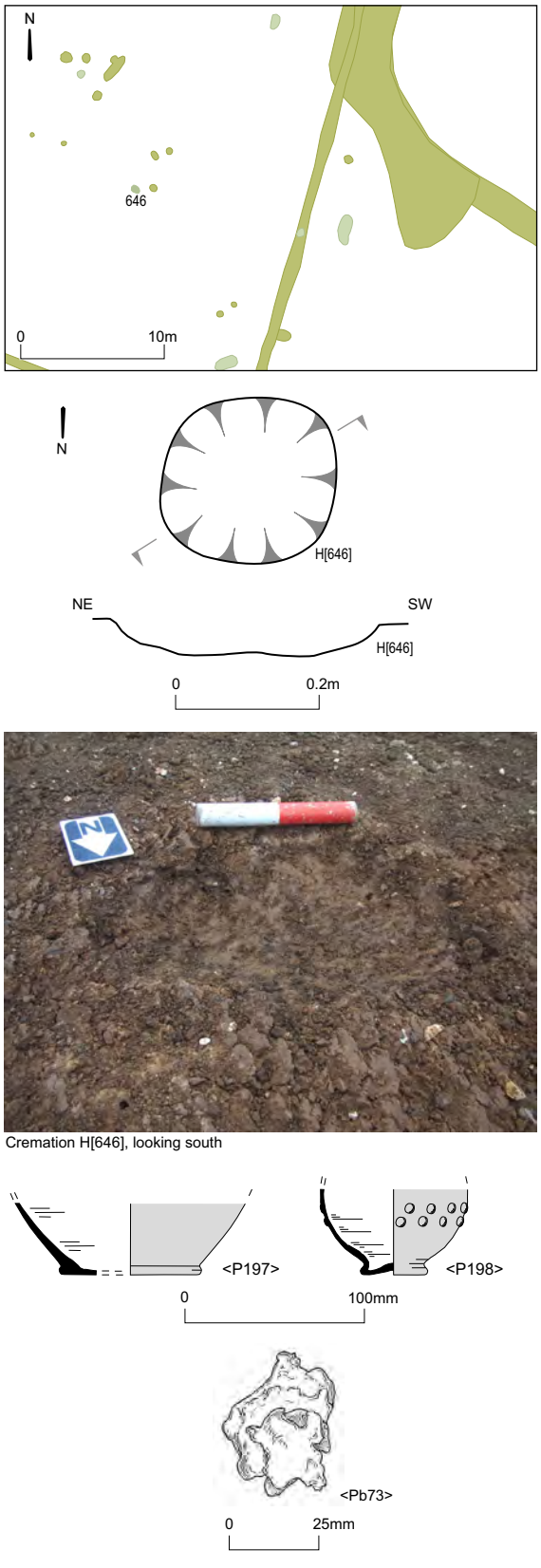
Fig 5.34 Cremation burial H[644]

CREMATION BURIAL H[644]

Type: unurned (*bustum*) (Type (1))
Date: 45BC–AD70 cal (95% confidence, 1990±30 BP, Beta 446422)
Sex: uncertain
Age: adult
Finds: one pottery sherd

This burial was a *bustum* in fairly good condition outside the funerary enclosure on its east side (Fig 5.34). The pit was sub-rectangular, 1.79m by 0.35m in plan, and 0.22m deep with steep sides and ragged base. The fill, H[643], was dark brown sandy silt with charcoal flecks and the highly fragmented cremated bone (113.2g) of an adult. Fragmented leg bones from the femur/tibia appear scorched in some parts indicating differential burning. The radiocarbon analysis of charcoal produced a result consistent with the pottery in the 1st centuries BC–AD (Table 5.14).

Finds catalogue
<P196> Pottery. 1 sherd, 1g. O01. H[643]. Not illustrated.



Cremation H[646], looking south

Fig 5.35 Cremation burial H[646]

Cremation burial H[646]

Type: urned and furnished (Type 5)
Date: AD40–120
Sex: uncertain
Age: uncertain
Finds: lead pot weld, cinerary urn and accessory vessel

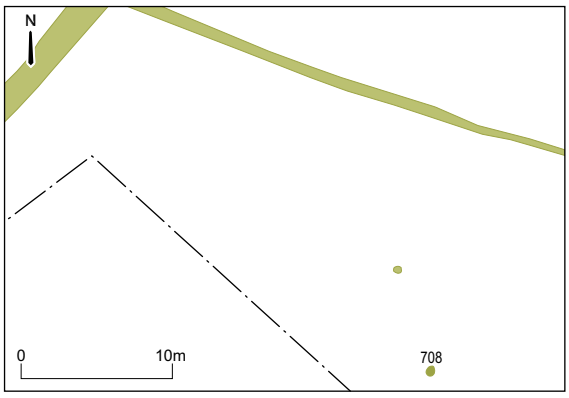
The burial lay within the funerary enclosure, separate from the central group and slightly to the east side (Fig 5.35). It was the only urned and furnished burial within the cemetery and had been heavily truncated. The pit was oval, 0.37m by 0.25m in plan, and 0.05m deep with a shallow slightly rounded profile. The cinerary urn <P197> was a beaker <P198>, dated to AD40–120, lying on the west side of the pit. The cremated bone (81.8g) inside the urn could not be aged or sexed but indications of periostitis indicated well-healed striated lamellar bone on the surface of a tibial mid-shaft fragment. An accessory vessel <P198> lay on the east side of the pit. The grave fill, H[645], was dark brown sandy silt, which produced a lead pot weld <Pb73>. The accessory vessel had been pierced.

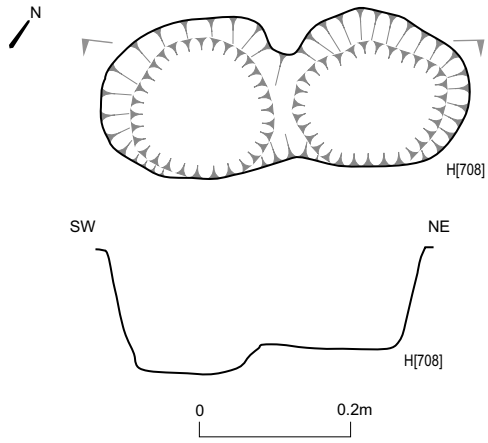
Finds catalogue

<P197> Jar, handmade with fine quartz temper, cinerary urn, 30BC–AD45. 64 sherds, 139g. E16.

<P198> An unadorned greyware beaker with a pedestal base and barbotine dots, heavily eroded surfaces, pierced (Marney 1989, fig 7, no. 42). Accessory vessel, AD40–120. 16 sherds, 16g. R22.

<Pb73> Repair, pot weld, lead. A lead patch run into a small hole, inner surface dendritic, outer surface flat, suggesting that it is a repair to the base. Vestige of oxidised sandy fabric survives in recess between the inner and outer faces, *c*.35x32mm in size. H[645].





Cremation H[708], looking north-west

Fig 5.36 Cremation burial H[708]

CREMATION BURIAL H[708]

Type: unurned (Type 1)
Date: uncertain
Sex: uncertain
Age: uncertain
Finds: three pottery sherds

Burial H[708] was an isolated unurned burial, *c.*50m to the north of the funerary enclosure; this was in fair condition (Fig 5.36). The pit may have been two small intercutting features as the oval pit was a figure-of-eight in plan, 0.42m long by 0.25m wide, and 0.13m-0.16m deep with near vertical sides. The base comprised two stepped areas, both flat. The fill, H[707] was undifferentiated dark grey-black clay silt with frequent charcoal and very occasional highly fragmented cremated bone (1.2g), which could not be aged or sexed. The small quantity of bone suggests it may have been a token deposit.

Finds catalogue
<P199> Pottery. 3 sherds, 3g. P50. H[707].

Cremation burial H[3015]

Type: ?unurned and furnished (Type 2)
Date: AD20–45
Sex: uncertain
Age: adult
Finds: pig spine, *c.*11 accessory vessels

The burial was isolated *c.*100m to the north of the main cemetery, and was damaged by later ploughing (Fig. 5.36). The burial was laid in an oval pit, 0.90m by 0.55m in plan, and 0.10m deep with shallow sloping sides and an irregular flattish base. The cremation itself comprised the unurned highly fragmented cremated bone (111.6g) of an adult mixed with a silt-clay matrix, H[3013], and laid at the base of the pit. Overlying the human remains was a side of pork, H[3014], which had been laid lengthways on top of the cremation burial. This survived in the archaeological record as an articulated spine with vertebra partly fused from an adult pig *c.*4 years old at death, accompanied by *c.*11 pottery vessels which were placed around it. Up to three pottery vessels (<P200-202>) lay north-east of the animal remains and roughly eight vessels lay on its south side (<P203-210>). No human bone was recorded in any of the vessels. A radiocarbon date from the charcoal in the lower fill was consistent with the dating for the pottery that lay above: 85–75/55BC–AD60 cal (95% confidence, 2010±30 BP, Beta 446425), but in this instance the pottery provides a more refined date range.

Finds catalogue
<P200> Gallo-Belgic CAM8 copy platter, almost complete, AD20–65. 5 sherds, 150g. E13. H[3015].
<P201> Accessory vessel, handmade sandy fabric, 30BC–AD45. 29 sherds, 38g. E121. H[3015]. Not illustrated.
<P202> Accessory vessel. 8 sherds, 16g. E01. H[3015]. Not illustrated.
<P203> Flagon, buff white fabric. Probably locally made rather than import, AD1–70. 49 sherds, 231g. W16. H[3015].
<P204> Local copy of butt beaker, base with rouletted wall, AD1–70. 8 sherds, 56g. W16. H[3015].
<P205> North Gaulish whiteware flagon, AD1–70. 2 sherds, 39g. W51. H[3015]. Not illustrated.
<P206> Jar, 30BC–AD45. 27 sherds, 42g. E121/000. H[3015]. Not illustrated.
<P207> Accessory vessel, handmade grog and quartz tempered, 30BC–AD45. 61 sherds, 118g. E121. H[3015]. Not illustrated.
<P208> Accessory vessel, AD1–70. 112 sherds, 244g. E01. H[3015]. Not illustrated.
<P209> Accessory vessel. 2 sherds, 14g. W23. H[3015]. Not illustrated.
<P210> Whiteware accessory vessel, AD20–65. 2 sherds, 10g. W04. H[3015].
<P211> Pottery, probably from <P203> or <P204>. 4 sherds, 4g. W16. H[3015]. Not illustrated.

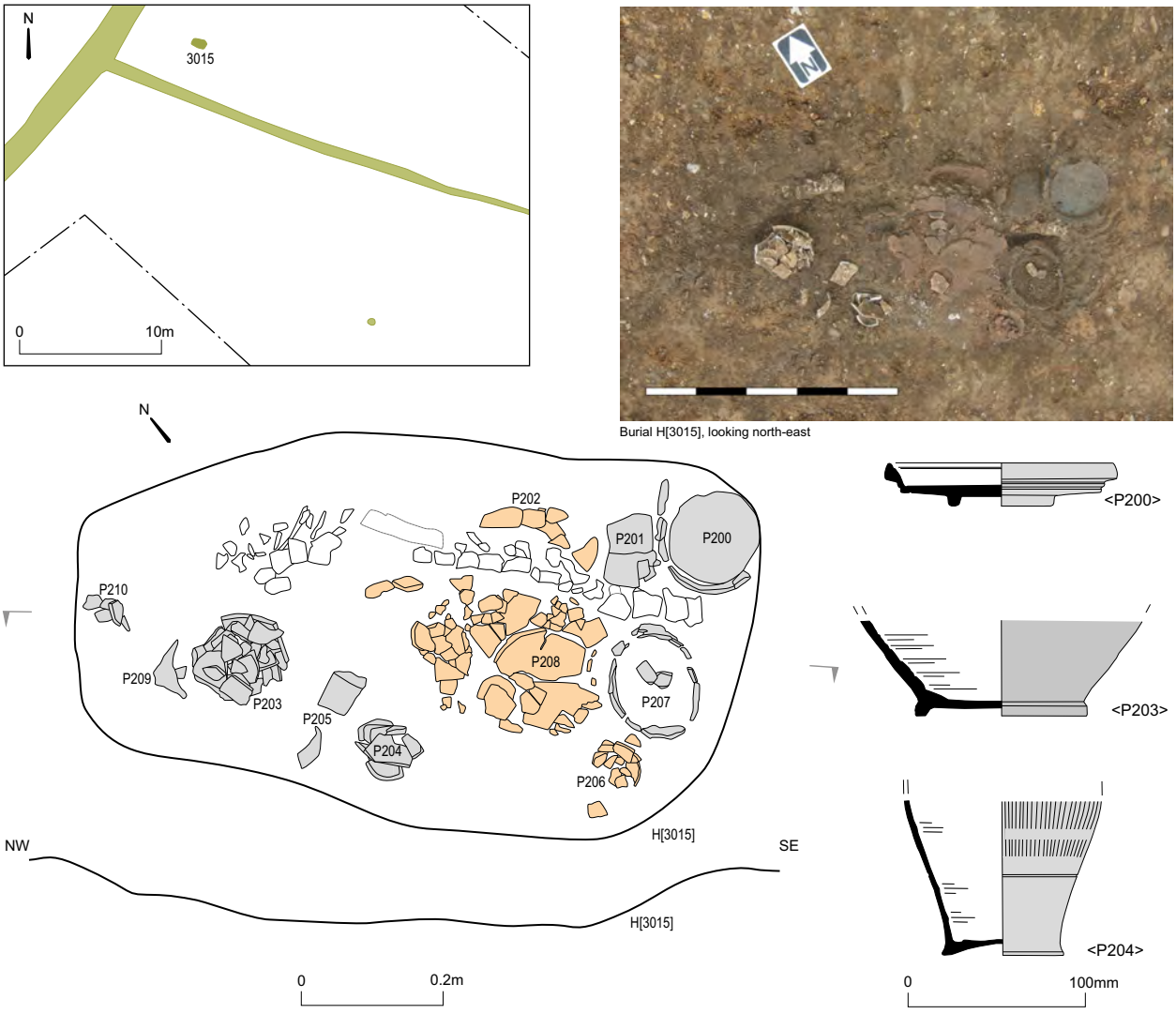


Fig 5.37 Cremation burial H[3015]

Early Roman cremation burials and inhumations at Site Q

Five human burials were found at Site Q in three different locations (Fig 5.38). A middle-late Iron Age inhumation and two late pre-Roman Iron Age cremations lay in close proximity to each other within a possible enclosure. These burials were in an area where there were other sparse pits and postholes of uncertain function. Three ditches lay close to these burials, possibly parts of a sub-rectangular enclosure. An isolated cremation burial and an inhumation of the late 1st century AD were found further away.

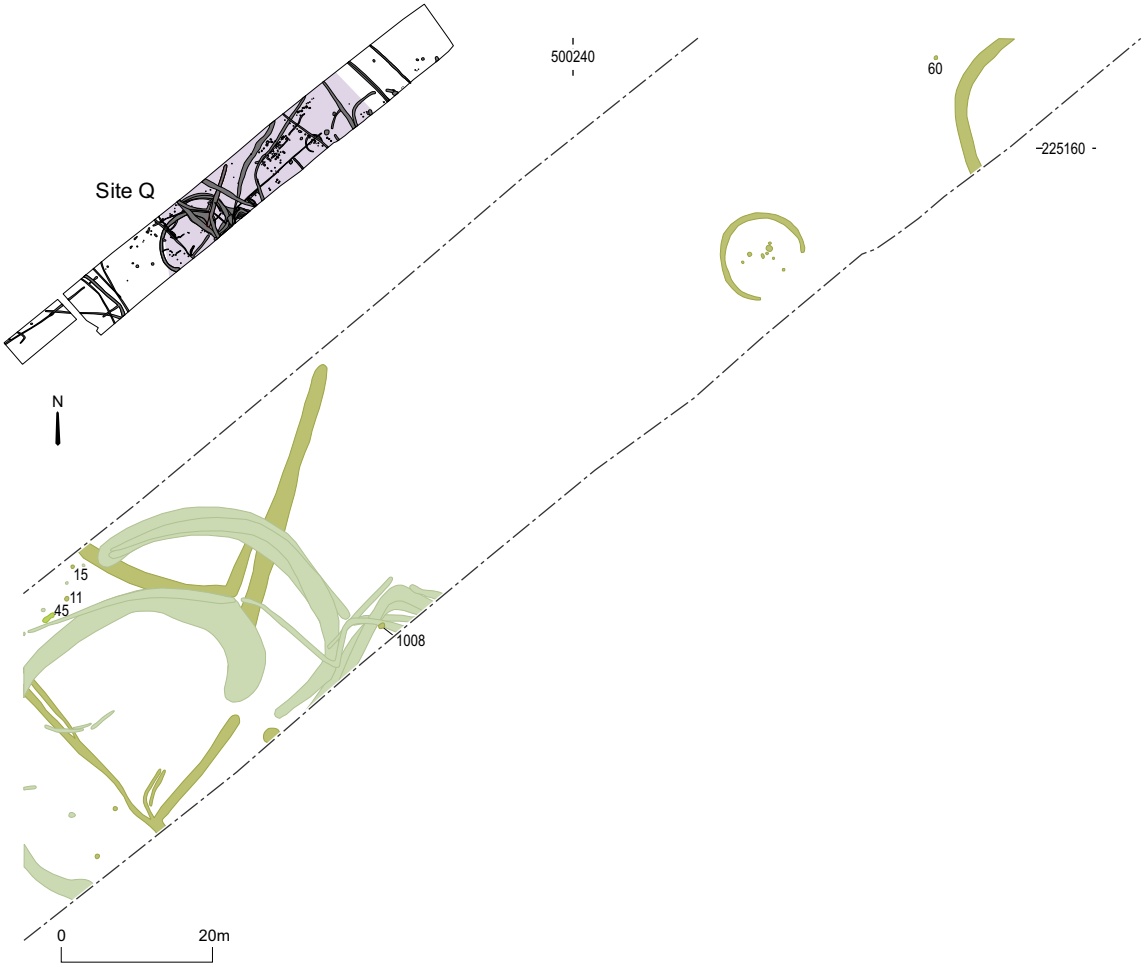


Fig 5.38 Location of funerary features at Site Q


Burial Q[11], looking north-west

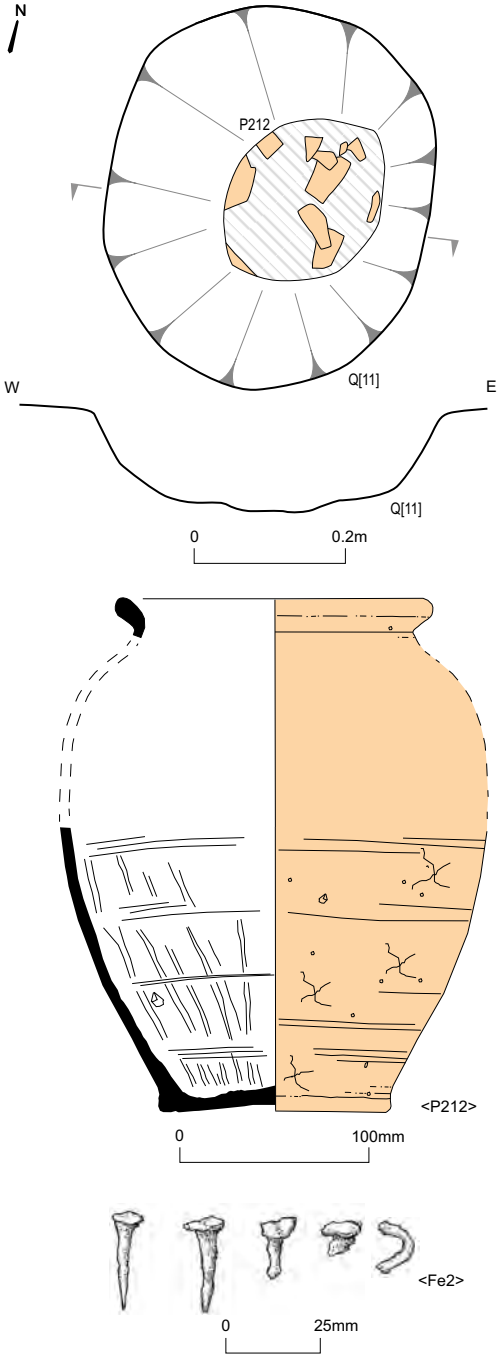


Fig 5.39 Cremation burial Q[11]

CREMATION BURIAL Q[11]

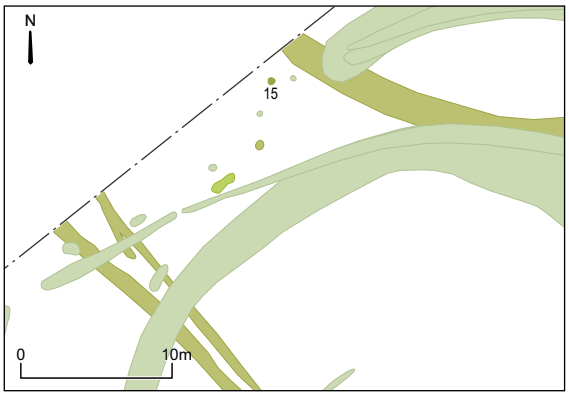
Type: urned (Type 4)
Date: 30BC–AD45
Sex: uncertain
Age: adult
Finds: two unburnt fragments of animal bone, four iron nails, cinerary urn

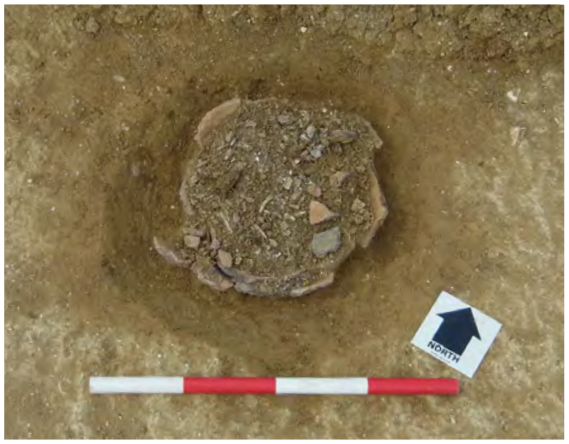
The burial was urned and severely truncated with only the lower half of the cinerary urn surviving (Fig 5.39). The pit was sub-circular, 0.50m by 0.42m in plan and 0.14m deep, with steeply sloping sides and a flattish base. The cinerary urn <P212> was on the eastern side of the pit and contained the highly fragmented cremated bone (881.8g) of an adult. The urn fill, Q[12], was dark brown-grey clay sand in which there were four iron nails <Fe2> and two fragments of unburnt animal bone. The grave fill was a mixed deposit of mid/dark orange-brown and light brown clay sand.

Finds catalogue

<P212> A necked jar rim with everted thickening straight rising rim (Thompson 1982, C2-1), cinerary urn, 30BC–AD45. 36 sherds, 984g. E121.

<Fe2> Nails (x4), iron. Identical flat sub-circular heads and tapered square-sectioned shanks, 25mm long. Q[12].





Burial Q[15], looking north-west

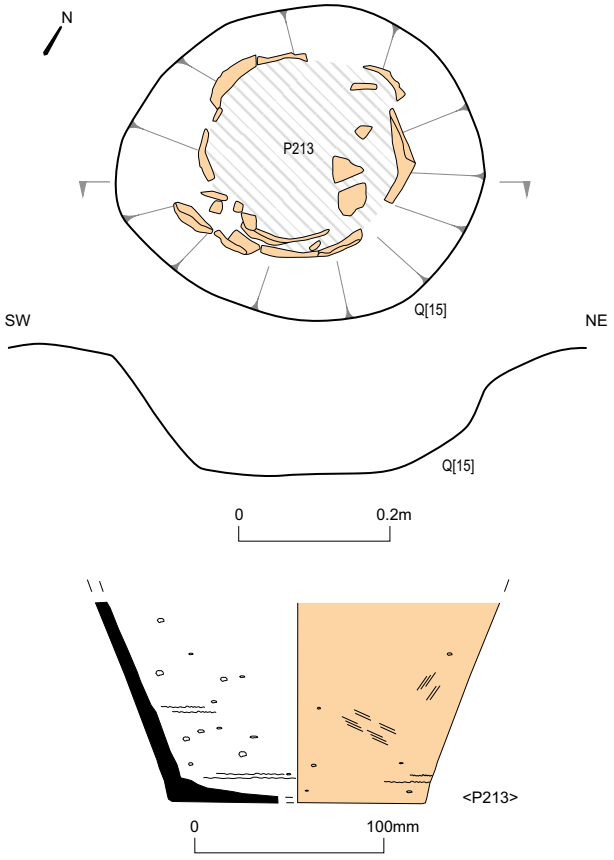


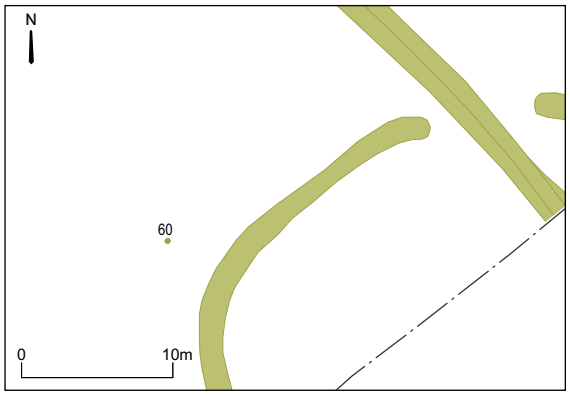
Fig 5.40 Cremation burial Q[15]

CREMATION BURIAL Q[15]

Type: urned (Type 4)
Date: late Iron Age/early Roman
Sex: uncertain
Age: adult
Finds: cinerary urn

The burial was urned and severely truncated (Fig 5.40). The pit was sub-circular, 0.49m by 0.41m in plan, and 0.13m deep with steep sloping sides and a flat base. The cinerary urn <P213> had been placed in the centre of the pit and contained the highly fragmented cremated bones (550.1g) of an adult within mid/dark orangey-brown clay sand. The grave fill was a mixed mid/dark orange-brown and light brown clay sand.

Finds catalogue
<P213> Jar base, handmade, cinerary urn, late Iron Age/early Roman. 44 sherds, 965g. C11.



Burial Q[60], looking north-west

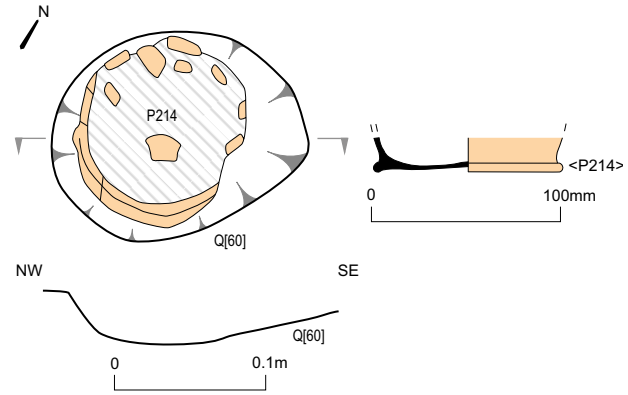


Fig 5.41 Cremation burial Q[60]

CREMATION BURIAL Q[60]

Type: urned (Type 4)
Date: AD 1–70
Sex: uncertain
Age: adult
Finds: cinerary urn

This extremely truncated isolated urned burial was in a sub-circular pit, 0.17m by 0.14m in plan, with little more than a shallow rounded base (Fig 5.41). The cinerary urn <P214> contained the highly fragmented cremated bones (56.8g) of an adult within a light grey-brown sand and ash deposit. The grave fill was a dark grey-brown clay.

Finds catalogue

<P214> Wheelmade cinerary urn, AD1–70. 50 sherds, 100g. E15.

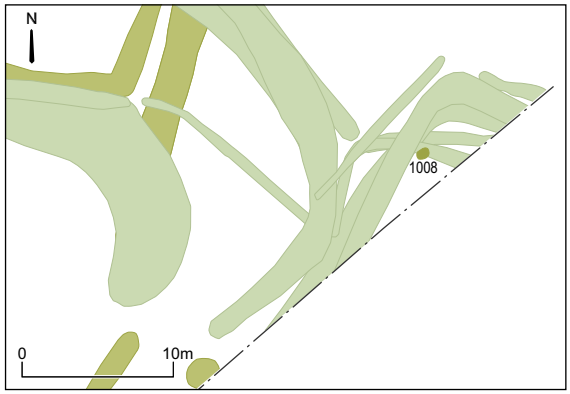
INHUMATION BURIAL Q[1008]

Type: flexed
Date: *c.*AD1–65
Sex: uncertain
Age: sub-adult (4-5 years old)
Finds: four pottery sherds, sheep/goat mandible, rodent bones

Inhumation burial Q[1008] was isolated and cut into a backfilled ditch that was disused by *c.*AD70 (Fig 5.42). A tooth from the burial was radiocarbon dated 50BC–AD65 cal (95% confidence, 2000±30BP, Beta 456920). There were no Roman features at Site Q dated after this period except for a linear boundary ditch of the late 1st to early 2nd centuries.

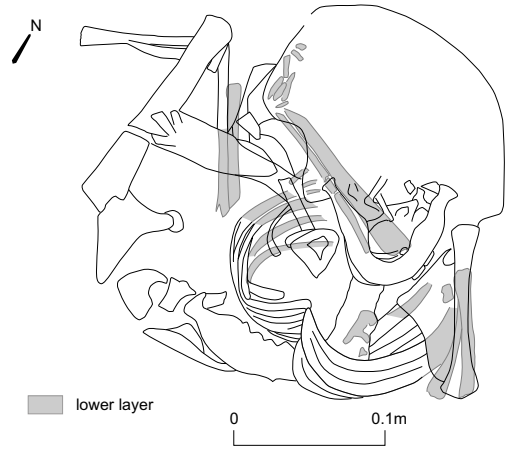
The burial pit was an irregular oval, 0.90m by 0.76m in plan and 0.12m deep. The sides of the grave were gentle to the north, with a steep southern side, whilst the base was irregular and rounded. The pit had certainly been truncated horizontally since analysis of the photographs and plans of the burial suggests that skeleton of a 4-5 year old child had been buried upright in a tight restricted hole in a flexed position. The head had rested down and forwards and after the body decayed it had settled upside down. The skeleton could not be sexed and was 25% complete. The head lay at the northern end of the pit, and had been compressed. The spine curved south and then west from the neck around to the hip and the legs, which curled back to the north, next to the head. The right arm was located directly to the south of the head, flexed at the elbow, with the forearm found directly under the humerus. There was no container, coffin or shroud, as its left leg was not restricted.

The grave fill was mid yellow-brown silty clay sand. Finds comprised a sheep/goat mandible with teeth (2-6 months at death), small rodent bones and four pottery sherds that are probably residual from the underlying ditch. The pottery <P215> is in three fabrics: E02 (1 sherd, 25g), E32 (1 sherd, 3g) and P00 (2 sherds, 9g), all datable to AD1–70. The pottery sherds are not illustrated.



Inhumation Q[1008], looking north-west

Inhumation Q[1008], looking north



Inhumation Q[1008], looking north-west

Fig 5.42 Inhumation burial Q[1008]

A CHARNEL BURIAL PIT OF THE LATE 4TH TO 5TH CENTURIES AD AT SITE F

A charnel burial pit, F[906], was found upon the north facing slope of Site F, due west of the late Iron Age/early Roman cremation cemetery. The pit had been heavily damaged by late Saxon agriculture and the bones were scattered throughout a relict plough soil horizon (see Chapter 7; Figs 5.42 and 5.43).

CHARNEL BURIAL PIT F[906]

Type: Inhumed charnel, mostly disarticulated
Date: AD380–435/460–465/490–535 cal (95% confidence, 2770±30BP, Beta 456912)
Sex: uncertain
Age: two adults and three sub-adults
Finds: juvenile chicken bone, other large bird bone, eight Roman pottery sherds, 14 early/middle Saxon pottery sherds. Not illustrated.

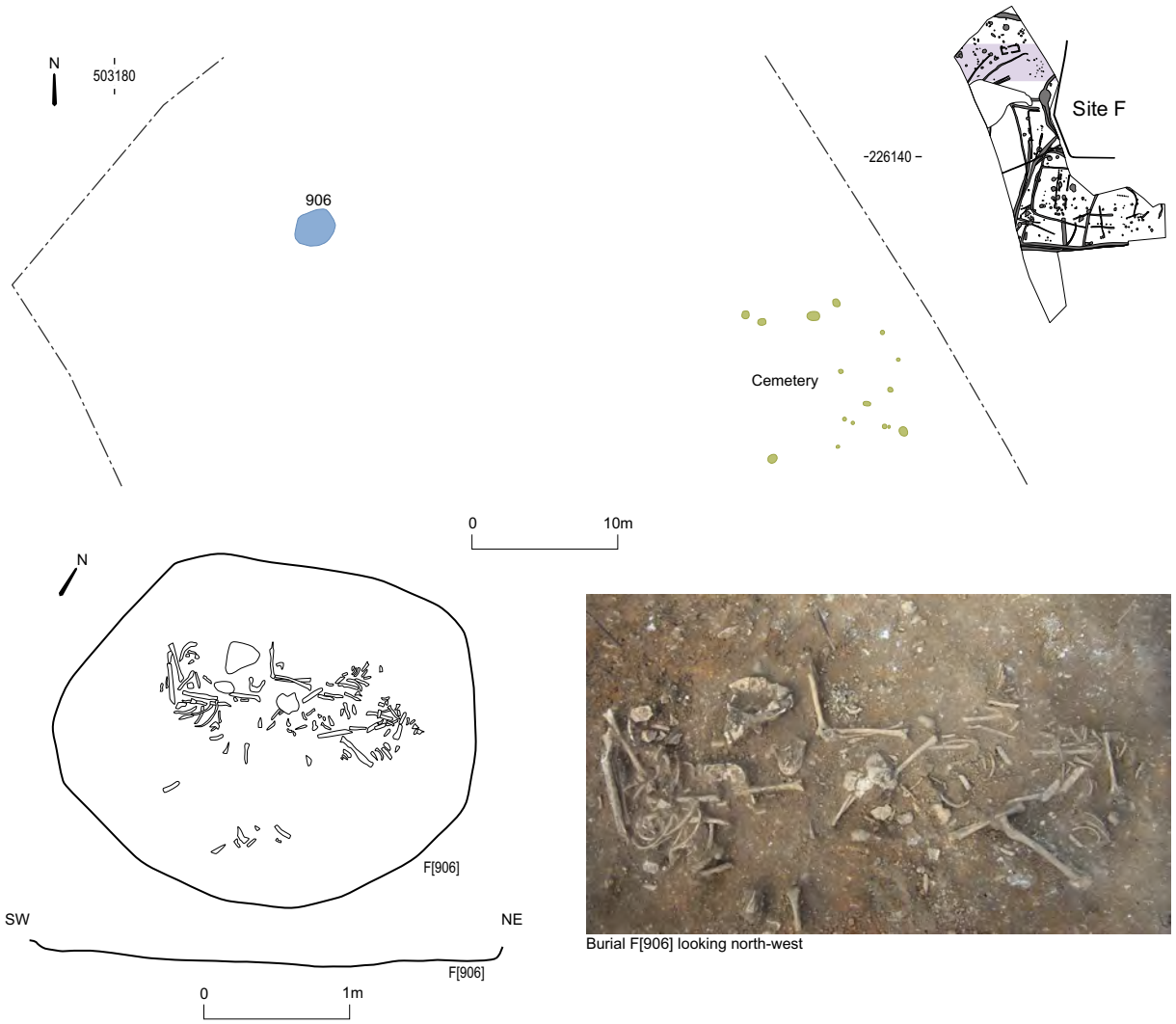


Fig 5.43 Charnel burial pit F[906]

Charnel burial pit F[906] was roughly sub-circular, 1.9m by 0.9m in plan, and up to 0.12m deep with gentle sides and a flattish base. Ploughing had dragged elements through the overlying plough horizon, up to 1.6m from the burial pit (see Chapter 7). The primary fill was dark brown-grey to black silty clay, which included pottery of the 5th century AD alongside residual Roman and middle and late Saxon sherds <P216>. Three Roman vessels were noted in two fabrics (E14 and R131). The early/middle Saxon sherds and animal bone are considered to be intrusive. A radiocarbon sample from one of the human teeth returned a range of possible dates that suggest a late 4th or more likely, an early 5th-century AD date for the charnel (Table 5.14). A Roman coin of Magnus Maximus (AD383-388) was found in the Saxon plough soil above.

Within the pit were disarticulated human remains from parts of five people; two adults and three children. The main bone deposit in the pit was F[905] and more spurious disturbed finds and bone elements were recorded in the plough horizon around the burial as F[909] and F[910]. The spread covered an area of 3.75m by 3.20m in plan, and was 0.12m thick. The bone was in fairly good condition, but completely disarticulated.

Fig 5.44 Recording human remains from charnel pit [F[906] before exhumation

SPECIALIST STUDIES

LATE IRON AGE/EARLY ROMAN POTTERY FROM CREMATION BURIALS

BY PHIL MILLS

The pottery assemblages from cremation burials at Site F, Site H and Site Q collectively comprise 38 pottery vessels, excluding one vessel that has gone missing (Tables 5.2 & 5.3). There was also a quantity of residual Iron Age tradition pottery from backfill deposits. Thirty-five cremation burials were recovered from three sites, but the relatively modest quantity of pottery reflects the majority of unurned cremations from Site H. Collectively the vessels and stray finds comprised 1,646 sherds (*c.*17.2kg). The vessels were in a poorer condition than those from Site M1A and most were heavily truncated, especially those from Site H, leaving an overall fragmented survival.

The majority of the fabrics were of the Aylesford–Swarling tradition, with a peak in deposition around AD20–40 at Site F (Fig 5.45). It is likely that none, or certainly very few, were buried in the 2nd century AD. Samian was notably absent from all of the sites and there were less than three fineware imports from North Gaul.

Although few burials contained vessels, two burials produced more than any of the burials from Site M1A (see Chapter 4). Grave F[348] had 10 vessels and parts of at least three more vessels as stray finds (Table 5.2). This burial, unlike the others from the A5–M1 link road, had intact examples. Of these 13 vessels, and apart from a white ware beaker, they were all of the Aylesford–Swarling tradition, many of which are handmade.

Twelve accessory vessels were recovered from Site H, all but one from burial H[3015], despite its truncation. Residual prehistoric pottery was also common amongst

Table 5.2: Inventory of vessels by form and date. All figures as Minimum Numbers of Vessels (MNV)

	Cremation urns					Accessory vessels							
Cremation	Jars (J)	Beakers (BK)	Flagons (F)	Dish (D)	Uncertain (O)	Jars (J)	Beakers (BK)	Flagons (F)	Dish/platters (D)	Uncertain (O)	Pottery comments	Total	Date
F[221]	-	-	-	-	1	-	-	-	-	-	-	1	mid C1 AD
F[225]/ F[229]	-	1	-	-	-	2	-	-	-	-	-	3	AD10-45
F[233]	-	-	1	-	-	-	-	-	-	-	-	1	30BC-AD45
F[237]	-	-	1	-	-	-	-	-	-	-	-	1	30BC-AD45
F[245]	1	-	-	-	-	-	-	-	-	-	4 sherds (13g) residual	1	AD10-60
F[249]	-	-	1	-	-	-	-	-	-	-	-	1	30BC-AD45
F[253]	-	-	1	-	-	-	-	-	-	-	-	1	30BC-AD45
F[271]	1	-	-	-	-	-	-	-	-	-	-	1	30BC-AD70
F[320]	-	-	1	-	-	-	1	-	-	-	12 sherds (20g) residual	2	30BC-AD45
F[348]	1	2	-	1	-	3	3	-	-	-	45 sherds (454g) from an additional three vessels	10	AD20-45
H[646]	1	-	-	-	-	-	1	-	-	-	-	2	AD40-5
H[3015]	-	-	-	-	-	1	1	2	1	6	4 sherds (4g), likely from one or more of the accessory vessels	11	AD20-45
Q[11]	1	-	-	-	-	-	-	-	-	-	-	1	30BC-AD45
Q[15]	1	-	-	-	-	-	-	-	-	-	-	1	C1BC/AD
Q[60]	-	-	-	-	1	-	-	-	-	-	-	1	AD1-70
Total	6	3	5	1	2	6	6	2	1	6	-	-	-
%Total	**15.8%**	**7.9%**	**13.2%**	**2.6%**	**5.3%**	**15.8%**	**15.8%**	**5.3%**	**2.6%**	**15.8%**	**-**	**-**	**-**

Site H cremation burials, some of which was similar to fabrics found in scattered middle–late Bronze Age pits (see Chapter 2).

The functional breakdown of the cinerary urns and accessory vessels by form is given in Table 5.2. The 17 cinerary urns seem to be broadly divided between beakers, flagons and jars, with the high number of flagons being surprising. The accessory vessels are dominated by beakers and jars.

THE POTTERY FROM THE SITE F CREMATION CEMETERY

The assemblage from the Site F cremation cemetery is an interesting group in its own right and contributes to an overall view of supply, fabric types, function and forms (see Chapter 4).

There were 1,196 sherds (14.9kg) with a minimum of 21 rims, a rim equivalent of 5.87, and a base equivalent of 15.29. The date distribution, by rim equivalent for all forms give a date range of 200 years or less (Fig 5.45).

This shows a general range consistent with the flourishing of the Aylesford–Swarling tradition, with a peak in deposition around AD20-40. A small number of handmade vessels such as beaker <P172>, <P177> and jar <P179> possibly provide the earliest date for the site. Wheelmade vessels in this fabric are, however, more common and the peak in the early part of the 1st century AD is suggested by the presence of a North Gaulish whiteware butt beaker <P175> and CAM26 copy platter <P174>. The latest pottery vessel may be bead-rim dish R085, which was from pit F[284], and is not clearly datable.

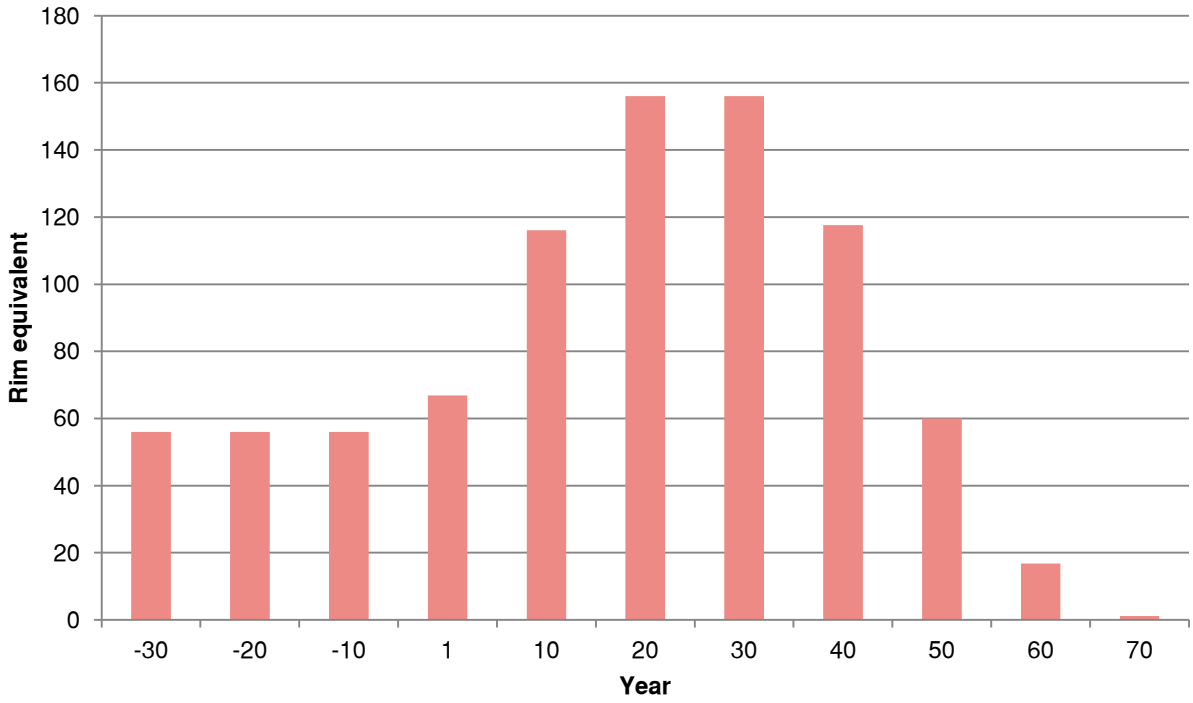


Fig 5.45 Date distribution for vessels from the Site F cremation cemetery

Table 5.3: Pottery occurrence by context type, Site F

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherd	Weight (g)	MNR	RE	BE		
Pit	0.7	0.7	4.8	0.7	3.7	13.50	5.00
Posthole	5.1	4.8	-	-	4.9	11.84	-
Cremation burial	91.4	93.5	90.4	98.6	91.4	12.76	35.63
Ditch	2.7	1.0	-	-	-	4.63	-
Other	0.1	0.0	4.8	0.7	-	1.00	5.00
Mean values	-	-	-	**6.87**	**15.29**	**12.49**	**32.71**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 5.4: Pottery supply by fabric, Site F

Ware Class	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherd	Weight (g)	MNR	RE	BE		
C	0.3	0.2	-	-	-	10.33	-
E	82.9	92.0	85.7	90.5	85.5	13.9	34.6
O	0.3	0.4	-	-	3.7	17.3	-
R	3.3	1.0	4.9	0.7	-	3.77	5.00
W	13.3	6.4	9.5	8.7	10.8	6.04	30.00
Mean values	**-**	**-**	**-**	**6.87**	**15.29**	**12.49**	**32.71**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 5.5: Functional analysis for A5-M1 cemetery sites and nearby comparison sites

	Vessel class (% of total)											
Site	Flagons	Constricted neck jars	Jars	Beakers	Cups	Bowls	Dishes	Lids	Other forms	Number	Quantification method	Source
Brooklands	11	-	15	26	8	19	21	-	-	17.75	RE	Stansbie 2014
A5-M1 Site H cremations	15.4	-	15.4	15.4	-	-	7.7	-	46.2	13	MNV	This volume
Marston Vale site 3 cemetery	9	-	18	36	-	9	19	-	9	11	MNV	Biddulph 2013
Harlington (in-situ cremation pots)	9.1	-	27.3	9.1	4.5	18.2	9.1	4.5	18.2	22	MNV	Dawson 2001
A5-M1 Site F cremations	22.7	-	36.4	31.8	-	-	4.5	-	4.5	22	MNV	This volume
A421 site 8 cemetery	-	5.3	36.8	26.3	-	5.3	21.1	-	5.3	19	MNV	Stansbie 2007
A421 site 4 cemetery	-	-	40	10	30	-	10	-	10	10	MNV	Stansbie 2007
New Venue, Court Drive	5	-	62	14	-	3	16	-	-	37	MNV	Slowikowski 2010
A5-M1 Site Q cremations	-	-	66.7	-	-	-	-	-	33.3	3	MNV	This volume
Warren Farm, Deepdale	11	-	68	16	-	-	-	5	-	19	MNV	Dawson and Slowikowski 1988
Ruxox cremations	20	-	80	-	-	-	-	-	-	5	MNV	Parminter and Slowikowski 2004
East Stagsden phase 4 burial	-	-	100	-	-	-	-	-	-	1	MNV	Dawson 2000

Vessel function based on form type following the definitions in Evans (1993) recorded either as minimum number of vessels by rim count (MNV) and rim equivalent by percentage (RE)

The breakdown of pottery occurrence by context type is shown in Table 5.3. The largest amount of material was from cremation burials or pits associated with these burials.

The breakdown by fabric is shown in Table 5.4. This site is dominated by Aylesford–Swarling wares and to a lesser extent by whitewares. There was a noted absence of samian.

The functional breakdown of the three A5-M1 pottery assemblages by form is given in Table 5.5, where the three assemblages are compared to other contemporary mortuary assemblages from the surrounding region. Jars were relatively few when compared with a very large presence of beakers, an artefact profile indicative of lower status. Only 5% of these vessels show signs of prior use through sooting.

Function analysis of the pottery from the A5–M1 cemeteries can be compared with other cemeteries in Bedfordshire and Milton Keynes (Table 5.5). This table is arranged by increasing proportion of jars. As has been noted previously (Biddulph 2013) the cemeteries tend to reflect a higher status than their associated settlements (see Chapter 6; Table 6.30). In particular there are much higher levels of vessels associated with the pouring and drinking of liquids. Site H would thus seem to be of a higher status than the other A5–M1 cemetery sites and falls towards the top of the status rankings of the cemetery groups compared (although statistics from this site should be treated with caution, as nearly half of the assemblage consisted of vessels unable to be assigned to a functional type). Site F is of slightly lower status and fits with the lower status cemeteries in the region. Site Q has a lone burial with a jar which is of the lowest status measured here.

The sites examined here all fall within Evans' (2001) rural range, although there would seem to be a hierarchy of status within this from basic single farmsteads to more complex rural settlements. The pattern for cemeteries would also seem to follow this pattern; Sites H and F would appear to fall within the upper-to-middle part of this range. The presence of storage jars at only a few sites suggest a degree of specialisation occurring at different sites.

Supply is rather mixed and is consistent with intermittent procurement of pottery as need requires rather than a more developed market economy. There are some trends in supply from north to south but it is far from clear and the possibility that the River Ouse and its tributaries acted as vectors of supply in this period seems plausible, not necessarily as water borne trade but used as navigation markers.

Iron discs

by Tora Hylton

Iron disc <Fe97> was not observed during excavation but was recovered during the processing/sieving of the cremation; therefore its actual position within the deposit was not recorded. This is the second disc which has been recovered during archaeological fieldwork associated with the A5–M1 link road. The first disc was recovered from the urned cremation cemetery at Site M1A [4171] (Fig 4.12, <Fe81>), where the disc had been placed beside an accessory vessel, on top of cremated bone which had been deposited in the base of the burial pit. Neither of the discs appears to have been damaged by heat, suggesting that they had been placed with the cremated human remains as a grave offering when they were interred. The presence of fragments of mineral-preserved wood on one of the discs <Fe81>, suggests that it had either been placed next to or was attached to an item of wood.

The discs range from *c.*76mm-87mm in diameter; this represents the higher end of the scale when comparing the sizes of other recorded examples, which range from *c.*45mm to *c.*89mm in diameter. The discs are *c.*7mm thick at the centre and this decreases towards the circumferential edge forming a circular –blade/'?cutting-edge'. On one side of the disc-edge there are two bisecting U-shaped notches, a feature noted on other examples from cremation cemeteries, Biddenham Loop, Bedfordshire (Duncan 2008, fig 9.13, RA118) and Monkston Park, Milton Keynes (Wardle *et al.* 2006, fig 17, 1.3). The latter example is damaged, so only a vestige of the notch survives. Another complete example from a multi-period deposit at West Stowe, Suffolk has a more "ornate" triple notch (West 1985 fig 242, 37), while three examples from Danbury have single U-shaped notches (Cunliffe 1984, fig 7.23, 2.174; Cunliffe 1991, fig 7.25, 2.350, 2.351). An ?incomplete crescent-shaped blade was recovered from an Iron Age grave at Westhampnett, West Sussex (Fitzpatrick 1997, fig 49, 27044) and this may represent another incomplete example.

The central perforations measure *c.*1mm-9mm in diameter, however, they both appear to retain the remains of a collar/tubular-rod, perhaps suggesting the need for reinforcement. In one instance <Fe97> the collar protrudes slightly beyond the surface of the disc, like the example from Biddenham Loop, Bedfordshire (Duncan 2008). An incomplete disc from a small cremation cemetery at Maldon Hall, Essex, retains vestiges of a tin solder on the inside surface of the perforation; analysis has suggested that the solder had probably been used to attach a copper-alloy tube or rod (Lavender 1991, 206-208).

These discs have not been found in large numbers; most examples have been recovered from cremation burials (Aylesford–Swarling Type) and domestic deposits of late Iron Age date and they appear to be concentrated in an area south of the Wash and the Severn (Duncan 2008, Fitzpatrick 2013). Recently a further two examples have been recovered from a late Iron Age cremation cemetery at Wootton, Bedfordshire (awaiting full report, evaluated in Sharrock 2017).

Identification of these discs is somewhat problematic and their function is at present unknown. However, it has been suggested that the presence of the tubular "collar" may indicate that the disc was meant to rotate (pers. comm Dr Graham Morgan, Conservator). Suggestions for use include a rotating knife for craftwork (Wardle *et al.* 2006, 18), a razor or belt fitting (Hill *et al.* 1999, 257) and a measuring device or knife for specialised use (Duncan 2008). For a brief discussion and further examples see Duncan (2008, 223), Hill *et al.* (1999, 256) and Lavender (1991). Only one comparable find is known from continental Europe, which strongly suggests that these objects were an insular innovation of the late Iron Age in southern England (Fitzpatrick 2013).

CHARCOAL

BY DANA CHALLINOR

A selection of the charcoal from cremation burials and *busta* were examined for comparison to the site M1A assemblages (see Chapter 4). The material was chosen from three urned burials from Site F, ten unurned burials from Site H, and five *busta* also from Site H. Non-funerary contexts from pits were also assessed for comparative data, but the material in these contexts was particularly scant and poor. Consequently, not all samples were productive enough to merit full analysis (Fryer 2016, tables 61-62).

The aim of the analysis was to characterise the fuel used for cremation burial, to determine if the results from Site M1A was replicated, and to explore any differences in burial types that might indicate variations in status or demography.

The cremations reported on here indicate a preference for oak for the funeral pyre, albeit with the occasional use of other wood fuels. The *busta* do not show any variations in status and the funerary fuel use is relatively consistent across all burial types. No significant links were found between anomalous assemblages and gender/age or phase, suggesting that other factors (practical or ritual) may have influenced fuel wood selection. The deposition of charcoal within cremation burial urns appears to differ from the Site M1A evidence, with less pyre charcoal present; in general, however, the results from funerary assemblages at both sites were extremely similar. The quantity of oak charcoal indicates that mature oak woodland was available in the 1st centuries BC-AD; however, supplies may have been reserved and/or managed for cremation burial purposes, since the Site M1A evidence for non-funerary contexts indicates that hedgerow/scrub type taxa were generally used for domestic fuel.

CHARACTER AND COMPOSITION

The results by fragment count are presented in Tables 5.6-5.7. Seven taxa were identified, all of which were consistent with native species; beech, oak, hazel, poplar/willow, *Prunus* sp. (blackthorn/cherry), Maloideae (hawthorn, crab apple, whitebeam etc.), and ash. All but two were present in charcoal from Site M1A (see Chapter 4). The new taxa from the A5–M1 link road were beech, found in urned cremation burial F[320], which is a large woodland tree favouring calcareous soils; and poplar/willow (found in non-funerary related pit F339), trees of varying size that cannot be distinguished anatomically and prefer wet ground habitats. Some additional taxa were recorded in the identifications of charcoal for radiocarbon dating, but not in samples contemporary to the funerary evidence (Poole 2016).

The condition of the charcoal was variable, with particularly poor preservation in the samples from Site F. Much of the material, especially the oak, was heavily comminuted, which limited analysis of maturity, and many fragments exhibited high levels of vitrification. Insect tunnels, small and rounded in shape, were recorded in Maloideae fragments from cremation burial H[475].

URNED BURIALS FROM SITE F

The charcoal from these burials was notably scant and small in size, indicating that little of the pyre debris was included with the bone deposition. This is in contrast to the results from Site M1A, where several of the urned samples produced very rich charcoal assemblages, with large fragments. A possible explanation for the richness

Table 5.6: Charcoal from urned cremation burials, Site F

Burial	**F[221]**	**F[237]**	**F[320]**
Age/gender	**sub-adult**	**adult**	**?female adult**
Beech	-	-	14
Oak	30(sh)	23(s)	8(r)
Alder/hazel	-	-	1
Maloideae	-	-	2(r)
Totals	**30**	**23**	**25**

s=sapwood; h=heartwood; r=roundwood;
(few fragments only)

Table 5.7: Charcoal from unurned cremation burials and *busta*, Site H

Taxa	unurned cremation burials									*busta*				
	H[81]	H[475]	H[518]	H[606]	H[608]	H[610]	H[612]	H[614]	H[636]	H[708]	H[632]	H[634]	H[644]	H[477]
Oak	30(sh)	1	27	28(s)	44(shb)	29(hsr)	30(s)		30(sr)	4	50(sr)	50(shb)	50(shb)	30(sh)
Hazel	-	-	-	-	-	-	-	-	-	7(r)	-	-	-	-
Alder/hazel	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Prunoideae	-	1	-	-	-	-	-	-	-	4	-	-	-	-
Maloideae	-	28(r)	1	-	-	1	-	1	-	12(r)	-	-	-	-
Ash	-	-	-	-	3	-	-	29(rsh)	-	-	-	-	-	-
Bark	-	-	2	2	3	-	-	-	-	-	-	-	-	-
Totals	**30**	**30**	**30**	**30**	**50**	**30**	**30**	**30**	**30**	**30**	**50**	**50**	**50**	**30**

s=sapwood; h=heartwood; r=roundwood; b=burrwood; (few fragments only)

of those deposits is the selection process prior to burial of token deposits against the accidental inclusion of pyre debris with the bone. The act of burning was important in Roman offerings to certain gods, as seen in domestic votive offerings in Pompeii where deposits of charcoal and plant remains were deliberately buried in gardens (Robinson 2002).

Two assemblages from F[221] and F[237] were exclusively composed of oak, while that of F[320] was more diverse in character (Table 5.6). These have a date range of 30BC–AD45, with cremation burial F[221] within the 1st century AD; this was also the only furnished burial to undergo charcoal analysis. The limited data for this feature suggests similar fuel use patterns to F[237] and to the majority of the unurned burials from Site H. The assemblage from F[320] is significantly different and it is interesting that this burial was a probable female, and the only sample to produce beech charcoal. Beech wood provides a high calorific fuel, but is not extensively found in charcoal deposits before the Anglo-Saxon or medieval periods. However, it would have grown in the calcareous soils of the area and was identified in the charcoal assemblage from a 1st-century AD cremation burial from Dunstable (Austin 2010). The fact that it is not widespread in use at either Dunstable or here suggests that it cannot have been ubiquitous and/or was generally avoided for fuel use.

UNURNED BURIALS AND BUSTA FROM SITE H

The unurned burials generally produced more abundant charcoal than the urns, with especially large assemblages from the *busta*. Oak is overwhelmingly dominant in the assemblages, representing 82% of the identified material; it was the sole taxon identified from the *busta* and was predominant in seven individual assemblages from unurned cremation burials (Fig 5.46). Three burials produced different assemblages, amongst which H[475] and H[614] exhibited single taxon dominance of Maloideae and ash respectively. The use of oak and ash is not unusual since it provides the high heat necessary for efficient cremation processes and is well attested at other sites (see Chapter 5). The use of Maloideae is less common but is replicated in the results from Site M1A. The insect tunnels in the Maloideae from H[475] are typical of wood-boring beetles that commonly inhabit timber structures or artefacts (M Robinson, pers comm). This might suggest that pyre goods or re-used wood were present. Burial H[708] contained a more mixed charcoal assemblage, but no relevant links to age or gender could be determined. All the burials, including the *busta*, contained adult remains, with only one burial, H[612], sexed as a possible male (and fuelled by oak).

The *busta* were the least diverse (Fig 5.47). Although only a small proportion of the material was examined, it is clear that these assemblages were extremely rich in oak, with some heartwood and burr wood recorded. This suggests that mature trees were utilised and this is significant as, at both this site and Site M1A, the fragments of confirmed sapwood were more numerous than mature wood. Beyond that observation, there was no evidence to suggest high status or to indicate the remains of pyre goods, as seen with the possible remains of a funerary couch in an isolated *bustum* at Biddenham Loop (Challinor 2016). The results from the present *busta* are, however, consistent with the pyre assemblage from Site M1A and a *bustum* from Dunstable (Austin 2010), both of which were entirely oak.

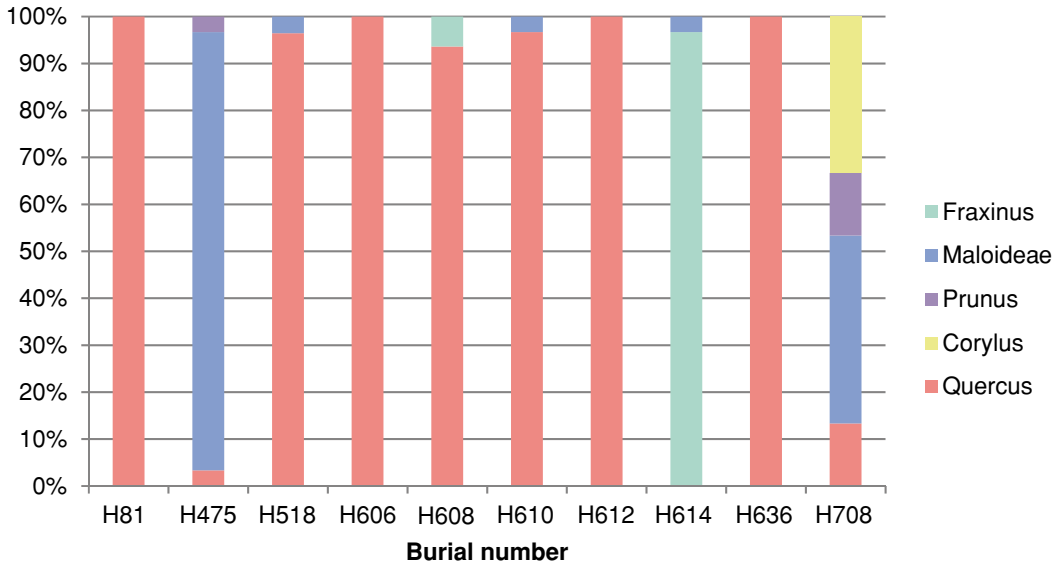


Fig 5.46 Composition of charcoal from unurned burials, excluding *busta*, based upon fragment count (N=313), Site H

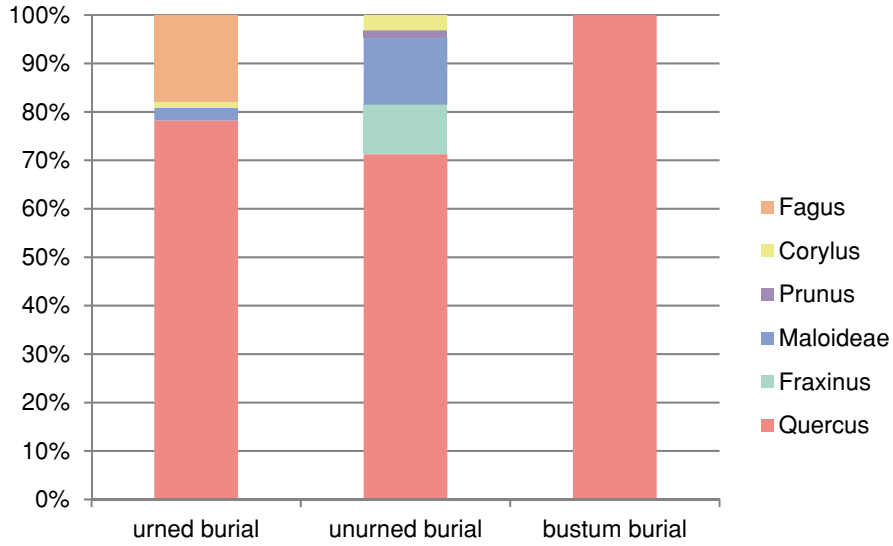


Fig 5.47 Comparison of charcoal from funerary contexts, based upon fragment count (N=572), Site H

Charred plant macrofossils and other remains
by Val Fryer

A total of 43 samples from late Iron Age/early Roman cremation burial deposits were processed and assessed (Fryer 2016, tables 62-63, 66). None of these flots produced material worthy of quantification and further examination. The late Iron Age/early Roman funerary deposits are limited in scope and volume, and it is impossible to expand on the understanding of local burial practices from this data. However, it would appear that the pyres, which were largely built of wood, utilised dried herbage as tinder or kindling.

Cremation burial deposits from Site F

Nineteen assemblages were recovered from burial pits and/or cremation burial urns and, in contrast to the flots from Site H, all except one contained moderately well-preserved wheat grains, with oats and barley also occurring within the assemblage from cremation burial F[320]. Chaff was absent and herbaceous seeds very scarce. Although ritual deposits are recorded within contemporary cremation burial deposits like those from the former Ministry of Defence site at Garrison Urban Village, Colchester (Fryer 2006), it is thought that the Site F remains derived from material accidentally included within the pyres, or from the fuel used during burning. Although charcoal is present throughout, the density of material is surprisingly scarce, suggesting that the cremated remains were sorted prior to interment.

Cremation burial deposits from Site H

Although many of the 22 assemblages are small, 0.1 litres or less in volume, flots from *busta* were much larger, up to 0.7 litres. Most are principally composed of charcoal and/or charred wood fragments, with other plant macrofossils occurring very infrequently. The charcoal is mostly highly comminuted with a few larger fragments and many have a distinct flaked appearance, indicative of very high temperatures of combustion. Occasional grains of barley and wheat were noted along with chaff and seeds of grassland herbs and charred root/stem fragments, but it is thought most likely that these are largely derived from materials which were burnt *in situ* beneath the pyres or from the use of processing waste and dried herbage as tinder or kindling. There is nothing to indicate than any of the remains were placed as votive offerings alongside the bodies of the deceased.

Burial deposits from Site Q

The content of the cremation burial flots were scant, except for charcoal, which was in similar condition to that from Site H. Inhumation burial Q[1008] produced a small quantity of burnt sheep mandible from a 2-6 month old lamb. However, this material, along with a small number of cereal grains, weed seeds and nutshell fragments, is of dubious ritual significance, and may all be derived from midden waste in the top fill of the underlying ditch.

Faunal remains
by Rebecca Gordon

Faunal deposits associated with the funerary remains at Site F

The animal bone from the Roman period at Site F consist of bone elements found within a small cremation cemetery, which may also be partly residual. There were 62 bones from 11 cremation burials. These were recovered both by hand and from sieved samples. The animal bones were in good condition. Butchery was noted on two specimens and one cattle radius displayed signs of carnivore gnawing.

The species present were cattle, sheep/goat, pig, dog, cat and mole. Table 5.8 provides the range of taxa and elements that were recorded from each cremation burial. The majority of the remains were from main domesticates based on teeth and post-cranial elements. Non-food animals included a cat mandible and dog canine. Although the discovery of cat bones in Roman burial contexts is not unusual (Maltby 2010, 32-34), this cat mandible had a cut mark typical of skinning. In burial F[224], a pig atlas had a cut mark around the arcus ventralis, which suggests that the animal's throat was slit. It may be worth considering whether this animal was deliberately killed for this funerary rite. The same burial had caudal vertebrae from an unidentified medium-sized mammal and a small rodent femur. Pit F[347] had the remains of an articulating sheep/goat thoracic and cervical vertebrae, sternum, humerus, radius and rib; all derived from the same specimen with a cut mark on the medial side of the distal end of the humerus. Based on the fusion evidence the animal was *c.*12 months old at death. Some of the animal bones represented accidental intrusions such as the mole and rodent bones, and it is possible single elements such as loose teeth may be residual.

Part of the assemblage may represent food offerings associated with the funerary practices on site, such as joints of meat. The occurrence of the pig atlas and young lamb provide insight into the importance of animals and their role in Roman funerals. Animal remains have been found in Roman cremation burials at Site H on the A5–M1 link as well as at Broughton Manor Farm, Milton Keynes (Strid 2014, 230) and Victoria Road, Winchester (Maltby 2010, 32-35). They had a similar range of species, although pig and domestic fowl were more common at the former whereas the latter had a greater

Table 5.8: Taxa and elements associated with the Roman cremation burials, Site F

Context	Taxa in the burial	Comments
F[224]	Pig atlas, caudal vertebrae of an unidentifiable medium mammal and small rodent femur	The atlas has a cut mark caused by the throat being slit. The caudal vertebrae may be ?pig
F[226]	Fragments of cattle radius, pig scapula, sheep/goat horn core, cattle mandible and mole	Mole intrusive. Cattle mandible, age 8-18 months
F[228]	Pig metacarpal and ulna fragment	-
F[230]	Loose sheep/goat tooth, mole and caudal vertebrae of a unidentifiable medium mammal	-
F[236]	Loose sheep/goat tooth	-
F[238]	Sheep/goat astragalus and loose tooth	-
F[272]	Fragment of sheep radius and pig cervical vertebra	-
F[319]	Loose sheep/goat teeth	-
F[321]	Cat mandible	Cut mark on jaw, possible skinning
F[347]	Sheep spine (thoracic and cervical vertebrae), sternum, humerus, radius and rib	Unfused vertebrae plates, other elements unfused or fusing. Estimated age *c.*12 months
F[349]	Dog canine, sheep premolar and sheep metapodial fragment	-

range of species including the main domesticates, horse, domestic fowl, goose, cat, dog and hare (Strid 2014, 231; Maltby 2010, 32).

Faunal deposits associated with the cremated remains at Site H

Articulated remains included a juvenile pig spine from burial H[3015]. The pig spine was fragmented, which made it difficult to observe butchery marks and identify each vertebra. However, it was clear that this side of pork included the neck and loin alongside Roman fine wares and probably symbolises a ceremonial meal or food for the dead. As mentioned above articulated pig vertebrae were also found at Broughton Manor Farm, Milton Keynes, in the Roman cremation deposits, following the same cultural practice (Strid 2014, 231). Three other examples were found at Biddenham Loop (Luke 2008).

Human remains

by Chris Chinnock

This report contains the results of the complete osteological analysis and discussion of the Iron Age to Roman human bone assemblage, which comprised 42 deposits of cremated human bone, two inhumations and six contexts containing disarticulated human bone. Analysis was limited by the small sample size and incomplete nature of the remains. Human remains of these periods are relatively uncommon in the county, and this assemblage adds significantly to the corpus of information available in the region.

Nature of the sample

Small amounts of disarticulated early Iron Age material are recorded, but the bulk of the assemblage is of the late Iron Age/early Roman period. A smaller amount of material dates to the end of the Roman period; a quantity of disarticulated human bone came from a shallow plough-damaged charnel burial pit at Site F. An additional nine Saxon inhumations from Site H are discussed in Chapter 7.

Late Iron Age/early Roman funerary evidence

A small cremation cemetery of ten burials, comprising fifteen urned deposits of cremated bone and a single unurned deposit lay on a north-facing slope at Site F. Analysis of the cinerary urns suggested that the cremation cemetery was in use from the late 1st century BC to the mid 1st century AD. The majority of these burials comprised a single deposit of cremated human bone. Two pits contained multiple deposits, which may reflect the burial of several individuals.

A larger group of 21 unurned cremation burials and one that was urned came from Site H. Five burials were described as *busta* on the basis of their elongated shape in plan and the quantity of charcoal recovered. The funerary site was in use between the late 1st century BC and the early 2nd century AD. Two unurned cremation burials were located in the south-eastern part of the site, and two to the north. The majority of the main burial group lay within an enclosure and was located at the convergence of a number of trackways and enclosures in use prior to the conquest.

Three urned cremation burials and two inhumations were excavated at Site Q. Two of the cremation burials and one of the inhumations were in close proximity. The third cremation burial lay independently to the north-east, and a later inhumation burial belonging to a child was at the edge of the excavation.

A shallow plough-damaged charnel burial pit from Site F contained the remains of at least five individuals that had been scattered through the ploughsoil. The bone itself dates to the very end of the Roman period

Preservation and completeness of inhumations

The inhumed remains were assessed for overall bone preservation and scored on a three-point scale from good to poor (Connell and Rauxloh 2003, revised 2007). The incomplete and fragmentary nature of the inhumation burials prevented metric measurements and estimations of stature and skeletal indices.

Both inhumation burials from Site Q showed moderate levels of bone preservation had suffered a degree of post mortem damage and fragmentation. The adult from burial Q[45] had 25–29.9% of skeletal elements present and the sub-adult from burial Q[1008] was 20–29.9% complete.

Disarticulated early Iron Age remains

Three fragments of sub-adult humerus were recovered from pit D[1212]. The size and morphology include those of a neonate. The bone has an overall MNI of 2, one unsexed adult and one unsexed sub-adult.

Two fragments of disarticulated human skull were recovered from layer D[1231], above the pit. This comprised a single fragment of right parietal bone and one fragment of occipital bone, both adult, presenting an overall MNI of one. Sex estimations were not possible.

A single fragment of frontal bone was recovered from pit G[1516]. Additionally, a residual fragment of occipital bone was recovered from ditch G[2052]. The MNI for each context is one. No demographic or metric data could be assessed for the skull fragments and no pathological lesions were observed.

The deposition of isolated skull fragments is well attested in Iron Age contexts and they have often been interpreted as 'special deposits' and are often associated with or close to agricultural processes/ features (Madgwick 2008).

Late Iron Age/early Roman inhumations

Inhumations

Analysis of the human bone identified one adult male, Q[45], aged ≥46 years at death and a juvenile, Q[1008], aged *c.*4.5 years Q. A tooth taken from the adult male has been carbon dated to the late middle Iron Age and therefore pre-dates the two adjacent cremation burials (205-85BC; 95% confidence).

The dentition of one sub-adult with 20 deciduous teeth and one adult with 21 permanent teeth were observable at analysis. Dental calculus was present in the dentition of both individuals. Sub-adult Q[1008] displayed mineralised plaque deposits on eight teeth. Adult Q[45] displayed cavities affecting three teeth and calculus on one tooth. Whilst an overall increase in the rates of dental disease has been noted during the Roman period, dental disease such as calculus and dental caries, were not uncommon during later prehistory (Roberts and Cox 2003, 101, 134).

Degenerative spinal joint disease was present in adult male Q[45] and comprised moderate osteoarthritic changes to the atlanto-axial articulation between the first and second cervical vertebrae.

The sub-adult, aged 1-5 years, was separated by some distance from the other remains and the grave/feature was cut into the upper fills of a ditch which has been securely dated to the latter part of the 1st century AD. This individual appeared to have been placed into a small pit in an upright crouched position (Fig 5.42). The placement of the child in such a position would have required a certain degree of mobility and it is assumed that burial took place immediately before or after rigor mortis had occurred. Subsequent decay and collapse of the skeleton reduced the remains to a semi-articulated and tightly flexed position. No other examples of an infant buried in this manner, in this period, could be found. It remains unclear whether this funerary arrangement marks the burial as 'deviant'. Examples of characteristic 'deviant' burials have often been recorded in the upper fills of boundary and enclosure ditches of this period (Murphy 2008).

Late Iron Age/early Roman cremated burials

Cremated human bone

A total of *c.*13.1kg of burnt human bone was recorded. A summary of the overall and average weights from each site is given in Table 5.9. The weight of each individual context is presented in Fig 5.58. Two instances from

Table 5.9: Weights (g) of cremation deposits by site

	Site F	Site H	Site Q	All sites
Total	6,172.30	5,441.10	1,488.70	13,102.10
Average	385.77	236.57	496.23	311.95
Max.	1,190.60	917.90	881.80	1,190.60
Min.	0.10	0.90	56.80	0.10

Site F exhibit multiple contexts and relate to two pits with several deposits of cremated human bone.

Although fragmentary, the burnt bone was relatively well preserved. While the majority of the assemblage showed better survival of the outer cortical bone, context F[321] displayed much better preservation of the spongy internal trabecular bone than that observed in the rest of the assemblage. Several of the burnt bone deposits were less than 20g. The weight of bone present was heavily influenced, in some cases, by the level of truncation of the burials.

Table 5.10: Pits containing multiple deposits of cremated human bone

	Cremated bone deposits	Combined weight (g)
F[225/229]	F[226], F[228]	752.1
F[348]	F[349], F[351], F[353], F[355], F[357], F[394]	2261.1

Each deposit comprised the cremated remains of at least one individual and no evidence of repeated elements or demographic factors were identified to indicate the presence of multiple individuals. However, two burial pits F[225/229] and F[348] contained multiple deposits of cremated human bone (Table 5.10), and it remains possible that these burials contained the remains of more than one individual. This is particularly true of pit F[348] where the total weight of the cremated human bone was 2,261.1g. The average weight of modern adult cremations has been shown to range from 1,001.25g to 2,422.5g with an average of 1,625.9g (McKinley 1993, 285).

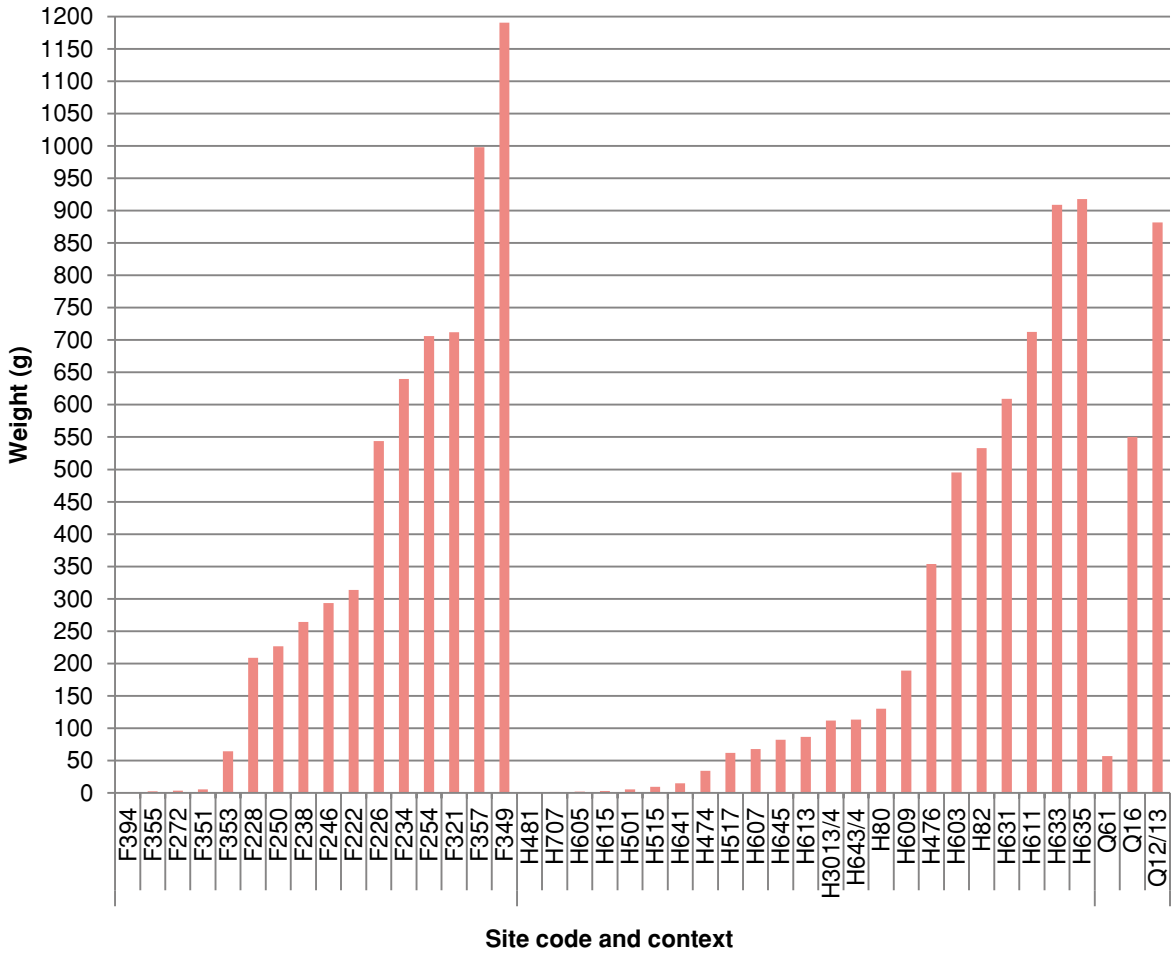


Fig 5.48 Total weight (g) of cremated bone by context

DEMOGRAPHIC INFORMATION

Of the 42 discrete deposits of cremated bone, 71.43% were estimated to be the remains of adults. However, this number is inflated by the possibility of multiple deposits belonging to a single individual. Observations of dental attrition on a single molar crown in burial F[233] allowed for a refined age estimate of 25-45 years at death.

Three sub-adults (7.14%) were identified within the assemblage on the basis of dental development and the presence of billowed articular surfaces, characteristic of unfused sub-adult joints. In burial H[477] there was as an individual aged 1-5 years at death.

The remaining nine deposits (21.43%) of cremated bone could not be assigned to an osteological age category, due to the severe fragmentation and small quantities of surviving bone.

Three deposits (7.14%) of cremated bone are sexed. Remains in cremations F[233] and F[320] were categorised as possible females. One deposit (2.38%) from Site H was categorised as a possible male based on the presence of a robust external occipital protuberance visible on the bone.

PATHOLOGY

The cremated bone from burial F[233] contained an unsided maxillary molar, which displayed a thin line of calculus on the lingual and mesial/ distal surface. Remains in burial H[634] contained a 2nd/3rd maxillary molar crown, with carious lesions on both the mesial and distal surfaces of the tooth. Both caries appeared to affect the enamel only.

Vertebral pathology was noted in context F[254] from cremation F[253], where new bone formation was present around the margin of the articular surface of the odontoid process on the second cervical vertebra.

Four contexts (9.52%) displayed evidence of non-specific infectious bone changes; one from Site F and three from Site H. In all four cases this comprised well-healed striated lamellar new bone on indeterminate fragments of long bone diagnostic of inflammation of the periosteum (periostitis).

PYRE TECHNOLOGY AND RITUAL

The colour of burnt bone represents the degree of oxidation which occurs on the pyre and is a result of both the temperature and availability of oxygen during the cremation process. Most of the cremated bone was a uniformly white/off-white colour indicating almost complete oxidation, and cremation at temperatures in excess of 600°C (Holden *et al.* 1995a-b). However, a number of contexts exhibited slight to moderate variability in colouration (Table 5.11). The presence of occasional charring of the bone suggested that some cremations may not have been as fully efficient as others. Cases that displayed colours ranging from black and grey through to blue/ grey/white may be representative of differential burning environments within the pyre with lower temperatures.

FRAGMENTATION AND DEHYDRATION

A maximum fragment size of 99.4mm was recorded from context F[357] of urned cremation F[348]. The estimated mean fragment size ranged from 5-40mm, 30 contexts (71.43%) had an average fragment size of 25mm or less. Average estimated mean fragment size was calculated for the whole assemblage (Fig 5.49). This clearly showed that overall fragment sizes were larger in the urned deposits than in the unurned deposits, reflecting the protected nature of the burnt bone contained within vessels.

Table 5.11: Colour of the burnt bone

Colour	**Total**
100% white/off white	1
50% white/off white, 10% light blue-grey, 40% charred	1
50% white/off white, 10% light blue-grey, 40% unburnt	1
50% white/off white, 40% charred black, 10% light blue-grey	1
60% white/off white, 20% charred black, 10% light blue-grey, 10% unburnt	1
60% white/off white, 20% light blue-grey, 20% dark blue-grey	1
60% white/off white, 35% charred black, 5% light blue-grey	1
60% white/off white, 40% charred black	1
70% white/off white, 20% dark blue-grey, 10% charred black	1
70% white/off white, 30% light blue-grey	1
90% unburnt, 10% white/ off white	2
90% white/off white, 10% light blue-grey	1
90% white/off white, 5% light blue-grey, 5% dark blue-grey	1
95% white/off white, 5% dark blue-grey	1
95% white/off white, 5% light blue-grey	27
Total	**42**

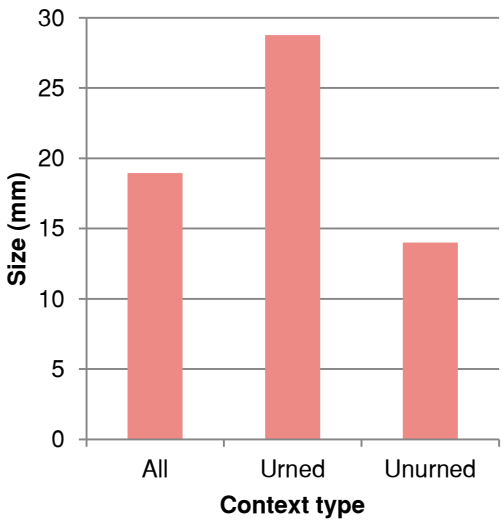


Fig 5.49 Average estimated fragment size (mm)

Longitudinal, transverse and spiral fractures were present throughout the assemblage and occasional warping of the bone was observed in some of the larger fragments of burnt bone. The implications of fracture patterns and bone warping can be difficult to interpret although research has suggested that the burning of dry bone produces longitudinal splitting that follows the stress lines of the bone and burning of fleshed bone tend to exhibit more warping, irregular longitudinal splitting and transverse fractures (Uberlaker 2015, 219).

A large proportion of the burials had suffered varying degrees of truncation. Of the 35 identified burials, comprising 42 deposits of cremated human bone, 24 (68.57%) were described as having suffered moderate to severe truncation. This level of truncation across all sites is likely to be a contributing factor to fragment size and the overall sample weight for each deposit of burnt bone.

All areas of the skeleton were represented, but not in all deposits. The degree of truncation compromises interpretation of any possible distribution patterns. A clear bias was observed in the identification of skull fragments over other areas of the skeleton (Fig 5.50). The distinctive lamination of the cranial vault and meningeal impressions enable even small fragments to be easily identified and explains the bias towards this area. There were a small number of tooth fragments present, although none were identifiable to the exact tooth position. The bias toward skull fragments in the cremated material was much more marked in the unurned deposits when compared to urned deposits; a pattern which has parallels at several other sites (McKinley 1994).

A high frequency of contexts contained very little burnt bone. Eighteen, 42.86% of contexts, contained less than 100g of burnt bone and of those, ten (23.81%) were less than 10g, one of which was intrusive in the top fill of a middle–late Bronze Age pit, H[482] (Fig 2.10). Seven contexts (16.67%) contained no fragments larger than 10mm. This may reflect a preference toward token deposits of burnt bone rather than entire individuals.

DISARTICULATED LATE 4TH- TO 5TH-CENTURY REMAINS

A shallow pit at Site F containing a deposit of charnel, F[906], had been plough-damaged, scattering bone elements through the overlying soil. The preservation

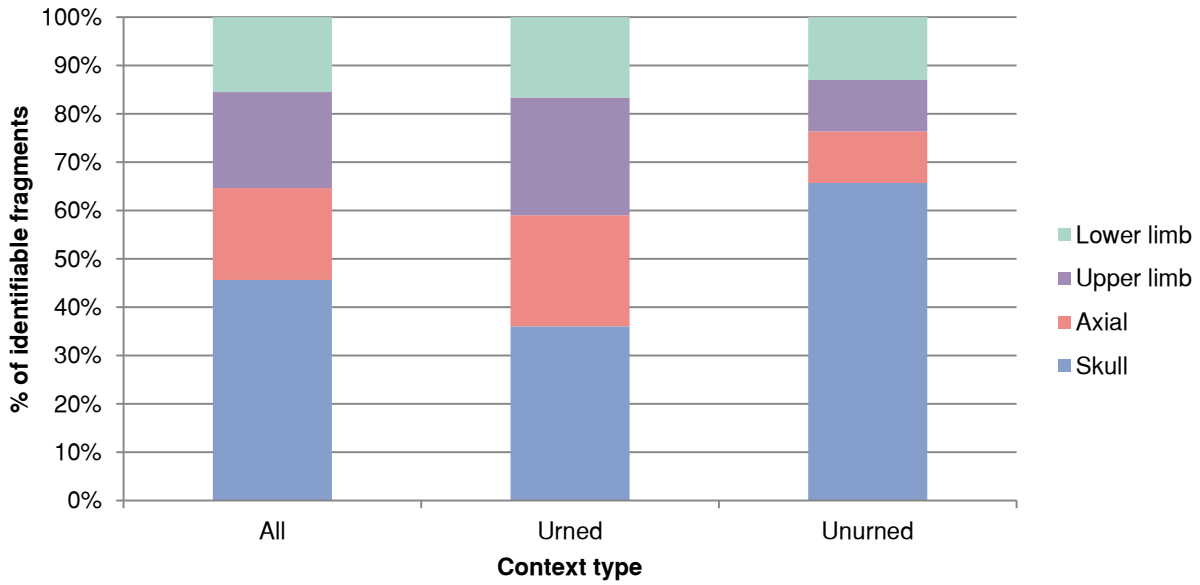


Fig 5.50 Distribution of identifiable fragments by context type

and completeness of the human bone was better in this assemblage than in the inhumations. An overall MNI of two adults and three sub-adults was estimated.

The majority of bones were long bones of indeterminate sex, elements of an adult skull were probably female and a fragment of adult pubis was female, so at least one of the two adults was female. Dental attrition in the mandibular teeth attributed to a probable female indicated an age of 26-35 years at death. The remainder of the skeletal remains were adult but could not be aged more accurately. Macroscopic assessment of the morphology and size of a fragment of ilium and assorted long bones suggested that one sub-adult was a child of 1-5 years and at least two others may have fallen into the 6-11 year, or 12-17 year categories.

Observations of dental pathology on the probable female skull included one periapical abscess on the left mandible below the 1st molar tooth position, one periodontal abscess associated with the second molar on the right maxilla and moderate deposits of calculus throughout.

A radiocarbon date for produced a date range suggesting the bones were deposited in the late 4th or early 5th century AD (see below; Table 5.12). It is possible that this collection of skeletal material reflects a secondary deposition from another location, but the events leading to the final deposition of the human bone remain unclear.

Discussion

The comparison of the cremated human bone data to other contemporary sites needs to be viewed in light of the moderate to severe truncation noted across the majority of the cremation burials. Nevertheless, comparisons have been attempted with a selection of sites containing cremation burials dated to the late pre-Roman Iron Age and early Roman periods.

Late Iron Age to early Roman cremated remains

Cremation burials were present at three sites, F, H and Q. Combinations of funerary traditions were employed including urned/ unurned cremation burials, furnished/ unfurnished, token deposits and several combinations therein. Very similar patterns of funerary traditions have been recorded at the M1A site (Chapter 4), Broughton, Milton Keynes (Atkins *et al.* 2014), Monkston Park, Milton Keynes (Bull and Davis 2006) and Biddenham Loop, Bedford (Luke 2008; 2016). Most of the burials from Sites F and Q comprised urned burials and all bar one of the burials from Site H comprised unurned burials. Site H also included five examples of possible *busta*, though severe truncation made clear identification these features difficult. Carbon dates for the cremation burials at Site H suggest that mostly they belong to the late Iron Age period with an overlap into the early Roman period.

The comparison of the cremated human bone data to other contemporary sites needs to be viewed in light of the moderate to severe truncation noted across the majority of the cremation burials. Nevertheless, comparisons have been attempted with a selection of sites containing cremation burials dated to the late pre-Roman Iron Age and early Roman periods.

Of the 30 contexts identified as belonging to the remains of probable adults, two were assessed as possible female (2/30: 6.7%) and one as possible male (1/30: 3.3%). This compares with 18.2% (8/44 adults) females and 6.8% (3/44 adults) males at Broughton Manor Farm (Dodwell 2014). A total of three sub-adult individuals (3/42: 7.1%) were identified in the assemblage, compared with 11 sub-adult individuals (11/55: 20%) at Broughton (*ibid.*). Of the remains analysed from M1A, 76% were identified as those of adult individuals and 7% as the remains of juveniles (Inskip 2015). Of the total 45 adult individuals present in the M1A assemblage, a total of nine males and nine females were identified (9/45; 20% respectively) (*ibid*). The higher rate of successful sex estimation at both Broughton and M1A is likely another consequence of the high level of truncation observed in the A5–M1 link assemblages.

Evidence for dental disease (calculus and caries), spinal joint disease and non-specific infection were noted in a number of contexts. These reflect pathological conditions often recorded in other contemporary cremation cemeteries.

The average weight, by deposit, recorded for the whole project was 312g; taking into account the two pits at Site F, which contained multiple deposits of human bone, the average weight by pit was 364g. This compares to an average weight of 603.4g recorded at Site M1A and 687.2g recorded at Broughton Manor Farm (Dodwell 2014). The greater recorded weights at these sites are likely a reflection of the largely undisturbed deposits compared with the often significantly plough truncated burials recorded at the A5–M1 link. Of the cremation deposits recorded at Monkston Park, 83% weighed less than 500g (Powers 2006).

Two cremation burials from Site F contained multiple deposits of cremated human remains. The identified skeletal elements from each deposit were compared for osteological inconsistencies or duplicated elements. None were found and it remains unclear whether the burials represent multiple individuals. Three deposits from excavations at M1A were found to contain multiple individuals (Inskip 2015).

An average of 16.6% of the burnt bone was identifiable to body area, with a range of 0-42.6%. The average is lower than that observed at Biddenham Loop (25.6%; Powers 2016) and much lower than that observed at Kempston, Church End (44%; Boghi and Roberts 2004). This may be accounted for by the number of deposits characterised by very small amounts of bone. Additionally, the high degree of fragmentation often prevented identification of bone fragments. The largest fragment size recorded from the assemblage was 99.4mm from urned cremation (357) (Site F); this compares with 78mm at Monkston Park (Powers 2006) and 97mm at Broughton Manor Farm (Dodwell 2014) and 84mm at M1A (Inskip 2015). From the burnt bone assemblage, 71.4% of the deposits had an estimated average fragment size of 25mm or less with overall estimated mean fragment size for the whole assemblage calculated as 18.9mm. This is much lower than the recorded average fragment sizes from Monkston Park (32mm; Powers 2006) and Kempston, Church End (50mm; Boghi and Roberts 2004).

It is of note that, despite the high recorded level of truncation, there was a clear distinction to be made between the urned and unurned deposits in terms of the average weight and fragment size. Overall the urned deposits contained more bone and had a greater average fragment size. This is likely a result of the largely protected environment that the vessels offered when compared to those deposits which may have been deposited loose or in organic containers. Nevertheless, it is important to recognise that the recorded weights and fragment size are post-excavation figures. The depositional, taphonomic and excavation processes all have a significant effect on the overall weight and fragments size of, particularly, un-urned/un-protected deposits of cremated bone (McKinley 1994, 342)

The majority of the burnt bone from this project was white/off-white in colour characteristic of fully calcined bone. This is indicative of high temperatures in excess of 600°C within the pyre (Holden *et al.* 1995a and b). It should be noted that several other factors such as pyre construction, weather conditions, burning time, position of body on the pyre and soft tissue coverage, may all have an effect on the colour distribution in the final cremation deposit (McKinley 2000). The occasional expression of dark blue, grey, brown and black charring in the current sample may be attributed to any one or a combination of the above factors. For example, fragments of femoral bone were more frequently black, brown or blue in colour due to the greater soft tissue coverage on this part of the body.

RADIOCARBON DETERMINATIONS

Samples were taken from selected funerary deposits in order to provide a broad coverage of the principal burials by area and burial type. Radiocarbon analysis targeted specific objectives outlined in the assessment report (Brown 2016, 93): a minimum of two charcoal deposits from secure pyre or unurned cremation burial contexts within the funerary enclosure, and dating of pit H[3015] which at excavation appeared to be a funerary votive deposit without cremated bone, which was subsequently recovered during sieving.

During compilation of the inventory and description of dated burials, it became apparent that the broad phasing from stratigraphic and morphological analysis of the site was insufficient, and that further dates were desirable in order to clarify the origin of particular otherwise undated burials, mainly those isolated or dispersed from associated contexts, or out of character with the features in the vicinity. The results of these determinations are provided in Table 5.12 and are illustrated in Fig 5.51.

The disarticulated human remains found in non-funerary contexts at Sites D and G are entirely early Iron Age; the radiocarbon dates were obtained to assist in corroborating pottery fabrics with diagnostic sherds from those contexts (see Chapter 3) and assist in providing a date for these stray human elements.

An inhumation burial from Site Q [45] had no datable finds and, although found in proximity to late Iron Age/early Roman features and two cremation burials, there is the possibility that it may be late-middle Iron Age in origin as seen by its radiocarbon date (Beta 446429; Table 5.12). This does not detract from the more general argument for continuity up until *c.* AD70, even as an isolated burial.

Cremation burials and *busta* at Site H were all dated within the same general period of the 1st centuries BC-AD with the exception of cremation burial H[604], which was slightly later AD55–135 cal (95% confidence, 1900±30 BP, Beta 446424). The pattern indicated that the central pyre site operated as a focus for funerary activity, but that interments were made both at the site of cremation and dispersed within other surrounding enclosures. Cremation seemed to be the preferred vehicle of passage for the deceased at all of the contemporary sites; H, Q and Site F. The occurrence of one radiocarbon date in the 1st-2nd centuries AD and at least one other cremation burial from Site H with pottery no later than *c.*AD120 indicates that the use of the cemetery site for burial continued even

Table 5.12: Radiocarbon determinations from contexts containing human bone

Laboratory & Sample no.	Context	Sample details	C13/ C12	Conventional radiocarbon age BP	Calibrated BC/AD intercept *68% confidence* 95% confidence
Beta-456910 A5M1/D1210	pit D[1212]	animal long bone	-21.6 +6.0	2430±30 early IA	510 *730–690/660–650/540–410* **750–685/665–640/590–405**
Beta-456911 A5M1/D1231	layer D[1231]	animal tooth	-22.1 +7.6	2430±30 early IA	510 *730–690/660–650/540–410* **750–685/665–640/590–405**
Beta-458331 A5M1/D1231	layer D[1231]	charcoal (buckthorn)	-25.5	2440±30 early IA	535/525/520 *735–690/660–645/545–415* **755–680/670–610/595–405**
Beta-456917 A5M1/G1512	pit G[1516]	animal long bone	-21.6 +5.6	2460±30 early IA	730/690/660/650/540 *750–685/665–640/590–510* **765–410**
Beta-446429 A5M1/Q43	inhumation burial Q[45]	human tooth	-19.4	2130±30 middle/late IA	170 *200–155/135–115* **345–320/205–85/75–55**
Beta-446423 A5M1/H82	cremation burial H[83]	charcoal (oak)	-25.5	1980±30 late IA/Roman	AD25 *20–10BC/AD0–60* **45BC–AD75**
Beta-446424 A5M1/H603	cremation burial H[604]	charcoal (*Prunus* sp.)	-28.0	1900±30 early Roman	AD85 *AD70–130* **AD55–135**
Beta-446420 A5M1/H631	bustum H[632]	charcoal (*Prunus* sp.)	-25.5	2030±30 late IA	40BC *50BC–AD5* **105BC–AD30/40–50**
Beta-446421 A5M1/H633	bustum H[634]	charcoal (oak)	-23.8	2000±30 late IA/Roman	AD5 *40BC–AD30/40–50* **50BC–AD65**
Beta-446422 A5M1/H643	bustum H[644]	charcoal (oak)	-25.0	1990±30 late IA/Roman	AD20 *40BC–AD55* **45BC–AD70**
Beta-446425 A5M1/H3013	cremation burial H[3015]	cereal (wheat)	-26.1	2010±30 late IA/Roman	20/10/AD0 45BC–AD25 85–75/55BC–AD60
Beta-456920 A5M1/Q1008	inhumation burial Q[1008]	human tooth	-19.6 +12.4	2000±30 late IA/Roman	AD5 *40BC–30AD/40–50* **50BC–AD65**
Beta-456912 A5M1/F905	charnel pit F[906]	human tooth	-19.4 +9.7	1630±30 late Roman	AD415 *395–425* **380–435/460–465/490–535**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration

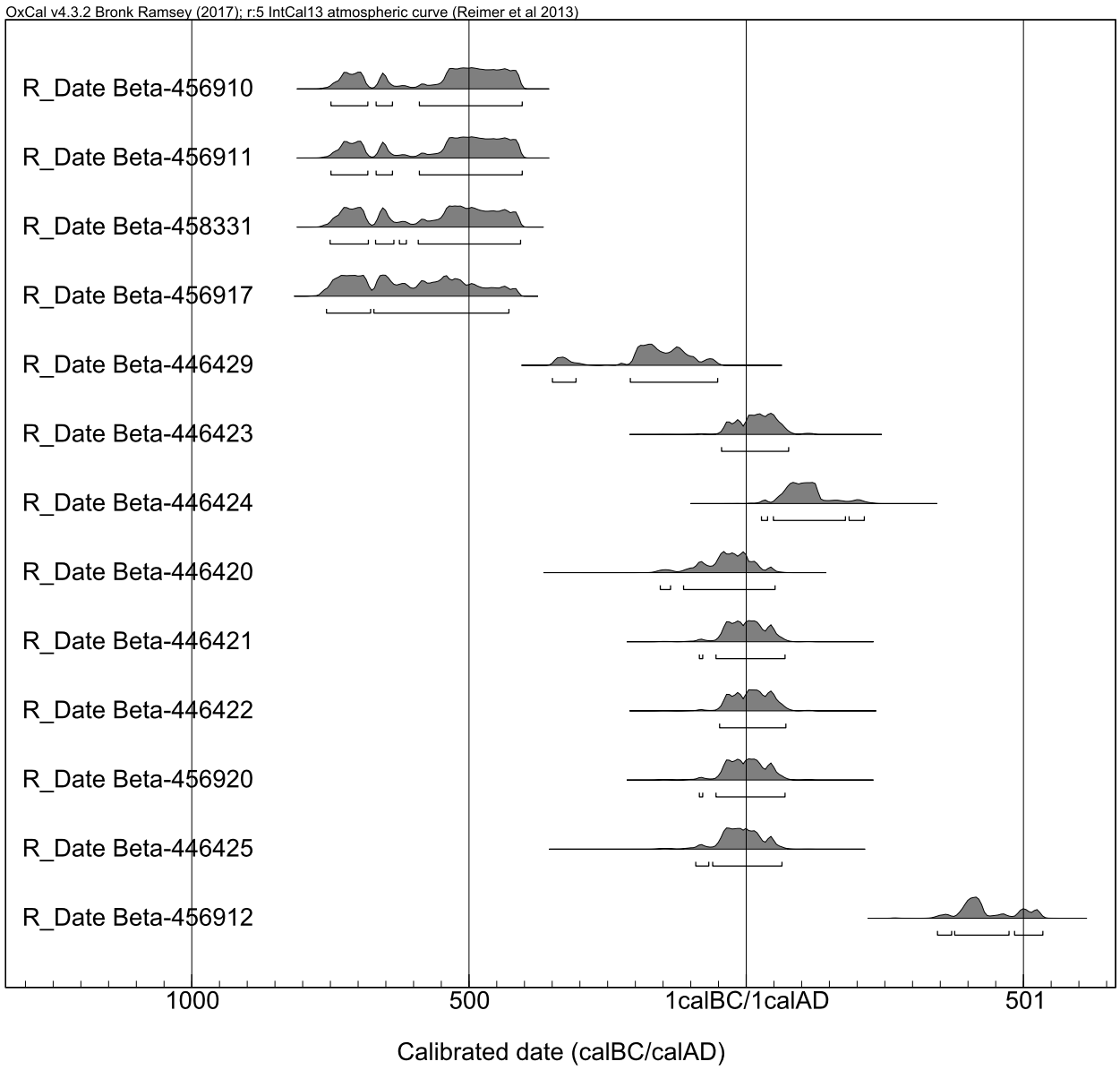


Fig 5.51 Radiocarbon determinations from contexts containing human bone

after the surrounding enclosure ceased to be maintained. This may suggest pyre burning activities had moved elsewhere by AD70 at the latest but that the location was remembered as a burial ground. Even though it was no longer delineated as a cemetery site, as the area had been divided in the post-Conquest by a revised arrangement of boundary ditches, these later burials occurred within the arc of the post-conquest ditch and within the central plot. Such a pattern of deposition is not incompatible with the identity of a family plot and this represents continuity with the more dispersed burials in surrounding enclosures, interred prior to the conquest, which can be perceived along the same lines.

A range of burial types are dated to within the same period in the 1st centuries BC-AD and prior to *c*.AD70. Four types are distinguished: urned and occasionally furnished cremation burials, unurned and generally unfurnished cremation burials, *busta* and one burial containing a joint of pork (pit H[3015]). A strong diversity in contemporary cremated funerary practices is clearly apparent, and this diversity is also expressed through the continued practice of inhumation at Site Q, with burial Q[1008] which was radiocarbon dated to 50BC–AD65 cal (95% confidence, 2000±30BP, Beta 456920) and is in itself unusual in character, being a child buried in a seated position.

Disarticulated human bone lay scattered in later plough soil in the vicinity of a plough damaged pit at Site F; the human bone was dated AD380–435/460–465/490–535 cal (95% confidence, 2770±30BP, Beta 456912).

All of the scientific dates are considered to be reliable, although there are variations in the radiocarbon calibration curve during the early Iron Age that produces a wider range of confidence. The date of inhumation burial Q[45] is considered to lie towards the late Iron Age end of its range.

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

Burial practices in the early Iron Age are not at all understood within the county since no clear form or character to their deposition has so far been identified. Early Iron Age burials have been found as secondary burials in close proximity to Bronze Age mounds (Mortimer 1997), and they occur as stray bone elements in non-funerary features, such as the pits and ditches at Biddenham Loop (Luke 2008; 2016). The occurrence of disarticulated charnel is a theme common to many Iron Age sites and gave rise to the suggestion that four-post structures (widely explained as granaries) may have instead been used for the practice of excarnation (Dyer 1976, 13). Osteological analysis has yet to substantiate this claim for any of the stray bone elements recovered, although it helps to explain their apparent dispersal and the lack of cemetery sites. Unurned cremations from Biddenham Loop were found in close proximity to settlement as isolated interments, and examining isolated or dispersed burial patterns may bring more clarity to the present situation.

Crouched inhumations like the one at Puddlehill that was buried with a horse skull (Matthews 1989, plate 4) are unusual, but appear to be middle Iron Age in date. Crouched burials have also been found in the north of the county, but they are too few to characterise clearly.

A substantial charnel burial pit within the southern entrance of Maiden Bower hillfort contained tile, iron nails and the disarticulated bone elements of *c.*50 individuals implying the reburial of human remains in the final post-conquest years of its use (Hamilton and Pollard 1994).

Late Iron Age burial practice is much more visible from the 1st century BC onwards, and the range and variety of burial practices suggest hierarchies of status and perhaps also cultural variation. The richest are La Tène III style burials (Stead 1976), but by far the most common are cremation burials, which occurred urned and unurned, and furnished with or without grave goods and accessory vessels. The nearest cremation burials of this period were found at Puddlehill (Matthews 1976), Harlington quarry (Dawson 2001) and Court Drive (Edwards 2010), but they have been identified far more widely across the county and surrounding regions. In general, the quality and quantity of accompanying grave goods increases as more typically Roman elements become apparent in the post-Conquest period. By comparison inhumations are far less common during the late Iron Age; the unusual case of a neonate child inhumation accompanied by a foal from Stagsden indicates diversity in burial practice (Dawson 2000). In contrast, examples from Kempston are mundane (Jackman 2004). The range, variety and complexity of contemporary burial practices are a stark contrast to the dearth of evidence that came before.

Many burials come from Romano-British settlement sites as isolated burials or in small cemetery plots, using both cremation burial and inhumation as the funerary practice. Larger cemeteries have been excavated in towns such as at Friary Field, Dunstable (Matthews 1981; Gardner 2004), where inhumation was the preferred method of burial. In most cemeteries of this period however, numerous different rites show the diversity demonstrated in the furnishing of burials with caskets or stone cists, inclusion of a huge variety of grave goods, and even variations in the treatment of the remains after death; post-mortem decapitation, for instance, is a familiar although not common occurrence. In general, the range and diversity of differing practices is apparent in both the form of the burials and the grave goods accompanying them.

Differing burial practices may of course have been afforded to particular members of the same society, and between different gods. Infant burials in particular were often the subject of unusual burial practice which suggests a "complexity of beliefs associated with the youngest members of society" (Moore 2009, 48). Infants were rarely buried within formal cemetery contexts by the Romans, and burials of premature and neonatal infants have often been identified in shallow pits, with domestic refuse in dispersed settlement or agricultural locations accompanied by few or no associated grave goods (*ibid*, 33). This has often been interpreted to mean that infants in this period were disposed of without ceremony, perhaps even clandestinely as the victims of infanticide (Mays 1993; 2000; Mays and Eyers 2011). This position is challenged as further studies have been undertaken to examine child mortality rates, as well as to recognise instances where infant burial may have been afforded a more ritualised treatment. The burial of infants in liminal and spiritually-charged locations may perhaps be an indication that infant remains, rather than being casually or secretly disposed of, were considered something of a conduit for symbolic and spiritual practice and belief (Moore 2009).

Instances of seemingly unconventional burial practices are generally subject to case by case scrutiny. For example, a burial excavated from Dunstable, dated to the 2nd century AD, comprised a cremation burial and parts of inhumations, considered a possible family group, which were buried above an abandoned well (Jones 1972). However, it was shown that disarticulation actually occurred as a result of post-depositional subsidence into the well, overstating the unusual nature of that burial.

Table 5.13: HER data for funerary monuments and burials

Age	HER Ref	Description	NGR	
Neolithic	19939	human burial	502840	225670
Iron Age	15855	cropmarks, pottery and undated inhumation	502200	225600
Anglo-Saxon	14733	possible Anglo-Saxon cemetery	503900	226300
post-medieval	2433	Baptist churchyard, Thorn Farm	499980	224780
post-medieval	6495	Methodist Chapel, Luton Road, Chalton	503190	226280
undated	16172	human rib	499500	224100

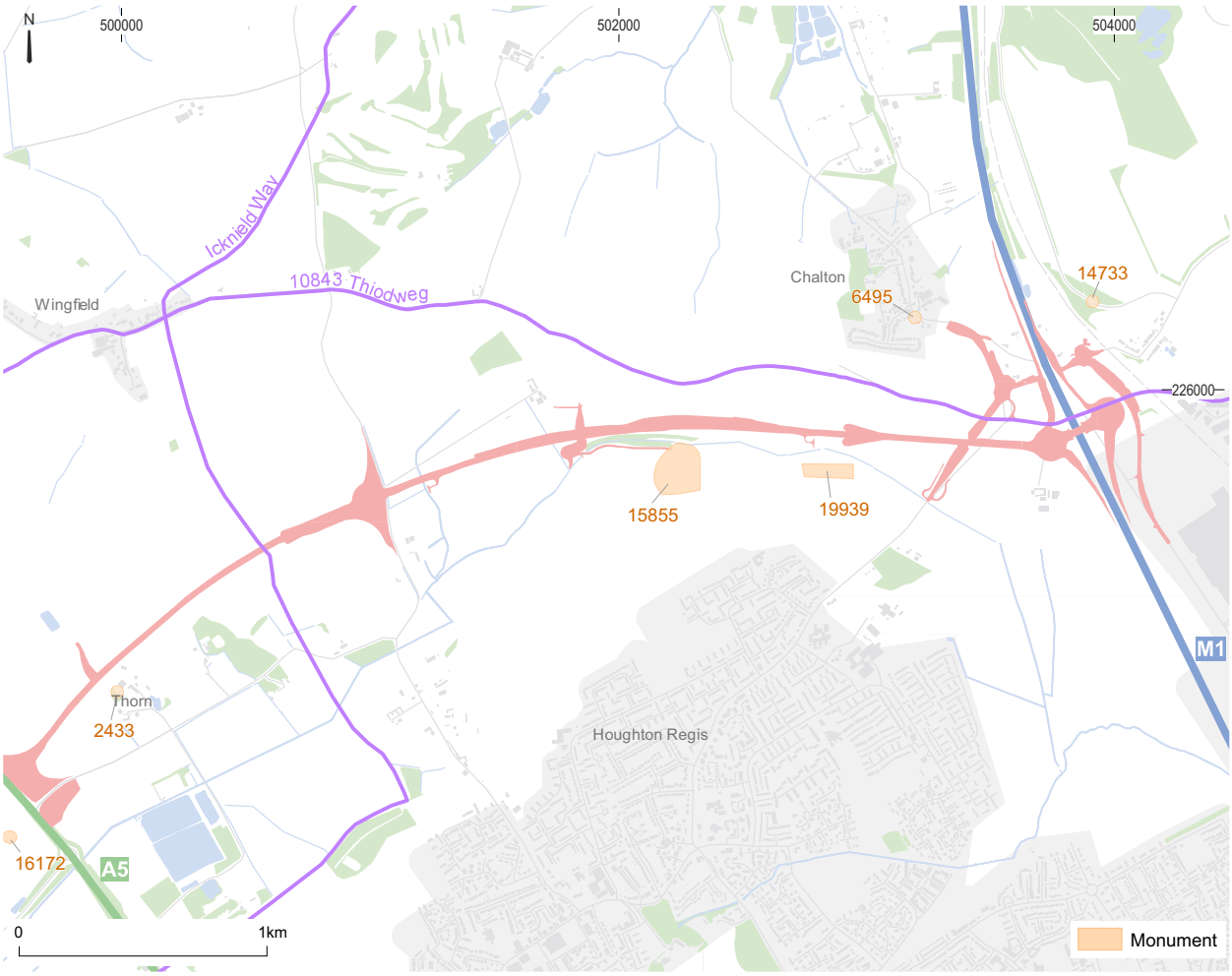


Fig 5.52 HER data for funerary monuments and burials

The sites recorded by the Historic Environment Record (HER) within the 500m wide corridor around the A5–M1 link road notes very few funerary monuments or burials (Fig 5.52, Table 5.13). Even fewer among these have been tested by archaeological fieldwork in recent years.

FUNERARY SITES NEARBY

A crouched Beaker burial of the early Bronze Age was excavated during evaluation of the Houghton Regis North Development, and it is likely that other pits nearby are of similar date (AA 2012a; HER19939).

As part of the same piece of archaeological work the investigation of cropmarks identified enclosures of Iron Age date, together with an undated inhumation (HER 15855), which may be associated with the settlement evidence.

An undated human rib was found in Gib Field, west of A5 Watling Street (HER16172).

Disarticulated remains in Iron Age contexts

Four disarticulated human remains were found: two from Site D in a layer and pit, and two from Site G in a pit and a ditch. Three of these remains were dated to the early Iron Age and the other to the middle to late Iron Age. Cunliffe suggested that, for the Iron Age, excarnation was the liminal stage in the rite of passage, and that burial was the formal completion of the rite (Cunliffe 2005, 554). These rites were not uncommon, and have been recorded elsewhere in excavations as selected skeletal elements placed in features (Carr and Knűsel 1997). Parker Pearson considered that human remains (and animal) may have been initially placed on middens to deflesh, before they were eventually deposited on fields as part of a fertility rite (Parker Pearson 1996, 126-7).

Some of the midden deposits may not have just been scattered on fields but may have also ended up backfilling former features. Webley (2007a, 62-3) noted at the Great Barford bypass that there was a recurring trait through both the middle and late Iron Age associating unburnt human remains with artefact rich 'closure deposits' within boundary ditches, perhaps representing midden material. The work along the A5–M1 link road found that three of the four deposits with disarticulated human remains could similarly be classed as 'closure deposits', associated with a large quantity of artefacts and/or ecofacts. The difference between the A5–M1 link and Webley's evidence along the nearby Great Barford bypass was that the A5–M1 disarticulated remains were located within the closing deposit of pits or as a layer which sealed pits, and not from ditches. At Fairfield Park, Bedfordshire, some 20 skeletal elements were recovered from seven early Iron Age pits and a ditch (Webley *et al.* 2007, 99-100). Other examples of this Iron Age practice include Sandy, Bedfordshire where a human cranium was found with much late Iron Age pottery (Johnston 1974). Further away, a middle Iron Age upper ditch deposit from enclosure 21 at Hardingstone, Northamptonshire comprised a human cranium and large amounts of pottery (Woods 1969).

In the A5–M1 excavations, three of the deposits containing human charnel were dated by both pottery and radiocarbon dates to the early Iron Age. The upper fill of pit G[1516] (pit cluster PCG1) was radiocarbon dated to 765–410 cal BC (95% confidence, 2460±30BP, Beta–456917). Within this deposit was a single fragment of frontal bone associated with 0.73kg of pottery. The other two deposits were in the upper fill of pit D[1212] within pit cluster PCD2, a dark grey to black sandy silty-clay containing three fragments of humerus, probably from a single neonate, along with a significant quantity of pottery (1.37kg), fired clay, daub and animal bone. This gave a radiocarbon date of 750–685/665–640/590–405 cal BC (95% confidence, 2430±30BP, Beta–456910).

A third deposit, layer D[1231], sealed pit cluster PCD2, and within this layer was a single fragment of frontal bone associated with pottery (1.71kg). Two radiocarbon dates produced very similar dates between 750/755–685/665–640/590–405 cal BC (95% confidence, 2430±30 BP, Beta–456911 and 458331). In boundary ditch BD2, G[2052], there was a fragment of skull occipital bone alongside 0.145kg of animal bone, but nothing else.

The disarticulated bone fragments from three of four A5–M1 sites were cranium fragments. The significance of cranium fragments in Iron Age deposits has been discussed as part of the A421 publication where three such deposits were also found (Webley 2007a, 63-4). Webley included a table of cranium deposits found on sites in the south-east Midlands (*ibid*, table 3.2). It concludes that regardless of whether the skulls, "were from ancestors or enemies, the history associated with these objects may have given them considerable significance and power, and acts of ritual deposition in which curated bones were deployed are likely to have drawn on these links to the past" (*ibid*, 64). The cranium fragments from A5–M1 link dating to the early Iron Age in pit G[1516] and layer D[1231] are comparable with four or five early Iron Age examples recorded in Webley's table 3.2. Two of these were from Bedfordshire at Fairfield Park (Webley *et al.* 2007, table 4.2) and Puddlehill (Mathews 1976), one at Great Houghton, Northamptonshire (Chapman 2001), possibly one from Hertfordshire and the furthest away being found at Prickwillow Road, Ely, Cambridgeshire (Atkins and Mudd 2003). At Biddenham Loop three skull fragments within Farmsteads 2 and 3 were found in the upper fill of an enclosure ditch and the fills of two pits (Luke 2008, 44).

The number of skull remains found in middle and late Iron Age sites within the south-east Midlands increases in most areas compared to the early Iron Age period and may suggest such funerary practices were more widespread (Webley 2007a, table 3.2). The Bedfordshire area may be an exception; only eight such examples have been identified from the county. Along with the example from G[2052], three examples of disarticulated cranial elements came from the Great Barford bypass (Timby *et al.* 2007a), two came from Odell (Dix 1979) and two were excavated more recently from upper fills of a ditch and pit at Bridge Farm, Shefford (Finn, in prep).

Middle–late Iron Age inhumation

A single middle–late Iron Age inhumation was found at Site Q. It was a male adult at least 45 years old and had been buried in a supine position with its head at the south-western side with no grave goods. Radiocarbon analysis of a tooth from the skeleton produced a date of 345–320/205–85/75–55 cal BC (95% confidence, 2130±30BP, Beta–446429; Table 5.12). This burial pre-dated two Aylesford–Swarling type cremations, Q[11] and Q[15], found adjacent.

Seven other middle– late Iron Age burials have been found in Bedfordshire: five from Biddenham Loop (Luke 2008; 2016) and two from Great Barford (Timby *et al.* 2007a, 62-63). The first Biddenham Loop publication recorded extensive excavations where up to six settlements were uncovered. A single adult inhumation, in a moderately crouched position was the only recorded inhumation of this period, radiocarbon dated to 415–170 cal BC (95% confidence, 2270± 70BP, Beta–139483) (Luke 2008, 39, 44). The second Biddenham Loop publication recorded four more middle Iron Age inhumations from three settlements (Luke 2016, 188–189). Three of the four burials were crouched and one lay supine and extended.

The known quantity of burials under represents the population level for most of the period, as indicated by the size and quantity of known settlements and hillforts (Madgwick 2008). This is true of most of the country where formal burial was not the preferred funerary practice (Cunliffe 1991, 506). The lack of grave goods from the Site Q burial is a common attribute in burials of this period, especially pit-type burials, although nearly half of graves identified by the early 1980s were accompanied by objects (Whimster 1981, 16–21). One of the seven middle–late Iron Age inhumations from Bedfordshire had grave goods in the form of pottery, probably deliberately placed (Luke 2016, 189). Middle–late Iron Age inhumations occur in low quantities in other counties.

Late Iron Age/early Roman human remains

The excavations along the A5–M1 and M1 Junction 12 produced a significant quantity of late pre-Roman Iron Age to middle Roman cremation remains as well as two Roman inhumations. There were 83 cremation burials collectively, from five separate sites on the A5–M1 (Sites F, H and Q) and also at M1 Junction 12 (Sites M1A and M1B) (Table 5.1). All five excavation sites lay within a *c.*7km distance of each other. The A5–M1 Sites F and H were adjacent settlements only *c.*400m apart. Site Q was further away, *c.*2.5–3km to their south-west. The M1 Junction 12 cemetery, Site M1A, was *c.*5km to the north of the three A5–M1 sites and *c.*1km from the pyre at Site M1B.

The importance of these burials is seen through the number of cremations recovered from Site M1A, which is by some distance, the largest cremation cemetery of this period yet uncovered in Bedfordshire from a single settlement, and also larger than any yet found in the neighbouring counties of Buckinghamshire, Cambridgeshire and Northamptonshire (but not Hertfordshire). The cremations from Site H are the second largest number of cremation deposits recovered from Bedfordshire. At writing the total number of late Iron Age/early Roman cremations recorded in the county was *c.*200, the 83 cremations reported here are close to 40% of those recorded in the county. In addition to the cremations, there were probably two mid 1st to 2nd-century AD inhumations, one each from Sites Q and M1A.

The importance of the cremations is therefore understood only in relation to comparable sites in Bedfordshire and Buckinghamshire. Comparable data is given in Table 5.14; sites containing fewer than six cremations are not included.

The Aylesford–Swarling culture and the Catuvellauni

It is uncertain whether what is now Bedfordshire was claimed by the Catuvellauni or the Trinovante in the 1st century BC and if/where a boundary between the tribes was maintained. Simco (1984, 12) thought the extreme southern part of Bedfordshire may have belonged to the Catuvellauni upon Caesar's expeditions in 55–54BC. This may mean the settlements were at or near the tribal boundaries. By the early–middle 1st century AD all of Bedfordshire was claimed by the Catuvellauni, possibly having expanded their influence under Cunobelin (*c.*AD10–42). Under this expansionist leader the tribe became a major force with which Rome had to contend (Millett 1990, 21).

The influence and use of the new Aylesford–Swarling type burial within the South Midlands was seemingly adopted by both Catuvellauni and Trinovante, unlike other nearby tribes such as the Iceni. The reintroduction of cremation rites took place in the very late Iron Age at a time of cultural change and innovation. Cremation burial became the dominant rite in certain parts of the country, particularly in the heartlands. The Catuvellauni were centred on Hertfordshire, to the south of Bedfordshire, where substantial Aylesford–Swarling type burial grounds have been found such as at King Harry Lane, St Albans (Stead and Rigby 1989) or more than a thousand cremations from various cemeteries in Baldock (Stead and Rigby 1989; Burleigh and Fitzpatrick-Matthews 2010).

Elsewhere in the Catuvellauni and Trinovante lands cremations are found in relatively small numbers (Lavender 1991). Selected comparisons are published

Table 5.14: Comparable late Iron Age/early Roman cremation sites in Bedfordshire and Milton Keynes (after Atkins *et al* 2014, table 4.25)

	No. cremation burials	Total no. funerary vessels	Ave. no. vessels per burial	No. samian vessels	% samian in funerary assemblage	Source
Bedfordshire						
A421 Bypass, Site 4	7	9	*c*.1.3	3	33%	Poole 2007a, 88-90
A421 Bypass, Site 8	19	19	1	3	15%	Poole 2007a, 123; Stansbie 2007, 248-249
A5/M1, Site F	10	20	2	0	0%	This volume
A5/M1, Site H	22	13	*c*.0.6	0	0%	This volume
A5/M1, Site Q	3	3	1	0	0%	This volume
Junction 12 M1A	45**	107	*c*.2.4	7	7%	This volume
Junction 12 M1B	3	0	0	0	0%	This volume
Biddenham Loop	16	38	*c*.2.3	0	0%	Luke 2008 213-
Harlington	?13	?37	*c*.2.8	12	32%	Dawson 2001, 23-26
Deepdale	13	19	*c*.1.5	0	0%	Dawson and Slowikowski 1988, 25-
Dunstable	20	48	*c*.2.4	4	12%	Edwards 2010
Kempston	11	11	1	2	18%	Dawson 2004, 231; Luke 2016, 301-2
Wootton	21	63	3	1	2%	Sharrock 2017; Alice Lyons pers. comm.
Average for all comparable Bedfordshire sites	**203**	**363**	**1.81**	**32**	**9%**	-
Milton Keynes, Buckinghamshire						
Bancroft	17	53	*c*.3	2	3%	Williams and Zeepvat 1994, table 8
Broughton Manor Farm (OA East Area 1)	45*	98	*c*.2.2	17	17%	Atkins *et al* 2014, tables 4.3-4.8
Brooklands	6	33	*c*.5.5	2	6%	Atkins *et al* 2014, table 4.9
Bourton Grounds, Thornborough	7	20	*c*.2.8	9	45%	Johnson 1975, 3 and 15-18
Monkston Park	18	47	*c*.2.5	1	2%	Bull and Davis 2006, 11-34
Wavendon Gate	21	27	*c*.1.3	3	11%	Williams *et a*l 1996, table 21
Average for comparable Milton Keynes sites	**114**	**278**	**2.46**	**34**	**12%**	-

*Total includes two individuals from a four-post structure ** excludes two 'cremation burials' where there were no cremated bone

for these (Atkins *et al.* 2014, 233–236). In Bedfordshire, no settlement had previously produced more than 20 cremation burials for the period prior to AD0 (Table 5.14). One of the exceptions was at Salford, on the borders with Milton Keynes, where a large excavation found four cremations dating from the middle–late 1st century BC, with none seemingly dating into or beyond the 1st century AD (Dawson 2005, 76-81). Bedfordshire was therefore thought to have been slow in adopting the cultural changes affecting most of Southern England as seen by cremations dated to the 1st century BC. The low numbers in the county was attributed to the relatively late arrival of 'Belgic' culture (Simco 1973, 14).

Despite this, cremation was the dominant rite in Bedfordshire during the late Iron Age/Early Roman period (Simco 1984, 60), although with a few inhumations uncovered on sites such as Odell (Dix 1979; Dix 1980) and the inhumation from Site Q. In Bedfordshire, as with large parts of southern Britain, it was only during

the 2nd century AD that inhumation gradually replaced cremation once again as the favoured burial rite in Roman Britain (Philpott 1991, 53).

The three sites in Bedfordshire which produced the highest number of cremations – Site M1A, Site H and Court Drive, Dunstable – are all in the south of the county, close to Hertfordshire, which has significantly more Aylesford–Swarling type burials than the remainder of Bedfordshire. Buckinghamshire, by contrast, has probably produced only a few more cremations than Bedfordshire with the number of burials from individual settlement sites ranging from one to 45. Only two rural settlements in Buckinghamshire had more than 25 examples (Atkins *et al.* 2014, table 4.24). The total number from Buckinghamshire as of 2010 was 262 (excluding barrows). There were also variations in burial numbers recorded across that county. Milton Keynes, for example, forms about one third of the traditional county but accounts for *c.*77% of recorded cremations (Atkins *et al.* 2014, table 4.24). Zeepvat and Radford argued (2010, 76) that Danesborough was a probable tribal centre, and the relatively large number of Aylesford–Swarling type cremations within Milton Keynes may be due in part to the political influence exerted from it (*ibid*, 233). In other parts of Buckinghamshire the burial practice may have been affected by different tribal centres with less control over burial practice. It is uncertain which tribal centres may have exerted an influence at Sites M1A, F, H and Q, or at what times. The hillfort of Maiden Bower (NHLE ID: 1015593, Historic England 2018b) lies *c.*5km to the south-west of the Ouzel Brook valley, and Ravensburgh Castle hillfort is *c.*7km to the north-east (NHLE ID: 1003541, Historic England 2018c). It is perhaps significant that this may have been Catuvellauni land, and presumably part of their way of life, long before the other parts of the county.

At the fringes of Catuvellauni influence, in west Cambridgeshire, there was a mix of cremation and inhumation rites where burial practice varied from site to site (Lyons 2011). In south-west Northamptonshire, late Iron Age inhumations are more numerous than cremations (Philpott 1991, 6) and inhumation sites including those found at Towcester are familiar (Walker 1992). Cremation was rarely undertaken in the Nene Valley although a few late Aylesford–Swarling type cremations were amongst the late 1st to early 2nd-century AD burials found at Pineham, Northampton (Carlyle 2007, 7).

The tribal identity of the local populace is profound. The Milton Keynes area in the early 1st century AD when compared to Central Bedfordshire, is considered more actively involved in social and economic exchange (Meade 2010); perhaps as the rest of Bedfordshire and south-west Northamptonshire lay on a frontier between tribes and Milton Keynes may have been more stable for open trade, as evidenced by the number of late Iron Age coins found there. Meade (2010, 131) records 307 Iron Age coins from the Milton Keynes area and only 105 from Central Bedfordshire, almost 3:1, although the ratio for the number of coins specific to Cunobelin is nearer 2:1. The same is true of the quantity of Roman coins, leading Meade (2010, 53) to suggest that the Milton Keynes area operated a more monetised economy, a view supported by the relative lack of villas and high status sites in keeping with a Romanised identity and way of life. On the southern side of Meade's study area, the sites published here would have borne even greater Roman influence.

ANALYSING THE BURIAL SITES

The relatively large quantity of late Iron Age/early Roman cremations and the lack of late Iron Age/Conquest period inhumations within the five excavation areas confirms the settlements lay within a geographic area in which cremation was practiced. Not all the sites displayed the practise of accompanying the burial with grave goods. Aylesford–Swarling type cremations were found in quantity at the settlement at Site M1A, and to a lesser extent at Site F, but not at Site H, where the cremations were largely unurned with no grave goods. This strongly suggests that different rites across all five settlements (Table 5.14). The detailed analysis indicates that all cremation burials from Sites F, Q and M1A had at least one pottery vessel in every grave; in contrast with Site H where only three of the 22 cremations had any pottery, and 20 cremations were unurned. One cremation from Site H contained 11 vessels and this grave H[3015] was isolated 100m to the north of the main pyre site.

The relatively small quantity of metal objects and few animal parts placed in the cremations across all areas indicate deposition of non-pottery grave goods was rare. This may imply that the communities were of comparatively low status or that they practised similar rites ascribed to the same gods. The system of grading burials by the number of artefact types (NAT) indicates status from very poor (Site H) to comparatively low–medium status (Sites F and M1A). Generally only burials with a NAT score of five or above contain continental imports (Haselgrove 1982, 82-3).

A variety of grave goods were identified including metalwork, animal bone and pottery (Table 5.1). The lowest incidence of furnishing was at Site H, followed by sites with increasing quantities of grave goods from Sites Q and F, and with Site M1A being considered the 'wealthiest'. This can be seen in various ways. Although the three cemeteries all contained pottery vessels, the quantity varied substantially with the average ranging from 0.56 vessels per burial at Site H, one per burial at

Site Q, two per burial at Site F, and 2.3 per burial at Site M1A. The quality of the vessels (i.e. imported vessels) also varied and this is reported on below. The quantity of other grave goods within the graves varied from none at Site Q to minor offerings at Site F and moderate offerings at Site M1A. At Sites Q and H there were few differences in burial types and offerings (or lack of) between the cremations, whilst at Sites F and M1A there were some substantial variations between the graves, which is not unusual in other nearby cremation sites as seen in Meade's (2010, 59) analysis of excavations in Central Bedfordshire and Milton Keynes, where she noted there was considerable intra-site and regional differences in cremation rites.

Chronology of burials

There is no evidence that the cremations recovered from Sites F, H, Q and M1A pre-date the 1st century AD.

Burials are divided into three 'levels'. Welwyn-type burials (50–10BC), the first level, contained La Tène brooches and Gallo-Belgic pottery types such as platters. Burials of this type have been found in Bedfordshire including at Stanfordbury (Simco 1984, 117). None of the cremations had these early Belgic imported wares. Haselgrove's 'second level' burials are defined by the presence of mirrors or buckets. A single mirror from a mid 1st-century AD cremation from Site M1A was an exception to this, with none of the other 83 cremations containing such artefacts. Some of the cremations from Sites F, M1A and a single cremation from Site H relate to Haselgrove's third level (Stead's Lexden phase post 15/10BC-AD50/55). These contain only pottery vessels and/or some personalised artefacts, usually dress accessories. These pottery vessels comprised Gallo-Belgic forms (beakers, flagons and platters) and later brooch types such as Colchester and Nauheim Derivatives.

The pottery from the various sites mostly comes from Sites F and M1A and belongs to the final, Lexden, period of the Aylesford–Swarling culture defined by Stead (1976, 401) and the third level of late Iron Age burials defined by Haselgrove (1984). There is no pottery, brooches or any other artefacts that date to the early part of the Lexden phase and so probably belong to the early 1st century AD. The three main cemeteries (Sites F, H and M1A) may have come into use around the same time, but only Site M1A continued into the mid 2nd century AD.

The burial grounds at Sites F (10 cremations) and H (22 cremations) were probably short-lived. Site F may have been in use for only one or two generations, and at Site H only slightly longer. Precise dating was especially difficult as some of the locally produced pottery styles were in use for a relatively long period of time and radiocarbon dating produced fairly large date ranges. A few burials from Sites F and H were closely dated. At Site F four burials dated at the earliest from at least AD10. Eight burials from this site could not have dated after AD45 and the other two dated before AD60–70. It is possible that all ten burials in Site F dated before the end of Stead's Lexden phase of AD50–55. The burials from Site H are more difficult to date as most were unurned with none having metal grave goods, although a few had residual pottery sherds in their general fill. Where dated by these sherds, eight post-dated AD0, with a further one assigned as late Iron Age+. In five cases, the possible date was at least AD40 and the latest AD55. Nine of the cremations in Site H were dated up to AD75, with only two possibly later; one dated AD40–120 and another AD55–135. The unurned cremations could not be dated. The three cremations from Site Q are probably from the early to mid 1st-century AD.

The cremations from the large burial ground at Site M1A were mainly dated after AD0, with seemingly at least half the cremations dating to the early to mid 1st century AD. Only five cremations from Site M1A definitely dated to the early–mid 2nd century AD with a possible further six having end dates between the late 1st and early 2nd centuries – a clear reduction in the numbers interred after the late 1st century AD. No cremation seems to date after the mid 2nd century AD.

On other main Bedfordshire comparison sites the cremation burials probably date from after AD0 although older, presumably curated, vessels were sometimes used. Hence, for example, the pottery from Biddenham Loop L39 dated from the late 1st centuries BC to AD, although the earliest cremations probably dated from the early 1st century AD and the cemetery lasting not much longer than 60–70 years (Luke 2008, 51, 221).

At Deepdale, Bedfordshire, there was a small 1st to mid/late 2nd-century cremation cemetery (Dawson and Slowikowski 1988), and a small cemetery site of seven cremations is known from the A421 Bypass, which dated from the late 1st century AD to the mid to late 2nd century (Poole 2007a, 88). The relatively small extent of these later cremations may suggest, as with Site M1A, that relatively few people were buried in this fashion, as evidenced by the demise of the cemeteries, which may make it particular to a dwindling sub-section of society. This burial pattern is also mirrored at nearby Buckinghamshire at Broughton Manor Farm and Brooklands, where most of the burials appear to have occurred before *c*.AD70–100 (Atkins *et al.* 2014, table 4.1).

Layout of Iron Age/early Roman burials within the excavated areas

The vast majority of the funerary remains uncovered were located within groups in specific areas of the settlements where they were either largely enclosed or open.

At Site M1A all of the cremations (and one inhumation) were located within a sub-rectangular area, *c.*20m by 12m, bounded by ditches on the north-eastern and south-eastern sides. The north-western and south-western sides were seemingly open. Apart from one undated pit, no other non-funerary features were within or even near to this burial area. Most of the graves were equidistant apart by *c.*2m with only three that intercut. The burial ground was orderly and fairly well planned suggesting that the burials were marked above ground. There was chronological progression across the burial ground, with the earliest burials being situated generally to the north-west, and the latest to the south-east (Fig 4.3, see Chapter 4).

At Site Q, a middle–late Iron Age inhumation and two late Iron Age/early Roman cremations were loosely clustered together in a *c.*15m by 5m area. A few other sparse pits and postholes lay within the area with no apparent contemporary configuration. The burials were situated within a possible sub-rectangular enclosure (Fig 5.38), the fragments of boundaries nearby. The ditches probably post-date the inhumation burial and may be contemporary with the cremations but insufficient finds were recovered to be sure. A further cremation and an inhumation were isolated features in different areas of the later settlement.

Nineteen cremations including five *bustum* were located at Site H over a *c.*40m by 40m extent, mostly within a probable sub-rectangular enclosure (Fig 5.16). The enclosure was largely devoid of other features except a handful of postholes and was associated with trackways to the north and east. In addition to the pyre site, two separate isolated cremations and a further pair of cremations lay at the periphery. The two isolated cremations were *c.*50m and 100m to the north-east. The pair of cremations was 100m to the east.

At Site F, the cremations were in a dispersed group over a *c.*20m diameter extent. No contemporary features were found during the excavation, which suggests there had been no boundaries nearby. The related Roman settlement was presumably to the east of the excavation area.

At Site M1B, another *bustum*, a possible cremation and a pyre-related pit were located within 3.5m of each other. Only a small area around these deposits was excavated and so it is uncertain how these three features related to the landscape around them.

Comparison sites for burial layout

On three of the sites (Sites M1A, M1B and F) the human remains were clustered together in one part of the site. At Site H the vast majority of the burials were grouped within one location, and four burials were dispersed elsewhere. At Site Q three of the five burials lay within a single area. This seems to suggest that even on sites where there was some dispersed burial, there were still foci.

The three main cemeteries (Sites F, H and M1A) differed in their layout. On Sites F and M1A the burial grounds were largely open, while many of the cremations at Site H were enclosed. The largely open sites fit into the La Tène/early Roman tradition of small unenclosed cremation cemeteries (Whimster 1981). These burial grounds are similar to other contemporary cremation sites including four in Bedfordshire at Biddenham Loop, L39 (Luke 2008), Harlington quarry (Dawson 2001), Deepdale (Dawson and Slowikowski 1988), and Court Drive, Dunstable (Edwards 2010). The Deepdale cemetery was largely open as it was delineated on one side by a ditch aligned north–south. The cremations were clustered in two groups parallel and directly to the east of the ditch over a *c.*13m by 2m area. At Court Drive, the cemetery was completely unenclosed; an undated curvilinear ditch directly to its east is thought not to have been contemporary (Edwards 2010, 240). At Biddenham Loop cremation cemetery L39, comprising 16 graves and a possible pyre-related feature, all lay within a *c.*90sqm area, 60m to the north-west of the contemporary farmstead. No cemetery boundaries were identified (Luke 2008, 213). Two isolated cremations and an inhumation of similar date were also found (Luke 2008, 210, 212). At least half of the cremations in Bedfordshire were from open or largely open cemeteries. This percentage may be similar to Milton Keynes where largely open cemeteries include Bancroft (Williams and Zeepvat 1994, 62–72), Wavenden Gate (Williams *et al.* 1996) and Caldecote Farm, Willen Road (Hunn 2008).

In contrast enclosed cemeteries were in the minority, but were seemingly found at Sites H and Q. The origins of the enclosure at Site Q have been discussed above. Two cremation burials were situated near the site's baulk, and other burials may have been located outside the excavation area. It is therefore unknown if this cemetery was more extensive with other burials bridging a wider date range. The enclosed cremation burials at Site H were possibly contemporary with the two cremations from Site Q. Some cremations in nearby settlements were mostly enclosed and therefore had similarities with Sites H and Q.

At Broughton Manor Farm, Milton Keynes, the majority of the cremations lay within three different enclosures

of mixed date; six cremations dated AD10 to pre-Conquest, four dated pre- and post-Conquest, and the largest group of 23 cremations dated from the mid 1st AD to mid/late 2nd centuries (Atkins *et al.* 2014, including fig. 4.1). This burial ground bore similarities to Site M1A, being both contemporary in date and of a similar number of burials, although at Broughton Manor Farm these occupied a much larger area, *c.*100m by 50m. At M1 Junction 13, further north, four cremations dating from around the late 1st to early 2nd centuries lay within the centre of an enclosure (Simmonds and Welsh 2013, 57-62).

Site Q produced an additional cremation and inhumation that were to the north and east. Site H also had dispersed burial placement, with four cremations scattered to the east and north of the pyre site. Unlike Sites F or M1A, the dispersed burial placements at Site Q and four cremations from Site H are far more common in the early Roman period, as seen at Ruxox and Kempston, Bedfordshire (Dawson 2004). The Ruxox remains were dispersed across the site with two urned cremations located to the north of New Road, and one cremation and four inhumations scattered to the south, all dating to the 2nd century. Two cremations at Kempston were found within an enclosure and eight other cremations were spread across four different locations within the excavation (Dawson 2004, 166, 231). One additional cremation was identified in a later stage of excavation (Luke 2016, 301–2).

Overall, the layout of the three largest burial grounds (Sites F, H and M1A) was probably undertaken with an element of planning, to determine whether the area would be enclosed or not and to prevent intercutting of graves. When compared to other similar burial grounds, like Broughton Manor Farm, Milton Keynes (Atkins *et al.* 2014), the latter site also produced two probable excarnation platforms and demonstrated an extremely well-laid burial arrangement with cremations within three separate enclosures, a middle Roman shrine complex and many isolated cremations all respecting/arranged along both sides of a single droveway. Whether the more detailed planning, enclosure and structures of Broughton demonstrate greater importance and wealth of the nearby settlement or a difference in ritual activity cannot be determined.

The lack of later truncation or overbuilding suggests that the burial grounds may have retained a level of protection through respect and living memory, over a century after the last burial had been laid. This can also be compared favourably with the site at Broughton where the later structuring of the settlement respected the 'sacred' location of the former burial ground, even though the last interments were in the mid–late 2nd century.

Types of burials encountered

Cremation burial practices

Amongst the burials at Sites F, H, Q, M1A and M1B, there was notable variation in the rites undertaken (Table 5.1). The large majority of the burials reflected the general Aylesford–Swarling cremation burial rite, and furnished burials continued into the early Roman period, although at Site H this was in the minority. Most of the 83 cremations (66 burials, 80%) from the five sites fall into three categories:

- Urned and furnished (25 burials, 31%)
- Unurned including six *busta* (21 burials, 25%)
- Urned (20 burials, 24%)

In well over two-thirds of the burials (57 burials, 69%), the cremated remains were completely or partly urned. Non-ceramic grave goods were relatively rare, but where they occurred these were all unburnt. Nails, timber dogs and unidentified iron shanks did not exhibit evidence of intense heating.

The quantity of cremated bone picked from the pyre and buried was varied (Table 5.1). Significantly this was also true of cremations which were untruncated or even slightly truncated by later activities such as ploughing, indicating that the variable quantity of bone placed in some burials was deliberate. Where graves had significant quantities of grave goods, the amount of cremated bone was generally more than in the unurned graves, which was recorded at Broughton Manor Farm, Milton Keynes (Atkins *et al.* 2014, table 4.5).

The location of the bone within the urns and accessory vessels was inconsistent. Several of the graves had cremated bone in different locations, either within multiple vessels and/or unurned. Where there was no or little truncation (e.g. Burials M1A[4106, 4108, 4146] and F[348]) the bone was picked from the pyre and was then deliberately deposited in different parts of the grave. Several accessory vessels at both Biddenham Loop L39 and Harlington quarry contained small quantities of bone (Luke 2008, 52-3; Dawson 2001, 36). At Site M1A the cremated bone in at least six instances was carefully packed into the urn in a distinct order, M1A[4092, 4129, 4138, 4140, 4195, 4234], whereas in other instances there was no clear structure or order to the deposition, e.g. M1A[4088]. In cinerary urn M1A [4140], the scapular was positioned at the base of the jar, with long bones above angled down and skull pieces laid on top. This practice was also observed at Biddenham Loop, where in some cases the bone only occurred at the base of the vessel, presumably inserted as part of the funeral rite. In others it was more evenly distributed throughout the vessel. The significance of this is uncertain (Luke 2008, 53).

In some of the graves there were double burials, especially at Site M1A where there seems to have been as many as ten double burials. This includes three examples of adults and infants, with the remainder being two adults. For the A5–M1 link sites there were no definite double burials. Cremation burial F[225/229] had large quantities of bone from two different locations in the grave but these could not definitely be identified as belonging to more than one individual.

There were only a few examples of this in other graves in Bedfordshire. At Biddenham Loop site L39 two cremation graves contained human bone from more than one individual with one containing a sub-adult and an adult, and another the unburnt distal right femur of a foetus and cremated bones of a mature adult (Holst 2008, 225–6). A further grave contained two discrete deposits of human bone in an urn and in an accessory vessel (759.73g and 37.31g respectively; Luke 2008, table 9.5). A double burial contained an 18 year old and an adult of at least 35 years old in two separate urns from Site 8 at the A421 (Poole 2007a, 129–30). At Harlington quarry 7.7% of graves were dual burials (Dawson 2001). In contrast at Broughton Manor Farm, the number of double burials was far more common and amounted to 44 cremation pits containing the remains of 53–55 individuals where 22% of features contained cremated bone (Dodwell 2014, 129).

A few of the unurned cremation deposits may have been placed in organic containers, such as leather bags or wooden boxes, a suggestion applied to at least two of the burials from Site M1A where they were found in a tight cluster, sometimes sub-rectangular in shape, e.g. grave [4234]. The use of organic burial containers is suggested for similar deposits at other local sites such as Biddenham Loop (Luke 2008, 53).

Busta and evidence of other pyre remains

Examples of *busta* came from Sites H and M1B. A *bustum* is where the pyre is constructed over an elongated or oval pit. After firing, the pyre debris and the cremated remains are then deposited into the pit below (Barber and Bowsher 2000). The dating of the five *busta* from Site H was relatively narrow. Two of the burials contained pottery sherds that dated after AD45. The radiocarbon and pottery sherd dates for the other three were between the very late Iron Age and earliest Roman period. All five probably post-date the Roman Conquest and were before *c.*AD70. At Site M1B the *bustum* was also of a similar date (90BC–AD60).

Busta are relatively rare, with only two definite examples noted elsewhere in Bedfordshire. At Court Drive, Dunstable, a *bustum* was located on the east side of the cemetery, fired using oak (Edwards 2010, fig. 4). At Biddenham Loop there was a single isolated *bustum* (Site SL53) of the 4th century AD with a range of woods used (Luke 2016, 310-14). *Busta* are rare in Buckinghamshire, where only one site produced evidence of this type. At The Lea in Denham, Amersham, eight *busta* dated *c.*AD225+ were identified, alongside one inhumation of 1st-century AD date and three early Roman cremations (Coleman *et al.* 2004, 15–17).

Luke (2016, 314) noted that at Biddenham Loop and The Lea the sub-rectangular shape of the *busta* and north-east to south-west alignment may have been related to prevailing wind direction. Three of the five *busta* at Site H were also aligned north-east to south-west, H[477, 502, 634], one north–south, H[644], and one east–west, H632]. No additional explanation for the orientation can be given. The quantity of *busta* at Site H and The Lea, Denham, seems to suggest a site for the purpose of pyre construction.

The unurned burials, and burials without other grave goods, made up 21 of 22 cremations in the burial ground at Site H, indicating that very few interments seem to have been made with former possessions. There are no known comparisons for the dominance of this rite at any other significant cemetery from Bedfordshire or adjacent counties. Two very small cremation groups at Biddenham Loop Farmstead 5, comprising three graves (L20) and two graves (L126) were unurned and contained no grave goods (Luke 2008, 51).

A pyre-related pit was recovered from Site M1B, but any cremations were presumably located outside the excavation area. Within the other four settlement sites, pyres were not found, although pyre related remains were noted during the evaluation of Site M1A. Presumably later truncation such as ploughing had removed evidence of *busta.*

There was a single example of a probable four-post structure *c.*20m to the north of the cremation cemetery at Site F, amongst features dated to the medieval and late medieval periods. This location was very similar to Broughton Manor Farm where two four-post structures were sited 25m to the north and north-east of contemporary cremations (Atkins *et al.* 2014, fig 4.1).

Inhumation burial practices

Only three pre-Saxon inhumation burials were recovered, in contrast to 81 cremations. One inhumation was located in the middle of the cremation cemetery at Site M1A, and two came from Site Q, one of which was middle–late Iron Age in date (analysed above) and pre-dated two adjacent cremations. The isolated inhumation burial at Site Q is unusual and no parallel can be found. The grave had been cut into a

mid–late 1st-century AD ditch and comprised a narrow hole within which a young child was placed upright but in a flexed position. A radiocarbon date from a tooth was calibrated between 50BC–AD65 (95% confidence, 2000±30BP, Beta–456920).

The inhumation burial associated with the cemetery at Site M1A and flexed burial at Site Q are both likely to date to the 2nd century AD, at the time when there was a decrease in popularity of the cremation rite and a subsequent rise in the number of inhumations. Philpott (1991, 55, 57) observed that there was growing evidence for the occurrence of inhumation burials alongside the dominant La Tène III cremation rite. At Court Drive, Dunstable, part of a cemetery of the 1st to 2nd centuries AD comprised 20 cremation burials and seven inhumation burials (Edwards 2010). The inhumations were aligned east–west, respecting the road orientation with the heads positioned at the east end, but only one of the inhumations had grave goods. At the A421, Site 8, an enclosure of the 1st- to 2nd-centuries AD contained 17 cremations and two infant inhumations, whilst five other inhumations, dated to the mid–late 2nd century AD, were dispersed around the site (Poole 2007a, 123; 2007b, 155). The inhumations may have been contemporary with some of the latest cremations, and therefore probably represent a shift in burial practices (Poole 2007b, 155). At Radwell gravel pits there were four inhumations, three interred in coffins. One burial was dated by an urn to *c.*AD50, indicating further inhumation in the 1st century AD (Hall 1973, 69).

A probable late Roman charnel pit, F[906], located in the north-western part of Site F is potentially unusual. Within the pit were the disarticulated and partly articulated remains of five individuals (two adults and three sub-adults). None of the skeletal remains were complete, partly due to its disturbance. Importantly a radiocarbon date from a tooth produced a calibrated date of AD380–435/460–465/490–535 (95% confidence, 1630±30BP, Beta–456912). The highest confidence in this curve was at the dates AD380–435, which strongly suggests the remains are of the 5th century. Pottery within the pit included Roman and early/middle Saxon sherds, but also a bone of a juvenile chicken and fragments from a large bird tibiotarsus. There was some intrusive material and it is probable, but not definitive, that the Saxon sherds were also intrusive.

Several farmsteads in Bedfordshire have found relatively late Roman inhumation cemeteries, some containing a moderate or large number of people, including those recorded at Farmstead SL 54 at Biddenham Loop (Luke 2016) and an enclosed inhumation cemetery of 80 inhumations of mid 3rd to 4th centuries AD at Kempston (Dawson 2004, 198-202).

Treatment of cremated bone and pyre debris

Oak was found in the vast majority of the cremation samples from Site M1A, with 30 of the 38 cremation samples having oak, the remaining eight contained ash. At the A5–M1 link, Site F and H, oak was dominant in all except two burials where one produced mostly hawthorn and the other had a mixture of alder, beech, oak and hawthorn. Overall, oak was the preferred wood for funerals. This seems to be true of other Roman cremation sites nearby with oak and/or ash dominant at Court Drive, Dunstable (Austin 2010) and Bedford (Challinor in prep). Austin proposed that oak was preferentially selected for cremation, as it would not have grown well on the thin, calcareous soils that cover much of the area around Dunstable (2010, 263) and this would have been true of both the Site M1A and A5–M1 link sites.

Analysis of the remains suggested that pyres largely comprised wood as well as utilising dried herbage as tinder or kindling, and at Site H cereal processing waste may also have been used for this purpose. Pyre deposits were found in five cremation at Site M1A. It is likely that this debris included planks, i.e. M1A[4069] contained part of a probable plank, 0.3m long by 0.1m wide. In three pyre deposits a few other wood species were found in fewer numbers, such as alder/hazel, hawthorn and cherry/blackthorn. Pyre debris was possibly recovered as a secondary deposit from ditch Q[350], located near to two cremation pits. An environmental sample from this ditch recovered a significant assemblage of charcoal, including numerous large pieces >10mm in size, but no human bone.

The charred plant remains found in the 43 environmental samples from the cremations and inhumations were all small with none having enough remains for detailed analysis. Those recovered from Sites F, H and Q suggested that there was no evidence for votive food offerings in the form of cereals on the pyre. Evidence from Site F indicated that the cremated remains were sorted prior to burial, but no further rites for the deceased were evident.

Pottery within graves

The quantity of pottery placed in the graves varied across the four sites (Table 5.14). The most, 107 vessels, came from cremations at Site M1A and averaged *c.*2.4 vessels per grave which is above average for sites in Bedfordshire (1.66 vessels per burial) but slightly below for sites in Milton Keynes (2.46 vessels per burial). Site F with 20 vessels had an average two vessels per grave, Site Q with three vessels (average of 1 per grave) and Site H (13 vessels, average of 0.6 per grave) gives evidence for differing ritual practices.

The type of vessel used varied by site. Only Aylesford–Swarling vessels, many of which were handmade, were used as urns on the A5–M1 sites, and mainly jars, although there were also three beakers. When compared to the nearby contemporary burial ground at Court Drive, Dunstable (Edwards 2010), the chronological range of pottery was similar to Site M1A and most of the vessels were in a local sandy ware. The dominant sandy fabric at Dunstable, however, differed from Site M1A suggesting a slightly different market source with some overlap of the earlier grog-tempered vessels and the shelly wares. The selection and range of vessel forms is directly comparable; e.g. *Verulamium*-region vessels were found in two burials at Court Drive with two local platters copying imported moulded Gallo-Belgic forms, although these were of different fabrics to Site M1A.

The vast majority of the pottery from the cremations at Site M1A and A5–M1 link was locally made. At Site H, most of the cremation graves had no pottery vessels. On several nearby sites the vessels used in burial were of a higher quality than found in domestic assemblages. Unfortunately very little of these sites had domestic areas to examine in detail. Despite this, analysis shows that the large majority of the vessels associated with cremations were of low–medium quality, and there was little inclination to use favoured or particularly high quality vessels from Gallo-Belgic copies and imports. A significant quantity of the vessels comprised locally-made jars, a common household vessel. At Broughton Manor Farm, Milton Keynes, the majority of the pottery comprised domestically produced grog-tempered ware, and thin section analysis of the vessels from funerary contexts showed a much finer fabric than that used in similar vessels in the domestic assemblage (Lyons 2014, 222). Significantly the funerary vessels were also of different forms from the domestic pottery being manufactured in a contemporary kiln found within the settlement (Lyons 2014, 222). The Broughton pottery notably included imported Gallo-Belgic vessels as well as locally made copies of similar form and decoration. The preferential use of different pottery forms for the domestic and funerary assemblages raised the notion that one assemblage was associated with life and one with death (*ibid*, 223).

There were very few examples of imported pottery from the A5–M1 sites or from and Site M1A. There were only two imported pottery vessels out of a total of 20, one each from graves F[225/229] and F[348], both whiteware beakers from North Gaul. At Site H there was a single imported vessel out of a total of 13; a North Gaulish whiteware flagon from H[3015]. None of the three cremation urns from Site Q were imports. The only imported vessels from Site M1A were samian; seven cremations each produced a single samian dish (*c.*7% of the 103 vessels present). Those burials containing samian were from *c.*AD 60 and the latest up to *c.*AD150. On the A5–M1 link, a total of 139 vessels were found in graves from the four burial sites, with samian therefore accounting for just 5% of vessels used. This is well beneath the *c.*10% of vessel rate for samian in Bedfordshire cemeteries and far below the 12% for sites in Milton Keynes (Table 5.14).

Taking into consideration the provenance and form of cremation vessels, it is suggested that other burial grounds in the region were notably wealthier than those of the A5–M1 link and Site M1A. At Court Drive, Dunstable, there were imports from the continent comprising four samian vessels and a Central Gaulish glazed ware flask (Slowikowski 2010, illus 14, fig 7). Harlington quarry had a relatively small cemetery with a similar date range to the latter half of Site M1A, it produced at least 12 samian vessels and at least two Gallo-Belgic whiteware vessels comprising a butt beaker and a flagon, as well as a stamped *terra nigra* platter and a glazed Central Gaulish flagon. The range of pottery from Harlington quarry indicated a community of slightly higher status than the average (Dawson 2001, 37). At Broughton Manor Farm, of similar size and date to Site M1A, the samian assemblage comprised 17% of the total funerary vessels and included not only dishes but also cups and platters (Lyons 2014).

Although the A5–M1 link sites and Site M1A produced few imported pottery vessels from graves, a number of other sites had even fewer. At Biddenham Loop L39 none of the 38 pottery vessels were imports. Luke commented that that "the relatives of the dead were reluctant to part with valuable vessels, or more likely the overall scarcity of such pottery within the farmsteads" (Luke 2008, 52).

RITUAL MODIFICATION OF VESSELS

A small number of cremation vessels from the A5–M1 link and Site M1A were subject to alteration after firing in a way that may have impeded their functional use as domestic containers. This relates in particular to the post-firing perforation of vessels, a "well-established tradition" by the early Roman period (Perry 2013, 89). A vessel treated in this fashion from the A421 was interpreted as being altered by a deliberate action to change the symbolic state of the vessel, bring ritually 'killed' (Webley 2007b). At Site M1A, although none of the artefacts were deliberately broken, at least two pots in burials M1A[4146] from the late Iron Age and M1A[4190], which was early Roman, had holes drilled through the walls after firing. Three vessels from the A5–M1 link sites were similarly affected. Two cinerary urns had their bases pierced: a North Gaulish butt beaker dated AD20–40, F[348], and a flagon dated 30BC–45AD, F[233]. From H[646] there was a greyware beaker used as an accessory vessel, similarly pierced

dating to AD40–5. These vessels were all relatively early, which may be significant. The use of damaged vessels in funerary contexts, either deliberately broken or already broken, was a relatively common practice in the earlier Roman period (Philpott 1991, 239; Going 1988, 23). It has been suggested this was a conscious choice, perhaps reflecting a belief they were now also dead and could therefore cross over with their owners into an afterlife (Wait 1985, 240), although piercing can have a functional purpose in pots used for dairying and brewing, as holes for suspension loops or as holes to fit rivets when effecting repairs (Fulford and Timby 2001, 293; Perry 2013, 89-93). However, there are incidences where this appears to destroy the original functional capacity of the vessel (*ibid*). The A5–M1 link sites and Site M1A were modifications post-firing, but whether this occurred to create a vessel for dairying or as part of the transference of vessels from a functional to symbolic funerary use is not clear.

A samian dish from M1A[4195], dating to AD60–117 was pierced and repaired with three lead rivets. It is likely this pot represents a previously repaired vessel selected for reuse in a funerary context, but which can be paralleled with repaired vessels from cemeteries at Dunstable (Slowikowski 2010, 249) and Harlington quarry (Dickinson 2001, 29). Similarly, a lead pot weld was recovered from H[646] and may have derived from the accessory beaker. In the Site M1A assemblage at least three of the complete or semi-complete vessels have a small portion of rim missing, which could easily be a result of post-depositional damage.

A variation of the piercing practice may come from Court Drive, Dunstable, where a cremation vessel had a pre-firing hole in the base (Slowikowski 2010, illust 4, fig 6). A pre-firing hole would seem to confirm its manufacture for draining liquid or dairying before its reuse as an urn. Sooting on the surface of cinerary urns from the A5–M1 link and Site M1A supports the interpretation that these vessels were formerly used in a domestic context before being repurposed for a funerary use. Sooting on vessels was observed on two early Roman jars used as cinerary urns from M1A[4106, 4222], Q[11] and F[249]. One platter, an accessory vessel in M1A[4073], dated to AD40–60, also had had a very burnt base. Some residual sherds were sooted included those from unurned graves, H[614, 634]. This again suggests domestic and funerary assemblages were not exclusive.

In addition to pierced, repaired and reused vessels, many were had firing or manufacturing flaws. One flagon from M1A[4092] was complete apart from its handle. The absence of a lower attachment scar might suggest it was flawed. Burial M1A[4108] produced a globular flask used as a cinerary urn, from the early 2nd century, which was also flawed. There was a possible firing flaw in a jar within late Iron Age burial M1A[4171] and a cinerary urn beaker from M1A[4088] had a probable firing flaw in its base. The numbers of such vessels used in cremations at the A5–M1 link and Site M1A was usual, although fewer than at other sites. At Broughton Manor Farm, Milton Keynes, there was a much higher incidence of repaired vessels (14 of which 11 were samian), worn out vessels (eight), six with manufacturing flaws, one waster and two apparently curated vessels. There were 6–11 vessels that were perhaps deliberately damaged. These vessels together comprised around 40% of the assemblage, 42 out of 98 vessels (Atkins *et al.* 2014, 243).

Other grave goods

After the Conquest, the Aylesford–Swarling tradition continued although in some cases these were supplemented with lamps, glass vessels, bronze-decorated caskets and imported ceramics, especially samian (Philpott 1991, 217–18). It is worth noting that relatively few of these 'Romanised' goods were found in funerary contexts at the sites on the A5–M1 link and at Site M1A, and no glass objects were found in any of the graves. The few non-pottery grave goods were entirely metal except for a ceramic disc found in one grave from Site M1A. Significantly, there were also relatively few metal objects recovered from the sites.

In the 47 graves at Site M1A only six had metal objects that were not nails or metal strip fragments, and only five were in these latter categories. At Site F, from a total of 10 burials, six had metal objects and a further two had single nails. In Site H out of 22 burials only one had a metal object and this was a lead pot weld. Brooches were very sparse; there were seven comprising Nauheim Derivative or Colchester types and a spring from just five of the graves, probably dating early–mid 1st century AD, three brooches from Site F and four from Site M1A.

Comparable cemeteries in Bedfordshire and Buckinghamshire produced a higher quantity of metal grave goods, with Biddenham Loop L39 producing metal grave goods from five of the 16 graves, including three brooches (Luke 2008, table 9.5). Three brooches were found in two out of the 13 cremations at Harlington quarry (Dawson 2001, 32) and three brooches were recovered from two of the 20 cremations at Court Drive, Dunstable (Edwards 2010). At Broughton Manor Farm a substantial assemblage of metalwork was recovered from the 44 cremations including *c.*22 brooches (Atkins *et al.* 2014), which were found in contexts dated *c.*AD10–65. A diverse assemblage from Shefford, Bedfordshire, was associated with a probable villa site, excavated in 1826 (Simco 1984, 117). Finds included large quantities of samian, a Terra Nigra platter, an amphora, glass and bronze vessels and other objects including an

iron lamp, a silver pipe and a lead eagle. It is difficult to judge how representative this cremation cemetery might have been.

Of the well-furnished burials M1A[4073], which dated to AD40–65, comprised the cremated remains of an adult accompanied by a moderate to large quantity of grave goods including a bronze mirror, a brooch, three pottery vessels and a probable wooden box. Mirrors are not common, one was found at Old Warden in the mid 1850s, probably with an amphora and presumably within a burial (Spratling 1970, 8). A mirror handle was reportedly also found at Old Warden, although this is now lost (Dyer 1966).

In addition to the possible box from burial M1A[4073], an additional box may have been included within burial F[245]. Here, iron shanks and other fragments were found fused to the bone within the burial. The shanks are thought to have held together a wooden object or objects, such as a box, and in this case the artefact seemed to have been on the pyre. A few other burials contained a small number of nails but their significance is uncertain, and these may have been from the reuse of timber as fuel. That only two wooden boxes were observed at the A5–M1 link and Site M1A is not unusual as wooden boxes and chests are rarely identified in small rural settlements (Poole 2007a, 125). Boxes from Roman burials of the mid 1st century AD to the early 2nd century are concentrated in the south and east of the country, possibly reflecting Roman or Gallo-Roman influence (Borrill 1981, table 46; Philpott 1991, table A4).

Elsewhere in Bedfordshire a few boxes have been tentatively identified within burial sites. There may have been boxes or wooden objects within possibly three cremations at Harlington quarry (Dawson 2001, 31-2). The presence of boxes was inferred from the recovery of several nails/shanks from burials. A casket burial was identified at Court Drive, Dunstable, where copper-alloy box fittings were contained in an urn (Edwards 2010, 243 and 258). A casket burial was also identified at A421, Site 8 (Poole 2007a, plate 4.11) and at Radwell gravel pit, one cremation of the mid 3rd century AD comprised a cinerary urn and accessory vessels which were covered by a box (Hall 1973, 71). At Broughton Manor Farm, Milton Keynes, there were three boxes out of 45 cremations including a well-made example with lion-headed studs (Atkins *et al.* 2014). At least 12 boxes have been recorded from Buckinghamshire (*ibid*, 245). Lying on the periphery of the region in which boxes were used for burial during this period is Northamptonshire, where only two boxes are known (Atkins 2018, 175).

FAUNAL REMAINS IN ASSOCIATION WITH FUNERARY DEPOSITS

None of the burials at Site M1A contained deliberately deposited animal or bird remains, although it is possible that unburnt animal bone did not survive because of the highly acidic soil conditions. During excavations at Site M1A, 52 NISP (175g) animal bone elements and fragments were hand collected from three Roman ditches (Lichtenstein, in Brown 2015c). These unburnt bone fragments were generally in very poor condition. The absence of cremated or unburnt animal bone deposits in burials suggests that such activities were not part of the burial rite.

In contrast there were two deliberate deposits of unburnt animal bone from two A5–M1 link sites. In burial F[348] part of an articulated sheep spine, foreleg and rib was found, and an articulated pig spine came from adult cremation burial H[3015]. These two burials were both dated to AD20–45 and contained by far the highest quantity of ceramic vessels from any burials with 10 and 11 vessels respectively. Burial F[348] also had a range of metal objects including two brooches. This suggests an association between an unusual quantity of grave goods and the inclusion of joints of meat. An additional pig atlas and caudal vertebrae of an unidentified medium mammal were found in the material from F[225/229].

The provision of pork joints in cremations such as H[3015] is known locally from Odell, Bedfordshire (Dix 1980), and at Biddenham Loop L39, where three pork joints came from three graves, Group G493, which contained large quantities of cremated human bone and multiple ceramic vessels (Luke 2008, 221; Maltby 2008a, 224). At Court Drive, Dunstable, two calcined pig back-leg joints were found (Reilly 2010, 261).

From burial F[321] there came a cat mandible with a knife cut, possibly from skinning. The significance of this find is uncertain and it may have been deliberately included in the grave. There are few comparable instances, but a cat or possible small dog vertebrae came from the fill of a *bustum* at Court Drive, Dunstable (Reilly 2010, 262).

Other Bedfordshire cemeteries produced a similar general pattern, with few animal bone deposits identified within cremation pits. Small numbers of animal bones from graves at A421, Site 8, may have been accidental inclusions, and some may derive from funeral feasting; the burnt bone may indicate some joints were burnt with the deceased (Poole 2007a, 125). Chickens were common: a young chicken was found in a cremation of an adolescent from A421, Site 8 (Poole

2007a, 125). At Kempston two cremations had complete chickens (Dawson 2004, 231). A whole dressed calcined chicken carcass was also deliberately placed, probably as a food offering, within a cremation vessel at Court Drive, Dunstable (Reilly 2010, 261).

Sites in Milton Keynes present a different pattern of activity, where animal remains were found frequently within cremation pits. Eighteen deliberately deposited partial animal/bird carcasses were found in 13 of the 44 cremations (29%) at Site 1 of Broughton Manor Farm and at least 53% of all the cremations contained some animal bone (Atkins *et al.* 2014, 244). At Bancroft, 14 of the 17 cremations contained animal bone (Williams and Zeepvat 1993, 71), although this may include residual material from the grave fill. At Monkston Park, animal bone was found in nine of the 18 cremations (Bull and Davis 2006). The smaller number of deliberate animal bone deposits found in Bedfordshire cemetery features suggests in general and specifically at the A5–M1 link and Site M1A, that they were not a key component of the local burial rites.

Review of project objectives

Comparison of the burial and pyre traditions has been a major component of the project. The assemblages studied significantly increase the overall quantity of contemporary cemetery remains discovered within the county. Traditionally, published work has focused upon human bone analysis (Oake 2007, 12), and whilst further comparable data is provided in the present study (Murphy 2007b, 80-81), there is a greater emphasis on presenting the components of the burials: shape, distribution, form, orientation, artefacts, charred materials, and so forth, in an attempt to address the less well understood aspects of ritual within funerary practices. Local examples from the work at Harlington Quarry (Dawson 2001), Court Drive, Dunstable (Edwards 2010) and Puddlehill (Matthews and Warren 1992) have been used as a background to the present work. A chronological sequence has been established for the principal cemeteries and it is expected that the combined corpus of funerary information from both schemes will enable a greater focus for comparative studies engaging ritual elements such as burial position, choice of burial urn, selection of grave goods etc. and how these may relate to the demographics of specific individual and the sites chosen for specific practices.

The pyre debris from several *busta* was dated using radiocarbon analysis and was placed within the chronological sequence of the surrounding archaeological features at Site H, and in the context of near contemporary burials at Site F. The stratigraphic relationships of the funerary enclosure and other unurned cremations at Site H confirmed its use as part of the surrounding occupation. A broad synthesis of Roman funerary practices at Site M1A, Site F and Site H has been undertaken and varied contemporary burial traditions are apparent within these sites. Similar recording and analysis of future cemetery groups can develop and enhance the basic typology of burial practices used here, which will have significance beyond the county across the East of England, and other surrounding regions. Greater complexity and detail is expected to emerge from such work with more examples and circumstances to consider. Localised trends and differences are to be expected. Indicators of social identity are also likely, and there is also great potential for multiple contemporary cult practices to be identified more clearly in the material culture, which is a characteristic of polytheist societies.

Chapter 6

LATE IRON AGE/ROMAN TRACKWAYS, BOUNDARIES AND ENCLOSURES

There were two main archaeological settlements recorded in the excavations which dated from the late Iron Age, continuing into the Roman period, as well as three minor sites (Fig 6.1). The two settlements, at Site H and Site Q, comprised extensive enclosure ditches. These produced pottery of the Aylesford–Swarling tradition, in use from *c*.30BC–AD70, alongside other recognisably Roman fabrics and wares occurring less frequently into the early 2nd century AD. These two main sites appear to have been more or less contemporary within the Roman landscape and although geographically separated by a distance of *c*.3.8km their assemblages were broadly similar in character.

The minor sites were Site F, Site P and Site J. Low quantities of residual pottery sherds were recovered from Site F, additional to the assemblage of pottery found in cremation burials (see Chapter 5). No late Iron Age/Roman features were identified outside the cemetery group, although two undated four-post structures may have been related. A minor site was noted at Site P where a concentration of largely undated features was found over a distance of *c*.95m. It is likely Site P was part of a field system of an adjacent settlement. Four undated boundary ditches converged and were probably part of a related organised field/enclosure network. Further ditches and pits lay nearby with a couple containing small quantities of early Roman pottery. Similarly, a general and targeted watching brief took place on land to the north of the Ouzel Brook (Site J), where a ditch drained into an ancient dried up marsh, and where a pit group was investigated. Pottery from the ditch and one of the pits was datable to the early 1st century AD.

Chapter 6 periods:

pre-conquest, late Iron Age, BC to mid-1st century AD

post-conquest, early Roman, mid-1st to early 2nd century AD

Fig 6.1 Location of late Iron Age/Roman sites

SUMMARY OF THE LATE IRON AGE/ROMAN CHRONOLOGY

It is likely that all settlements and activity within the five late Iron Age/early Roman sites were roughly contemporary, with little or no firm evidence of definite later middle Iron Age occupation prior to settlement or for further continuity of settlement after the 2nd century AD.

Site Q may have been established after 100BC, but was abandoned by AD70. At Site H the late Iron Age/early Roman occupation, field systems and burial ground started around AD0 or just before and continued to *c.*AD120. Site F was a funerary area which dated from the late Iron Age/ early Roman period. At Site P the only datable evidence was after the mid 1st century AD, but before AD120. The single dated ditch at Site J was of the 1st century AD.

FEATURE SUMMARY

1ST CENTURY BC TO MID 1ST CENTURY AD (PRE-ROMAN)

Site Q Enclosures, roundhouse, possible posthole structure, boundary ditch, pits, postholes, an inhumation burial and cremation burials
Site H Enclosures, fields, boundary ditches, trackways, possible sill-beam structure, pits, possible waterholes and burials
Site F Cremation cemetery and possible four-post structures
Site J Ditches and pits

LATE 1ST CENTURY AD UNTIL C.AD120 (ROMAN)

Site H Enclosure, trackway, pits, wells and burials
Site Q Enclosures and burial(s)
Site F Cremation cemetery and possible four-post structures
Site P Ditches and pits
Site J Ditches and pits

TRACKWAYS AND ENCLOSURES AT SITE H

THE DITCHED BOUNDARIES AND FUNERARY LANDSCAPE AT SITE H

The occupation at Site H was located on a prominent hilltop, which is at the watershed between the River Flit and the Ouzel Brook. Trial trench evaluation and subsequent detailed excavations found boundary ditches distributed across the whole of the 2.38ha area. Two trackways converged from the east and south-east upon an area of open ground at the plateau of the hilltop with enclosures to either side.

At the point of convergence a rectangular funerary enclosure was established within which there was a tight cluster of unfurnished and unurned cremation burials together with evidence for busta belonging to pyres, discussed in Chapter 5. Based upon radiocarbon dates the funerary site saw periods of use and disuse throughout the site's occupation (Table 5.12). Charcoal from three *busta*, three cremation burials and bone from one horse burial was dated in the range of 105BC–AD75 cal. The enclosure boundaries ceased to be maintained probably around *c.*AD45 and no later than AD70. Unurned and unfurnished cremation burials continued to be interred, some of them outside the funerary enclosure, showing a migration of focus. One cremation burial cut the abandoned ditch, and a further two *busta* were located on this eastern side. Other more dispersed cremation burials included a fully furnished example far to the north. Two cremation burials were interred in the centre of the enclosure much later than the others, in the late 1st-2nd centuries AD. The funerary enclosure may have remained as an earthwork for some period but had been cut through by ditches after the Conquest. The cremation burials are discussed in detail in Chapter 5, accompanied by their radiocarbon determinations; they are referred to here in the wider context of the surrounding non-funerary features.

After the disuse of the funerary enclosure the layout of the boundary ditches was reorganised (Fig 6.9). Field systems were possibly established and the focus of activity shifted to the north of the hilltop. In the late 1st century AD the hilltop was crossed by a trackway from the north-west opening onto ground to the south-east, indicating a migration of settlement. Two wells pre-dating the early 2nd century AD were found within the northern part of the site; their contents suggested domestic activity in close proximity, although no buildings were identified. Evidence suggested the site and funerary area were both abandoned after AD120.

Boundary ditches were distributed across the whole of the 2.38ha area. The settlement was in use from *c.*AD0 and continued until the early 2nd century AD. The area of excavation was fairly level, so that it lay upon a plateau with the natural topography sloping down steeply to the north and into the Flit valley. Around the eastern arc to the south side, the slope is more gradual towards the River Lea and to the south-west towards the Ouzel Brook. The plateau remains more or less level as it joins the valley ridge to the west. As a prominent location it had already been the focus of middle–late Bronze Age activity, however, there was no continuity through to the Iron Age.

The geology at the southern end of the site is principally red or orange-brown silty clay with gravel patches, overlying grey-white chalky clay, which was fully exposed at the northern end of the site. Geophysical survey data was inhibited by the geological variations of the hilltop and did not clearly show archaeological features (Simmonds and Fisher 2008, figs 15-16). These geological variations made identification of archaeological features difficult and the site required weathering before they became visible (Fig 6.2).

Fig 6.2 Geology of the funerary enclosure, Site H, looking south-east

PRE-CONQUEST PERIOD, LATE IRON AGE BOUNDARY DITCHES

Two trackways approached the centre of the plateau, one from the north-east and the other from the east (Fig 6.3), where they initially opened onto unenclosed ground. The sides of the trackways were bounded by ditches so that the land between them was partitioned into a large field or enclosure. Enclosures seem to have been located on the northern slopes, whilst the upper slopes and edges of the plateau remained open ground. The layout of these pre-Conquest boundaries indicated that the settlement did not have a linked integrated network of field systems and enclosures. Instead, in this southern area there were probably many large independent fields/enclosures divided by trackways in between (Fig 6.3).

THE TRACKWAY FROM THE EAST AND FLANKING ENCLOSURES

The hill was traversed from the east by a trackway 6m wide, swiftly splaying out to 17.5m wide at the summit (Fig 6.4). On its south side, boundary ditch H[683] formed the north-west corner of an enclosure and the ditch gradually became more truncated to the south and east, so that its best preservation was at the corner by the trackway entrance. At this point there were two cuts: an initial rounded ditch with an eroded upper edge on the inside of the boundary, and a later recut with a slightly uneven V-shaped profile. The ditch fill was fairly homogeneous mid brown-grey silty clay in-wash material.

The north trackway boundary was ditch H[471], which turned north-east, forming the corner of another enclosure and following the course of the other trackway. This ditch was also rounded in profile, although not as wide or deep (Fig 6.4, H[471]), and after turning to the north-east its sides were steeply cut with a distinct flat base (Fig 6.4, H[545]). The ditch was truncated to the east and the fill was comparable with its trackway counterpart. Although there were no recuts visible in the main sections, a sinuous gully spur, H[548], indicated that there was probably some maintenance along the boundary. Spreads, layers of silty clay almost synonymous with the fill of the features, lay around the edges of the boundary, perhaps the product of standing water.

Within the enclosed land to the south was a large shallow oval depression, H[385], over 11.8m long by 8.6m wide, but little more than 0.45m deep. This expansive hollow was filled with mid brown clayey silt that spilled out around the edges. There is a tendency for gravel containing clay to act as a sponge when sat upon impermeable or semi-permeable chalky clay till that can produce standing water, particularly where erosive action or natural hollows leave depressions.

The enclosed land to the north contained a 16m-long curving gully, H[583], which although fairly wide at up to 0.60m, remained shallow throughout its course. At either end the gully gradually shallowed out indistinctly, and would seem to have been the surviving fragment

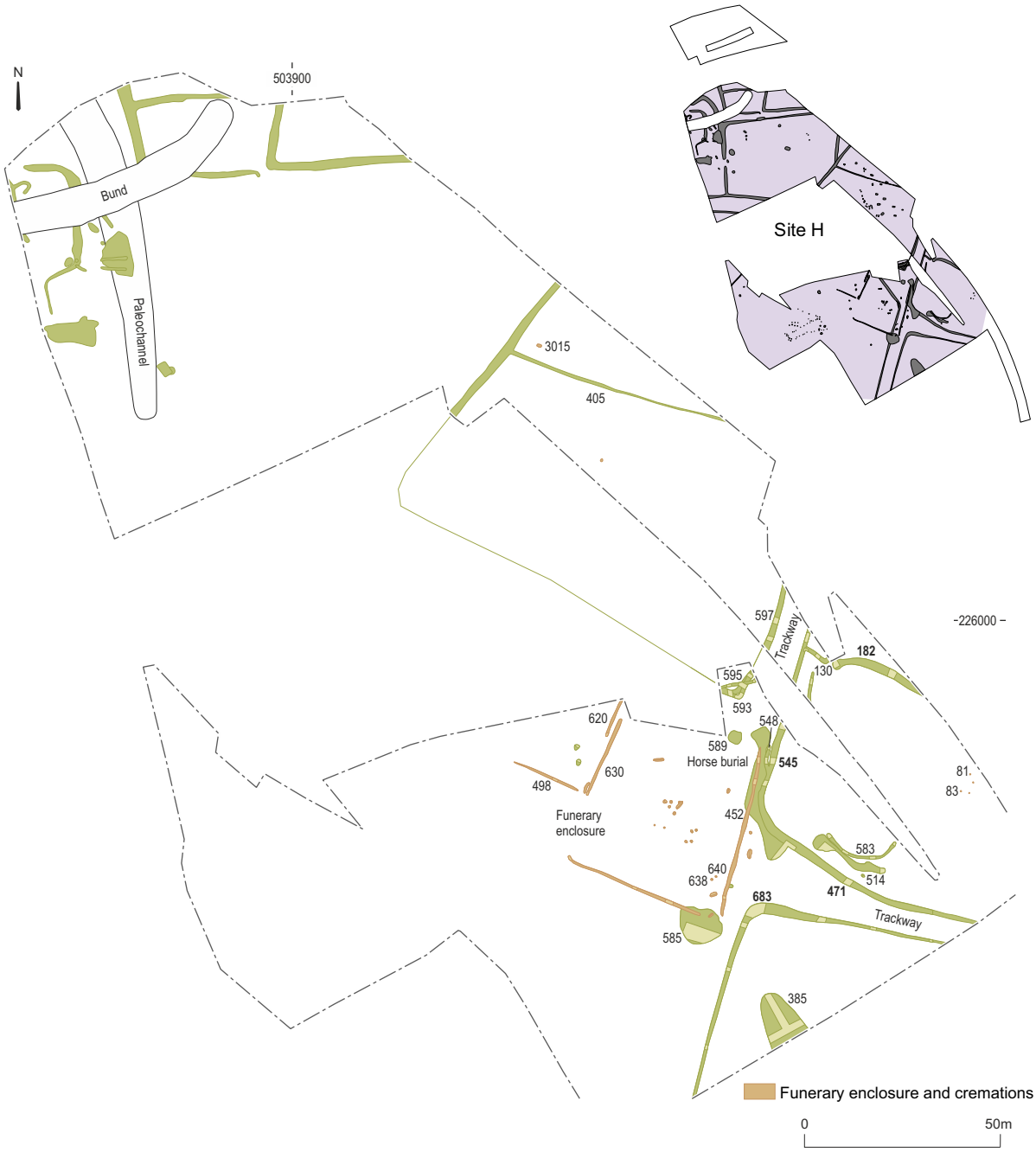
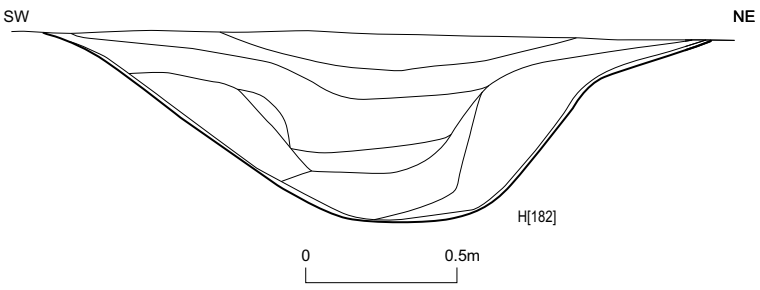


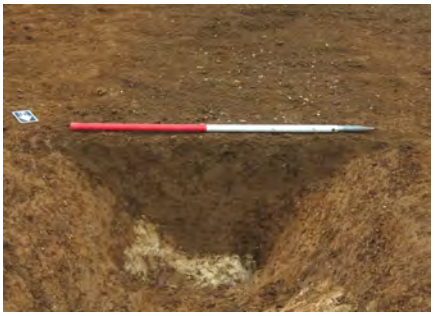
Fig 6.3 Pre-Conquest late Iron Age trackways and enclosures, Site H

of a larger circuit. The gully fill was similar to the mid brown clayey silt within nearby ditches, and finds were scant. On the south side of this gully an uneven spread, identical to those elsewhere, filled a depression between the gully and the enclosure boundary. At one end of this spread lay a single substantial sub-circular posthole, H[514], with a vertical post-pipe and large packing stones on its south-east edge. The top part of the posthole had splayed out into a triangular shape possibly during extraction of the post.

The north side of this enclosure was bounded by ditch H[182]. As substantial as the south and west sides, this rounded ditch profile was slightly eroded at the upper edges (Fig 6.4). The clayey silt fill varied in its colouration and texture sufficiently to highlight periodic episodes of in-wash during its initial silting sequence. Darker and slightly loamier fill in the latest accumulations suggest abandonment rather than deliberate infill. Low levels of finds seem to give substance to the theory there was gradual deposition. The ditch curved slightly along its course, ending with a terminal, which was wide and shallow with roughly hewn ragged edges.

A gap of 7m lay between the terminal of ditch H[182] and the outer enclosure ditch, which was blocked off by gully, H[130]. The gully, 0.55m wide by 0.17m deep, was a later insertion; it had a fairly distinct U-shaped




H[545]


H[471]


H[680], H[683]

Fig 6.4 Sections of trackway and enclosures ditches to the east

cut that had filled with in-wash. One end of a narrow and shallow gully lay immediately to its south, aligned towards this possible entrance, little more than a rounded scoop in the surface of the natural.

Within the enclosure lay a cluster of features, two of which were unurned and unfurnished cremation burials; H[81] and H[83] (Figs 5.16-18). The latter has been dated to 45BC–AD75 (Table 5.12). In close proximity to each was a circular posthole, 0.3m wide, but neither of which was particularly substantial (>100mm deep). The mid grey-brown fills contained no burnt bone, but would not have otherwise been distinguished from the associated cremations (see Chapter 5). Other possible features were examined nearby, but these had little to suggest they were any more than root disturbances.

THE TRACKWAY FROM THE NORTH-EAST

This trackway was 7m wide, widening to 10m at its entrance (Fig 6.3). On its east side lay boundary ditch H[471], described previously, and on the west side lay ditch H[597]. This initial ditch cut was identified where the boundary turned away from the trackway entrance to the north-west, forming the corner of another probable enclosure. The full dimensions did not survive, having been truncated by later recuts. The fill was consistently mid grey-brown silty clay. The profile of the recut, H[593], was larger with gently sloping sides and a rounded base, filled by mid brown-grey silty clay. The angle at which the ditch made its turn in plan was close to 90º, less than its predecessor.

Cutting across the corner of this boundary was a longitudinal gully 0.19m deep, H[595], with either end exiting the excavated area. There was no evidence for its continuation elsewhere.

OTHER BOUNDARIES

Two other boundary ditches, H[134] and H[145], met at a junction on the north-east edge of the site (Fig 6.5). Both ditches were *c*.1.2m wide by 0.30m deep with contemporary finds. The sides sloped steeply with a sudden break of slope at the base to make a flat bottom. The fills probably derived from in-wash, similar to other boundaries and they reflected the orange-brown clay silt of the surrounding natural on the hilltop.

POSSIBLE WATERHOLE

Only one feature that was not associated with the funerary activity in the east portion of this area was datable to the pre-Conquest Iron Age. It pre-dated the use of the funerary enclosure (Fig 6.3). A large sub-circular depression, H[585], was a hollow 10m wide with shallow sloping edges that thinned out around the sides to form a spread of mid brown clayey silt. This bore great similarity to the hollow, H[385], previously described to the south-east. The whole of the fill was diffuse, distinct only from the later features cut into its surface. It may have been a possible waterhole.

SMALL ENCLOSURES TO THE NORTH

At the northern edge of the excavation ditches were laid out in a roughly rectangular arrangement forming small enclosures (Fig 6.5). Where they extended to the north of the spoil bund the features were not accessible to hand excavation owing to the risks of working at the base of an existing road embankment. Here they were simply recorded in plan and surface finds were collected.

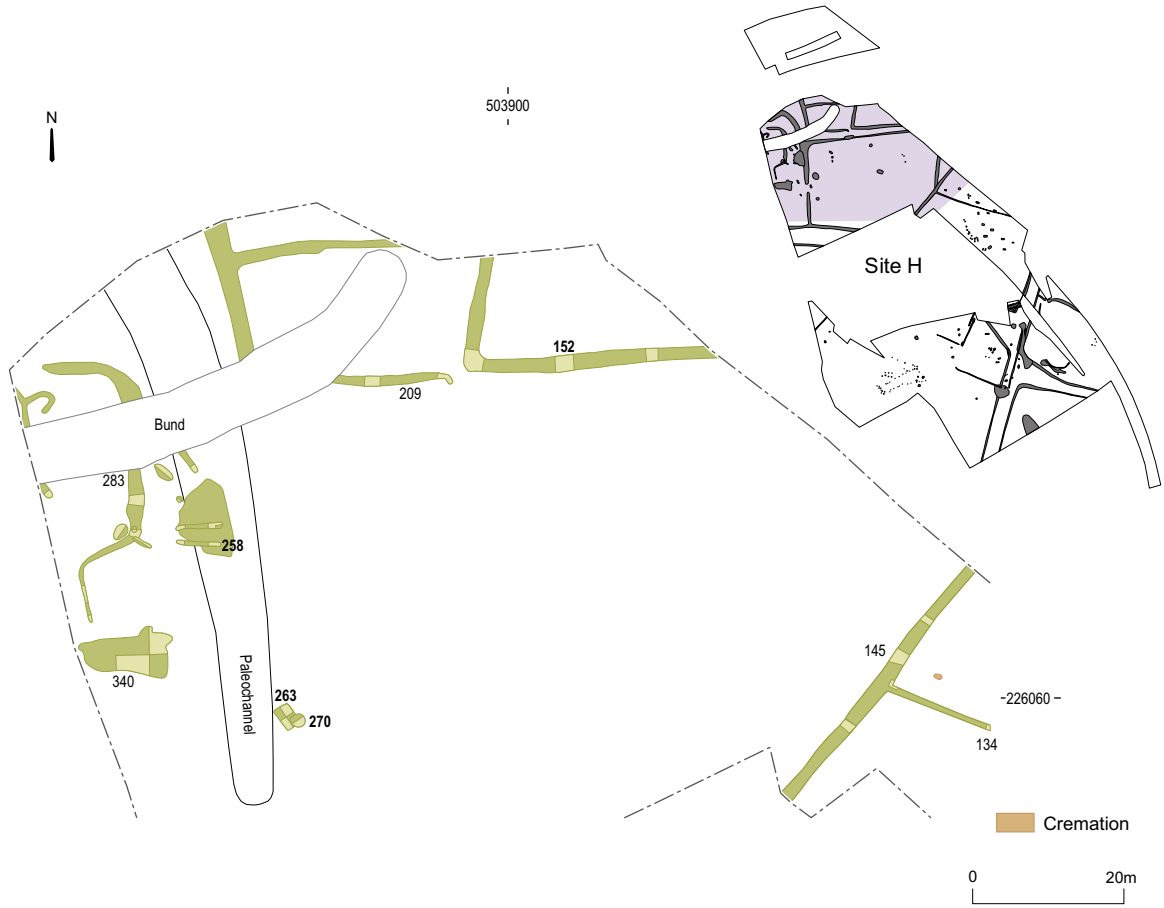


Fig 6.5 Smaller enclosures at the northern edge of the plateau, Site H

On the opposite side of Sundon Road a substantial mound of modern material was cleared. A targeted watching brief of the area for evidence of the continuation of the archaeological features (the test pits or the transect excavation) failed to expose any surviving elements.

Three possible enclosures were evident bounded by ditches H[152], H[209] and H[283]. These boundaries varied considerably in their overall form and their state of preservation; all appeared to be truncated. The larger ditches were generally V-shaped with a narrow rounded base (Fig 6.6), although ditch H[283] was slightly stepped on its western inner edge. Ditch H[209] was narrower with an asymmetrical profile, steeply cut on one side and more gently sloped on the other, with a flat base. The fill of these ditches were generally reflective of the surrounding chalky grey-white clay geology, with sufficient differentiation in texture or tone that episodic periods of in-wash could be defined. Occasionally sections revealed smaller pits at the surface, evidence for dumping and deliberate infill but for the most part it would seem that there was no single post-abandonment levelling episode.

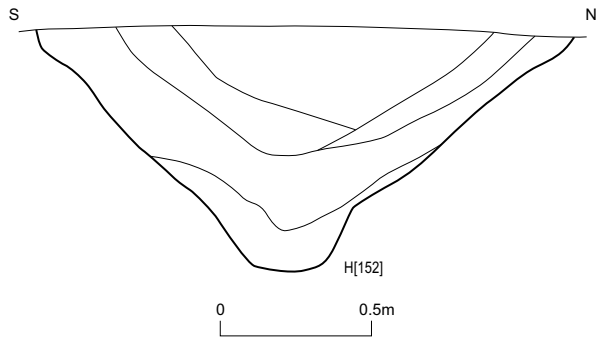


Fig 6.6 Section through northern enclosure ditch H[152]

FEATURES IN THE VICINITY OF THE NORTHERN ENCLOSURES

A group of pits and gully slots focused mainly on the east side of ditch H[283] produced pottery of contemporary date to the enclosure ditches (Fig 6.5). Two of the features cut the ditch fill and one pit was located on its west side. Whilst they are all stratigraphically later than this enclosure boundary, the features were still of pre-Conquest origin indicating a fairly rapid infill of natural sediments, presumably because the surrounding chalk was easily eroded.

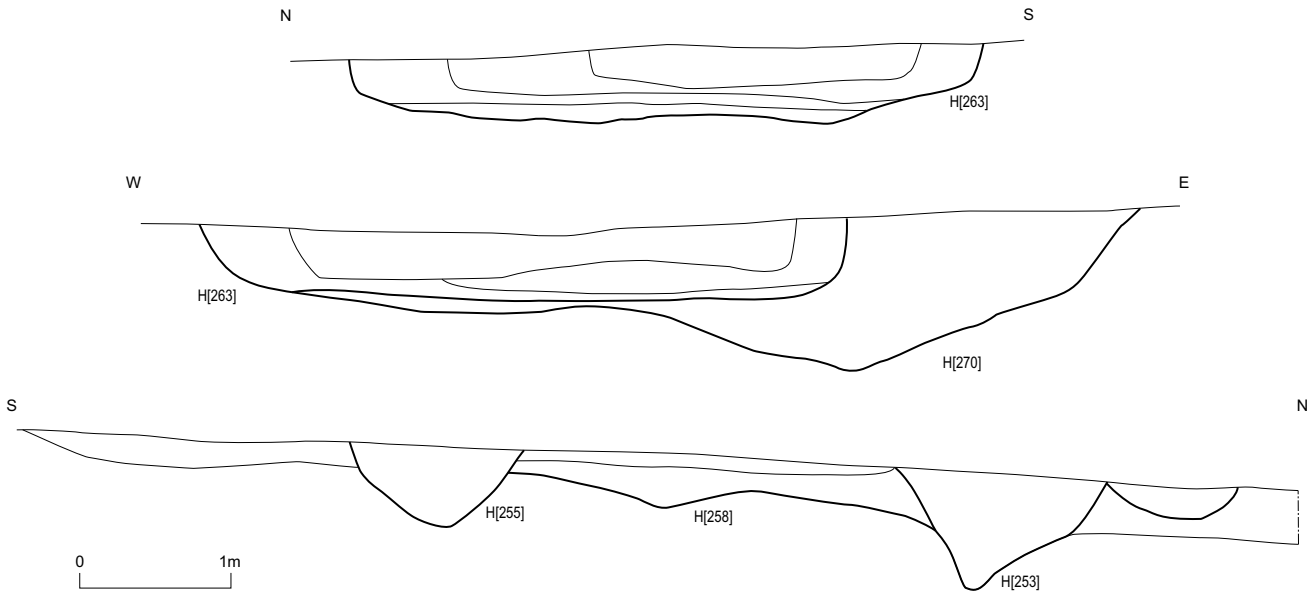


Fig 6.7 Sections of features in the vicinity of the northern enclosures

Spread H[258] comprised mid orange-brown clay silt up to 0.35m thick layer that thinned out at the edges and lay within a slight depression of the natural. This spread was cut by two narrow parallel rounded gullies, H[255] and H[253], orientated east to west, which were 6.0m long and set 5.0m apart (Fig 6.7). The possible slots were 1.1m wide and 1.4m wide and 0.50m and 0.72m deep. The gully fills were a slightly darker brown-grey silty clay than the surrounding spread. They were potentially structural if considered to be slots for sill beams. Indeed early Roman structures of similar type have been recorded in other excavations and possible suggested uses included shepherd's huts (Atkins and Hurst 2014, fig 6).

The other nearby pits and gully slots were between 0.15-0.25m deep, all of them with fairly gently sloping sides. None of these others appeared structural and were scattered in plan. Finds were, on the whole, few, although the fills were comparable with the spread and the two parallel gullies mentioned above. In this regard they were generally darker fills than those in the nearby ditches, incorporating higher levels of silty, rather than chalky, clay.

A fairly large sub-rectangular pit, H[340], 11.2m long by 5.5m wide, lay to the south of the feature concentration. It may be interpreted as another possible building although it lacked sufficient structural elements. Whilst the shape in plan suggested pits were cut along the edges, this proved on excavation to be spread material. The sides of the pit sloped gently down with a slight drop into the middle area of the pit so that it created a flattish base with a step around the edges. The form was asymmetrical, unlike that which might be expected for a structure. At the base of the main pit, placed centrally at the east end, was a smaller circular pit 0.5m in diameter and 0.16m deep, with vertical sides and a flat base. Another almost identical pit lay at the north-east corner. Both smaller pits were filled with grey-brown silty clay, above which the main fill of the overall feature lay. There were no finds and the upper fills had little to differentiate from the primary infill. Both deposits were grey-brown chalky clay silt except that the upper horizon was slightly darker. Attempts to identify further small pits that may have been postholes/post-pits from a structure were unsuccessful.

Southernmost of this feature group was sub-circular pit H[270], which was 1.8m wide by 0.54m deep. This had steep near vertical sides with a sudden break of slope at the base, which then turned to a gentle incline meeting in a broad pointed base (Fig 6.7). The fill was light orange-brown silty clay and there were no finds.

The pit was cut by rectangular pit H[263], which had vertical sides and a level base, 3.1m long by 2.2m wide (Fig 6.7). Although this appeared to be reminiscent of a small sunken-featured building of the type associated with early Saxon habitation, all of the pottery recovered from the pit was of pre-Conquest late Iron Age date (12 sherds, 53g). At the base of the pit the natural chalky till had been churned up, on top of which a band of mid brown-orange clay had been deposited. From this clay layer, fragments of buff coloured mortar (25g) were found. Above this the fills were dark and loamy containing both chalky flecks and charcoal.

A HORSE BURIAL

A complete horse burial, H[589], was at the centre point of a key entrance. In the late Iron Age this was at the end of a trackway arriving at the plateau from the north-east (Fig 6.3). It was also in the middle of the north entrance to a funerary enclosure (See Chapter 5), which appears to have been an addition to the surrounding enclosures, but certainly pre-Conquest in date.

The pit in which the horse was buried was sub-circular, a little over 3.0m in diameter by 0.42m deep (Fig 6.8). The horse was a mature individual, fully articulated, and of comparable height range with other contemporary burials. The animal was buried on its back with its legs in the air, which tends to suggest the carcass had simply been heaved into the pit and had rolled up against its southern side.

The initial attempt to date this horse by radiocarbon analysis used charcoal from the burial pit, which returned a late Mesolithic date (Table 6.41). Given this unexpected result, a second corroborative date was sought using a fragment from one of the long bones. This result provided a date contemporary with the late Iron Age/Roman occupation of the hilltop, 40BC–AD80 cal (95% confidence, 1970±30BP, Beta 456919; Table 6.41).

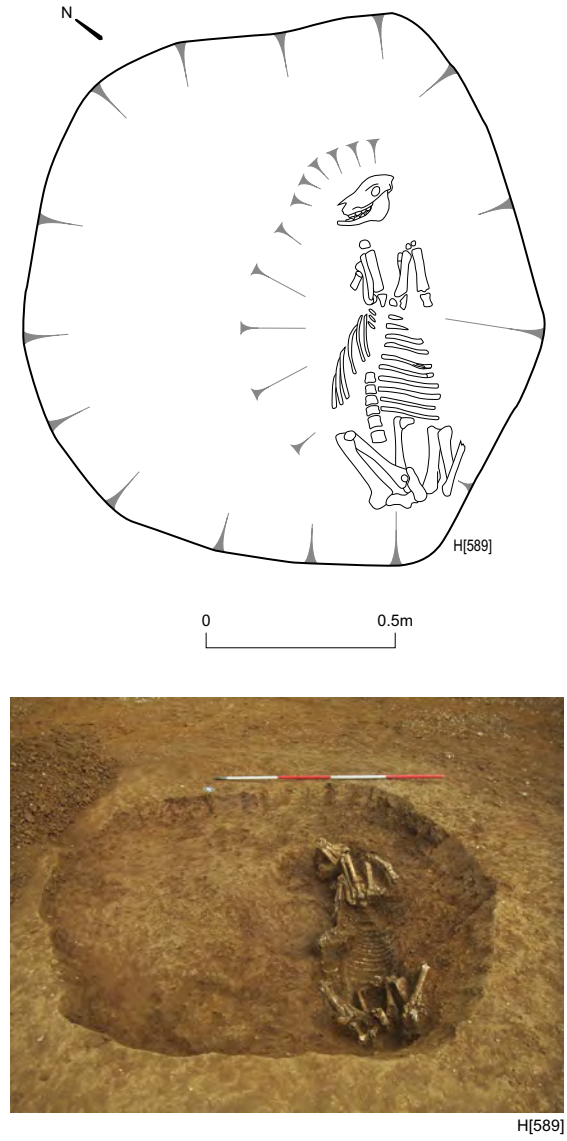


Fig 6.8 A late Iron Age/early Roman horse burial

PRE-CONQUEST PERIOD, LATE IRON AGE FUNERARY ENCLOSURE

Three sides of a rectangular funerary enclosure were exposed within the central area of the site, enclosing an area of *c.*1,470sqm (Fig 6.3). Based upon radiocarbon dates the funerary site saw periods of use and disuse throughout the site's occupation (Table 5.12). Charcoal from three *busta*, three cremation burials and bone from one horse burial was dated in the range of 105BC–AD75 (Tables 5.14; 6.41). The enclosure boundaries ceased to be maintained, probably around *c.*AD45 and no later than AD70.

Pottery from features within the funerary area may suggest that its first use post-dated the initial trackways and enclosure ditches. The stratigraphy of spreads to the sides of earlier ditches suggests that the funerary enclosure was an addition. The east boundary had closed off access from the trackway on that side, which was no longer functional, and features clearly cut the fill of the early depression, H[585], suggesting it too was out of use by this time. The gullies that formed the enclosure did not fully partition the interior from the surrounding land; the north side remained open and was entered from the north-east trackway. A gap, 14m wide, in the west side also allowed movement through the enclosure into the unenclosed land beyond. Inside the enclosure were 16 smaller features, comprising two postholes, 11 cremation burials and three *busta,* although notably these were predominantly unurned and unfurnished with residual pottery sherds. Two of these cremation burials were inserted in the post-Conquest period. The detail of the funerary evidence has been discussed previously in Chapter 5, which also discusses the distribution of burials across the site. The main focus within this enclosure seems to have been in the centre, with a smaller group offset to the south-east corner and with a gradual migration beyond its bounds after the disuse of the enclosure ditch. One cremation burial cut the abandoned ditch, and a further two *busta* were on the eastern side of it. Other more dispersed cremation burials included a fully furnished example far to the north, H(3015).

The east boundary of the funerary enclosure, H[452], was 40m long and aligned roughly with the trackway from the north-east. The gully was 0.65m wide with a shallow rounded profile, 0.15m deep. The fill

comprised friable dark grey silty clay. On the south side of the enclosure, gully H[405] was 33m long, and otherwise identical. After a gap, 14m wide, probably an entrance in the south-west corner, boundary gully H[630] extended a further 19m to the north-east before it terminated. Gully H[620], which was slightly offset from the gully H[630] to the west, continued the extent of the boundary beyond the excavated area.

A further gully extended perpendicular to the west that may suggest that a smaller enclosure might have occupied the unexcavated area immediately adjacent. Gully H[498] was 16m long, gradually becoming more truncated toward its north-west end where it ceased to exist. Two undated pits lay in close proximity, oval in plan with rounded bowl-like profiles and filled with dark red-brown silty clay, lacking the charcoal staining elsewhere.

A pair of circular postholes, H[638] and H[640], lay 1.0m apart inside the south-east corner of the enclosure. They were 0.24m in diameter and little more than 0.12m deep, filled by dark brown sandy silt that was rich in charcoal.

Post-Conquest period, early Roman reorganisation

The final use of the burial ground seems to have been in the late 1st to 2nd centuries AD; a cremation burial was dated 55–135 cal AD (Table 5.12) and another dated by the pottery to AD40–120. Several of the other burials potentially dated to AD45+ but were unlikely to date much beyond AD70, including one which cut the former funerary enclosure ditch. Only two cremation burials clearly bridged into the 2nd century AD. The layout of the boundary ditches in the surrounding land was reorganised in the same period since none of the greywares (the latest pottery found) post-dated *c.*AD120. Most of the earlier boundary ditches were abandoned and field systems were established with the focus of activity to the north-west of the hilltop (Fig 6.9).

This included the abandonment of the former funerary enclosure although the burial site formerly contained within remained in use. A newly created ditch largely respected the primary burial site although it cut the former enclosure ditches. The funerary enclosure may have remained as an earthwork for a short time, but appeared not to be remembered or respected after the Conquest. The cremation burials are discussed in detail in Chapter 5, accompanied by their radiocarbon determinations; they are referred to here in the wider context of the surrounding non-funerary features.

The post-Conquest reorganisation probably arose quite late in the 1st century AD, certainly not as an immediate change after AD43. The general spread of dates for pottery and the balance of radiocarbon results from burials tends to indicate the changes occurred at the beginning of the Flavian to Trajanic period (AD69–117) and that settlement did not extend much beyond this range, with the use of *busta* ending prior to AD70 and the post-Conquest reorganisation.

An enclosure ditch with an internal bank

The main evidence for this period comes from the northern portion of the site where a sub-rectangular enclosure was investigated connecting with a wider network of ditches (Fig 6.9). Four sides enclosed an area over half a hectare in size, although its exposure was slightly curtailed at the south and north-east edges by the scheme boundary. An entrance, 5.4m wide, lay on the west side between two ditch terminals. A few scattered pits lay near the entrance and inside the enclosure, which included two wells, one of them possibly timber-lined. There were no features that could be definitively associated with structures or buildings; however, given the recovery of floor tile (90 sherds, 3,860g) from many of the enclosure ditch sections a modest building might have been expected nearby. There was a total absence of substantial stone, *imbrex, tegula, pilae* or box flue tiles. Sill beam gullies or postholes for wooden frame structures of this date were not present, although possible structural slots have been identified for the early part of the 1st century AD (see above). Preservation of organic material was poor and there was no evidence for thatch, rushes or mats. Assemblages of pottery (113 sherds, 1,495g) and animal bone from the wells clearly demonstrated a domestic origin, but this may have been carted in from midden deposits elsewhere to fill the voids after disuse.

The western boundary of the enclosure was the most substantial, partly due to its topographical circumstances where the ditch followed a natural indent of the slope toward the north. This was a route along which water drained and the boundary presumably took advantage of this coincidence. The earliest sequence of deposits seemed to have been partly of colluvial and alluvial origin, incorporating silty clay within the matrix from surface in-wash. A sequence of firm dark red-brown and grey-brown silty clay that was devoid of finds or charcoal had settled in the indent of the slope (Fig 6.10, H[506], H[329]). Although there may have been a natural boundary such as a damp semi-permanent watercourse prior to and during the late Iron Age, finds were not deposited in it. A narrow gully, H[276], was noted at one point along the course, pre-dating the main enclosure ditch.

The boundary ditch H[239] cut through these colluvial and alluvial layers during the middle to later part of the 1st century AD. It was 2.0-3.5m wide and 1.0-1.5m deep with a fairly consistent wide V-shaped profile, slightly

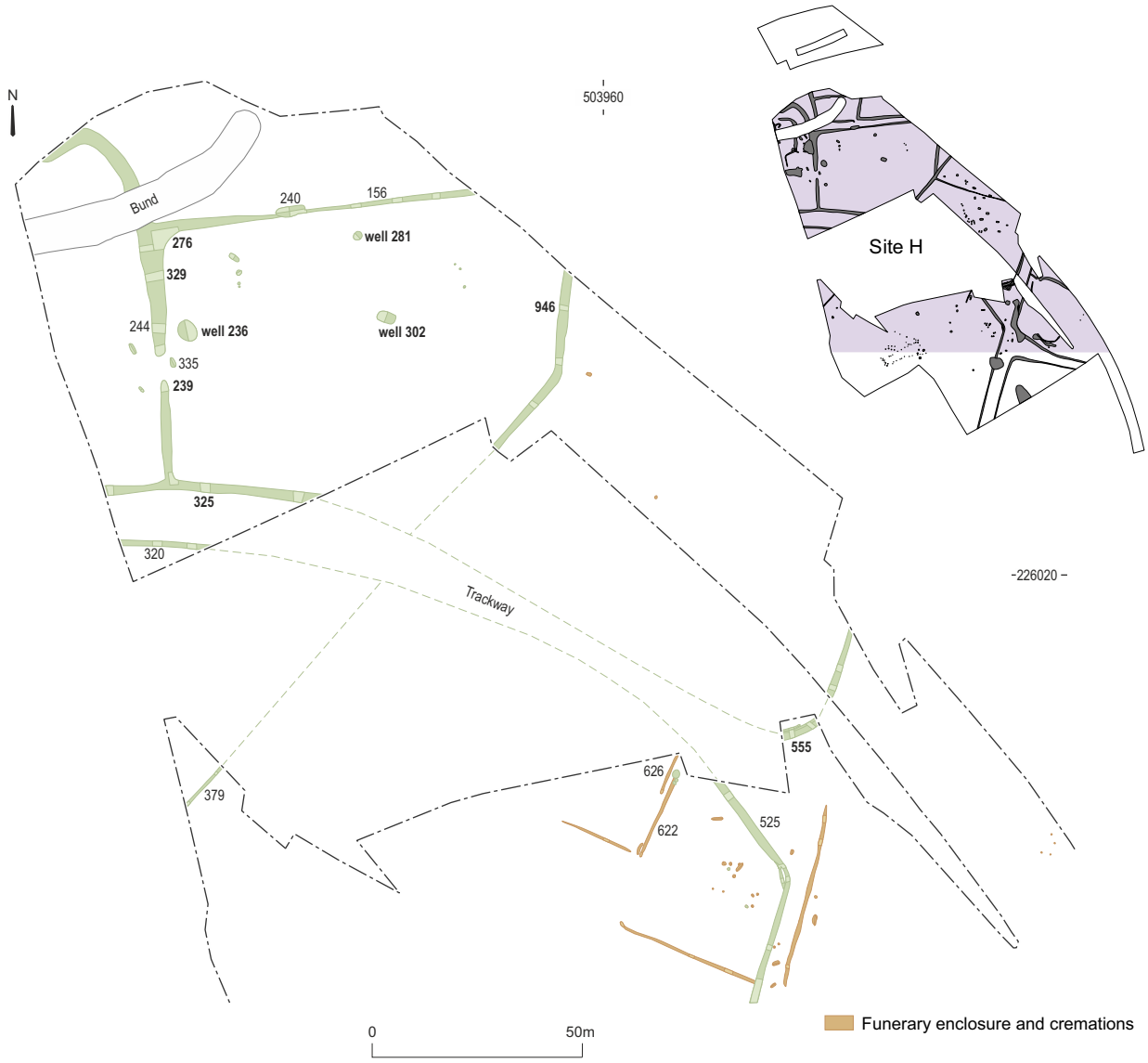


Fig 6.9 Post-Conquest settlement, trackway and enclosure, Site H

rounded at the base. Basal fill deposits of light grey-brown silty clay derived from in-wash and reflected the local geological variations of chalky till and orange-brown silty clay. Smaller quantities of artefacts were recovered from these initial deposits. Firm mid red-brown silty clay slumped into the ditch from the east (inner) edge of the enclosure ditch, visible as a distinct slip line at both terminals, and suggesting a bank on the inside. The southern terminal of the entrance exhibited a similar sequence to the boundary that extended north (Fig 6.10, H[239]). Above this slippage material accumulated grey-brown clayey silt, containing most of the artefactual evidence, which was probably deliberately infilled post-abandonment. The terminals either side of the entrance, whilst substantial, had no 'special' deposition with regard to the type, quantity of distribution of artefacts. There are 211 sherds (1,941g) of pottery from the two terminals, which was a greater concentration for the post-Conquest period than for other features (excluding the wells), but remains a very minor portion of the site assemblage overall. This was also the case with animal bone.

Bank material usually comprised redeposited soils derived from the natural superficial geology, which for this site was a combination of chalky till and red-brown silty clay. On the south side of the enclosure, ditch H[327] retained the V-shaped profile (Fig 6.10, H[325]). The fill was mottled grey-brown chalky clay in-wash towards the base and progressively darker towards the surface, becoming siltier clay. Here possible bank slippage was less discernible, but chalky deposits seemed to lie on the north (inner) side of the ditch.

The east boundary had sides that remained steeply sloped, but instead of being V-shaped, the base was wider and flat H[944]. Evidence for in-wash at the base of the ditch was minimal as this ditch was located at the

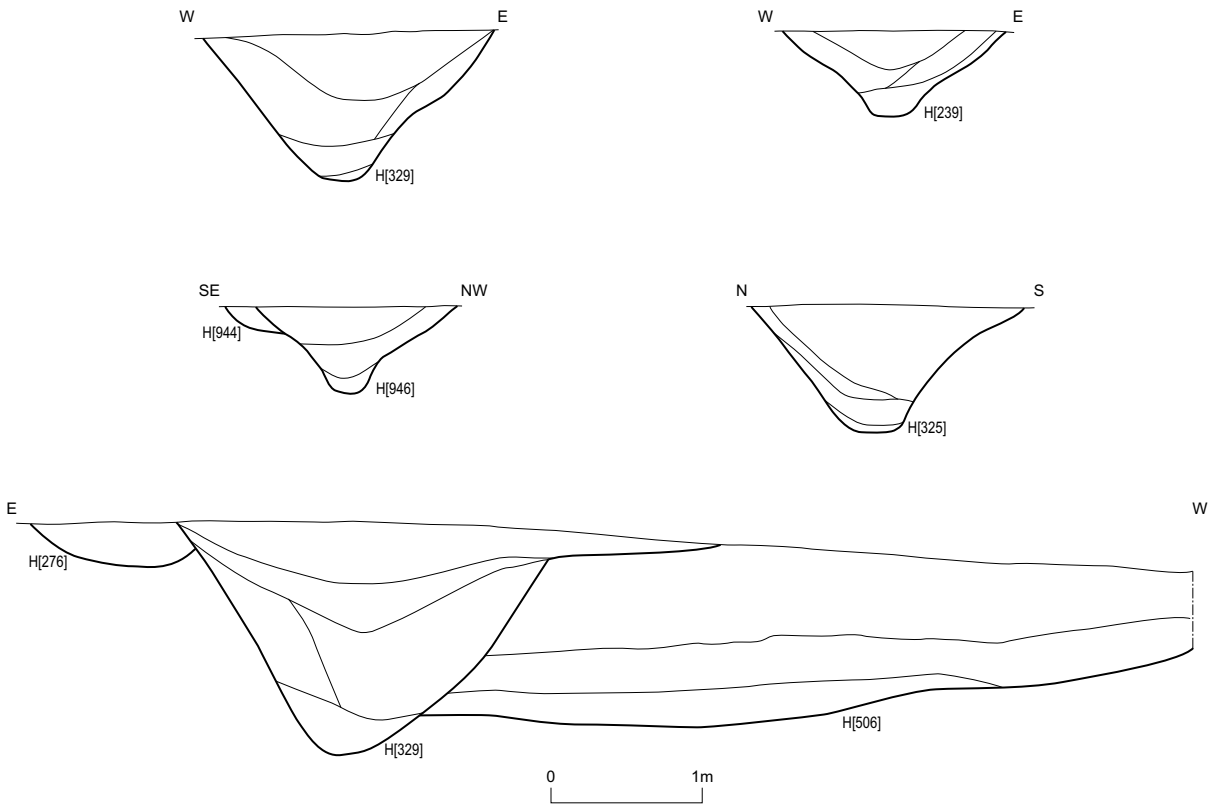


Fig 6.10 The main post-Conquest enclosure ditch

top of the hill slope, on fairly level ground. The bulk of the lower fill was friable brown silty clay with stones, overlain with a tip of chalky clay from the west (inner) edge, and with brown silty clay above it. This slippage was also present further along the east boundary (Fig 6.10, H[946]). Along the north boundary the V-shaped profile of the ditch was evident, although the degree of truncation was too great to determine whether the chalky fill in each of the sections lay against the south (inner) edge of the ditch where bank material would be expected to accumulate.

WELLS WITHIN THE ENCLOSURE

There were two wells inside the enclosure (Fig 6.9), both hand excavated to a safe working depth and then stepped out using machine excavation in order to investigate deeper deposits to a maximum reach of 5.5m deep. Neither well was bottomed; the HER records a Roman well from a nearby railway cutting that bottomed out at 12.2m deep (HER6659).

Well H[236] was the better preserved of the two examples. This was within the western enclosure entrance, on its north side. The well had a substantial construction pit which covered a large oval area in plan, 6.5m by 3.8m in extent, and was 0.85m deep (Fig 6.11, H[236]). The vertical shaft was circular in plan, 1.1m in diameter. Material filling the construction pit, mixed brown silty clay with a jumble of domestic waste, was packed in against the structure at the top of the well shaft. The shaft was eventually filled after its disuse leaving this structure *in situ*. The lining of the structure seems to have been of wood and held together with nails. After disuse the timbers rotted and the deposits settled, leaving a dark grey-black band of silty clay, 0.2m thick, in a near vertical band down the outside edges of the well shaft and splaying out near the surface. None of the timbers survived; although it is possible they may be found at the base of the well, below the water table and given the extreme depth, preserved beneath the construction depth of the highway. The main central fill of the well shaft was lighter brown-grey silty clay, also containing domestic waste. The pottery from the construction pit compared to the backfill of the shaft suggests a very short period of use, with whitewares present in both deposits.

The construction pit at the top of well H[281] was circular and highly truncated, 1.8m in diameter, sloping sharply into a well shaft, 1.1m diameter (Fig 6.11). In this instance there was no darkened deposit to indicate a timber lining and the well seems to have been cut directly into the chalk till. The fill of the shaft was grey-brown clay silt, containing domestic waste, with dumps of chalky clay near the surface.

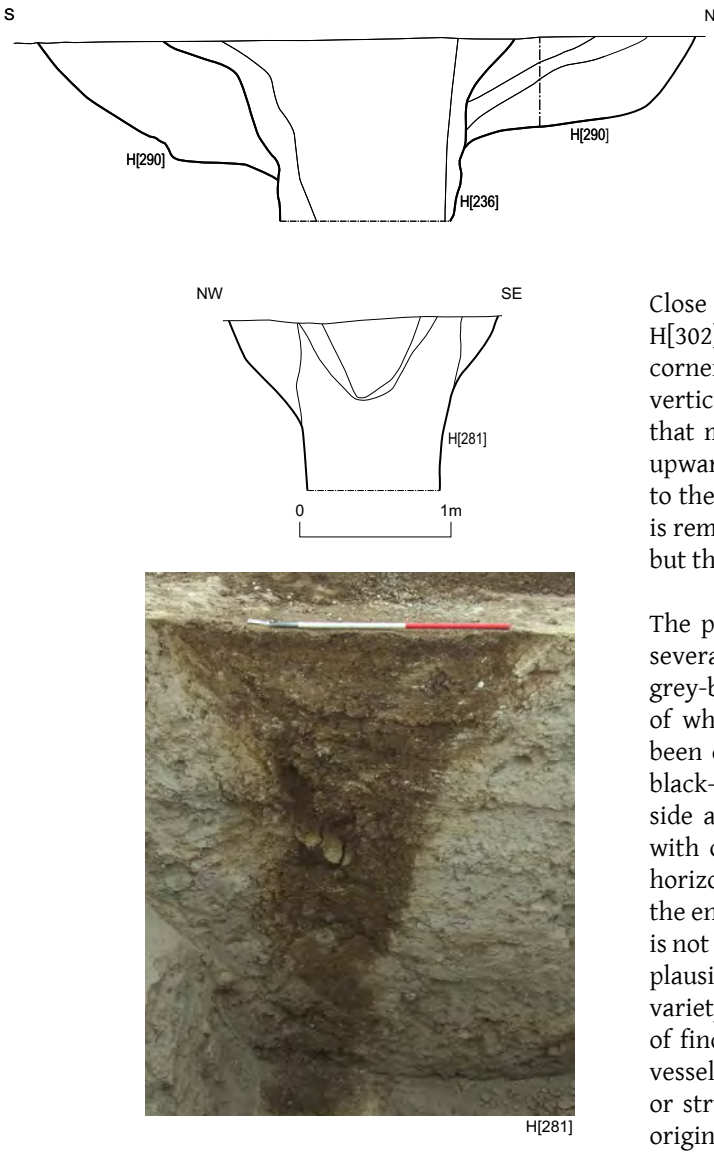


Fig 6.11 The Roman wells inside the main post-Conquest enclosure

PITS ASSOCIATED WITH THE ENCLOSURE

At the west entrance were three possible pits, two outside to the north and south of the entrance, and one just inside the middle of the entrance on its east side (Fig 6.9). The pits to the west of the entrance seemed likely to be of natural origin; they had sides that were gently sloped, barely perceptible as cut edges that merged towards an uneven and bumpy base like a tree throw.

Pit H[335] lay within the entrance and was 2.1m long and 1.27m wide with undercutting edges at the top, which became near vertical and then reached a flat base that was 0.6m wide. Grey-brown silty clay filled the pit, together small quantities of pottery and animal bone, but perhaps significantly also half of a Hertfordshire puddingstone rotary quern upper stone and fragments of lava quern. Querns occasionally occur in late Iron Age placed deposits at entrances, but the pottery from this context was post-Conquest in origin.

All seven of the other smaller pits within the enclosure were investigated; none of them were substantive, structural or provided significant artefactual evidence.

Close to the centre of the enclosure was a large pit, H[302], which was rectangular in plan with rounded corners, 3.9m long by 2.1m wide. The pit had near vertical, if slightly uneven, sides along three edges that met with a flat base. The north-west end sloped upwards steadily with two gullies rising from the base to the top of the corners of the pit (Fig 6.12). The form is reminiscent of flue channels, and also of drag marks, but the actual cause or purpose is unknown.

The pit had been backfilled with a variety of soils in several layers. The basal layers were variations of grey-brown silty clay with occasional charcoal on top of which a dump of fragmented chalk and clay had been deposited. Above this a distinct tip line of dark black-brown silty clay, rich in charcoal, from the one side and a tip of chalky clay from the opposite side, with orange-brown clay and chalk filling the surface horizons. The form of the pit and its central location to the enclosure may be important, although the function is not immediately apparent, an industrial use might be plausible. The filling of the pit was undertaken using a variety of sources, notable for the high concentration of finds that included complete vessels, samian ware, vessel glass and 15 nails, possibly indicative of a special or structured deposit which may be unrelated to the original function of the feature but be indicative of differential deposition of pottery parts within wells (Mills 2016).

CONTEMPORARY BOUNDARIES

A short length of ditch was aligned parallel to the south side of the enclosure creating the impression of a trackway, 11.5m wide, passing north-west to south-east across the plateau (Fig 6.9). Since this ditch fell largely within the unexcavated area the identification of a trackway cannot be confirmed. Ditch H[320] was quite shallow compared to its northern counterpart, probably due to truncation, as its form was similar to the base of ditch [325]. The ditch was 0.85m wide by 0.16m deep; it had steeply angled sides with a narrow flat base and the fill was entirely mid brown clay silt in-wash.

Further east the suggested continuation retained the same general fill and profile, but survived to a depth of 0.44m. The projected curving course of this boundary,

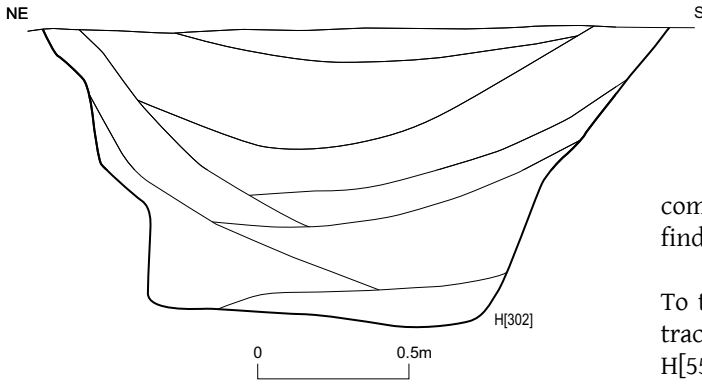


Fig 6.12 Pit H[302] at the centre of the main post-Conquest enclosure

H[525], cut across the northern side of the former funerary enclosure, changing direction to the south, but encompassing the central burial area within the arc of the boundary. Two cremation burials, H[604] and H[646], were interred in this location within the same period (see Chapter 5), and the location of the cemetery continued to be observed and respected. The former funerary enclosure boundary was presumably still visible as a low earthwork as a few pottery sherds of 2nd-century date found their way into its upper fill close to the boundary, presumably as a result of levelling activity.

Ditch H[525] was in use long enough to require maintenance and a recut was observed where it changed its direction. The profile remained fairly consistent, suggesting the truncated base of a steep-sided ditch with a narrow flattish base. Fills were also fairly homogeneous, comprising mid orange-brown clay silt in-wash and finds were few.

To the north of this boundary, a possible counterpart trackway ditch also changed direction to the north, H[555] (Fig 6.9). The overall plan portrays an entrance, 30m wide, opening out onto unenclosed land to the east. The north boundary forming this entrance was the only late Iron Age ditch to have been recut and maintained into the later part of the 1st and 2nd centuries AD (Fig 6.13). In its final form the boundary took a gently curving route, whereas in the late Iron Age it had changed direction more abruptly. The form and profile of the ditch changed from widely splayed sides and a rounded base, towards a sharply defined V-shaped cut. However, the fill sequence continued to accumulate varied orange and grey-brown clay silt in-wash, flecked with chalk, differing little from its predecessors. The continuous reinstatement indicated that this boundary was of some importance throughout the duration of settlement, although a lack of associated features and finds suggests that it was at the peripheral extent of activity.

A single boundary projected to the south-west, ditch H[379], which was 0.82m wide by 0.29m deep. The sides sloped steeply with a gentle curve into a flat base. The fill comprised light orange-brown clay silt, probably derived from in-wash. This may have been a continuation of the eastern enclosure ditch H[944] to the north as it followed the same line.

Boundaries and enclosures at Site Q

The settlement at Site Q was occupied during a similar time frame to Site H, although the lack of diversity amongst the pottery fabrics indicated it was abandoned by AD70. The occurrence of native style pre-Conquest pottery in small quantities indicated that its foundation

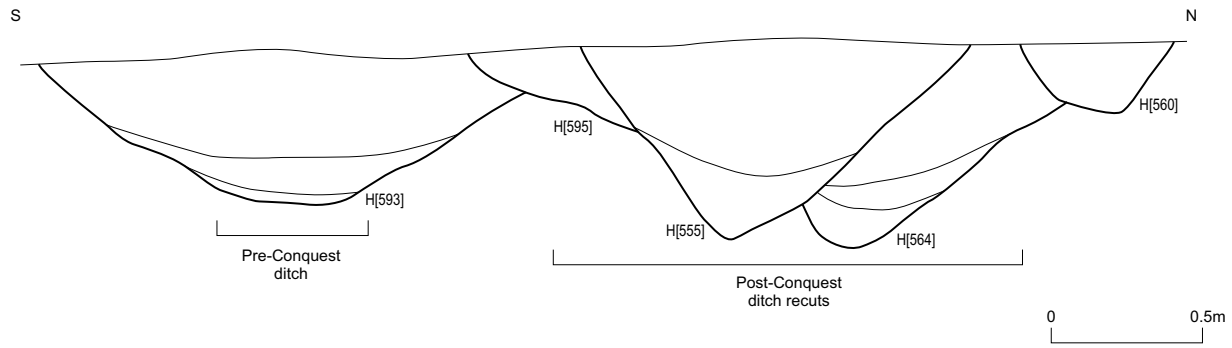


Fig 6.13 Sections of the contemporary post-Conquest enclosure ditches

was marginally earlier than at Site H. Geophysical survey data showed the largest features comprised the main enclosure ditches, but smaller features were not easily identifiable (Simmonds and Fisher 2008, figs 5-6; PCG 2014, figs 24-25).

The late Iron Age features included a sub-rectangular enclosure, a single isolated roundhouse and several boundaries, probably part of a wider landscape of field systems (Fig 6.14, 6.23-24). The late Iron Age ditches went out of use by the early-middle part of the 1st century AD. Shortly after, another enclosure was established with a substantial curved entrance that was maintained for a period of 30-60 years (Fig 6.18). Geophysical survey indicates several adjoining enclosures existed to the south all being abandoned by AD70. A single ditch post-dated the enclosure and was disused in the early part of the 2nd century AD. The funerary evidence comprising three cremations and one inhumation burial of a child buried in a seated position is presented in Chapter 5.

The Site Q excavated area was a fairly narrow rectangular transect along the A5–M1 link road covering *c*.1.10ha. Settlement remains dating from perhaps the 2nd century BC was found and continued to about AD70.

The land in the lower flood plain of the Ouzel Brook is largely flat with the slope across site towards the stream channel almost imperceptible. The geology is grey-white chalky clay, although a broad area of orange-brown sandy clay and gravel lies across the central portion of Site Q.

LATE IRON AGE SETTLEMENT

Parts of two probable enclosures were exposed (Fig 6.14); however, the regular alignment of boundaries suggested they may have been foci within a wider landscape of field systems. Late Iron Age ditches were aligned north-west to south-east, sometimes with small groups of scattered pits in close proximity. Many of the pits and short gullies were undated but lay in close proximity to dated boundaries. One inhumation and two cremation burials were situated within the north of the exposed area within the ditches. Set apart from the enclosure and the burials by *c*.90m was a single isolated roundhouse with a short duration of use. Two other boundary ditches near the roundhouse suggested another enclosure extending south of the excavated area, adjacent to which another isolated cremation burial was recovered. The burials are discussed in detail in Chapter 5.

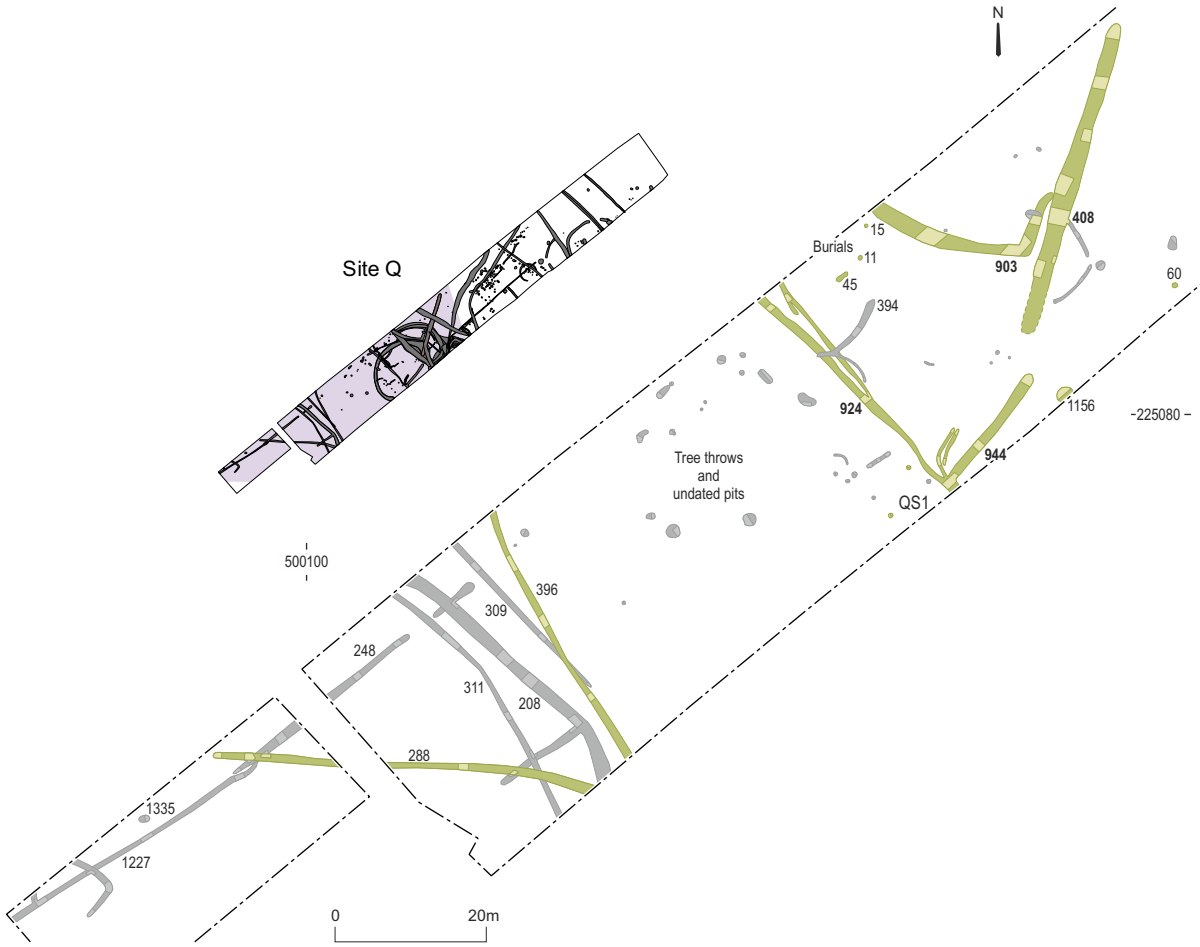


Fig 6.14 Late Iron Age boundaries and enclosures, Site Q

A PROBABLE SUB-RECTANGULAR ENCLOSURE

Elements of a probable sub-rectangular enclosure were exposed within the central portion of the excavated strip that lay at the base of a chronological sequence of intercutting ditches (Fig 6.14). The sub-rectangular area was over 693sqm in extent; its northern portion lay beyond the limit of excavation. The principal components comprised two ditches with recuts to either side of an entrance 5m wide on its southern boundary, a slightly curving ditch on its eastern side and a ditch with a recut on its western side.

Along the southern boundary, ditch Q[944] was initially fairly shallow and rounded. This quickly filled with light brown-grey sandy silt and was recut with a wide V-shaped ditch (Fig 6.15). The accumulations of fill from the base upwards comprised darkening tones of grey-brown sandy silt derived mainly from in-wash and incorporating occasional finds. The west terminal of the entrance was not particularly substantive, 1.03m wide by 0.27m deep, and there were no specific finds within it. The east terminal was obliterated by a later ditch and its likely position is deduced by the continuation of ditch Q[408] to the north-east. The profile of the ditch along this side of the entrance was almost identical and demonstrated the same sequence of deposition. The boundary extended north-east, projected beyond the east side of the enclosure, and giving the impression of further small enclosures to the north.

The north-east side of the enclosure, Q[903], had been cut and then recut on two occasions (Fig 6.15). Little remained of the initial ditch profile, sufficient only to determine that it had had a rounded base, 0.6m deep. Brown-grey sandy silt had accumulated within the ditch, and although the subsequent recutting of the ditch removed much of the original fill, subsequent fills remained consistent. The boundary received maintenance along the same lines as the original, both in proportion and profile. At its south-east extent, rather than meeting ditch Q[408] in a junction, it took a turn to the north-east to follow the course for 9m before terminating.

On the west side of the enclosure the north-west to south-east boundary also extended beyond the junction with ditch Q[944], giving the impression that this was

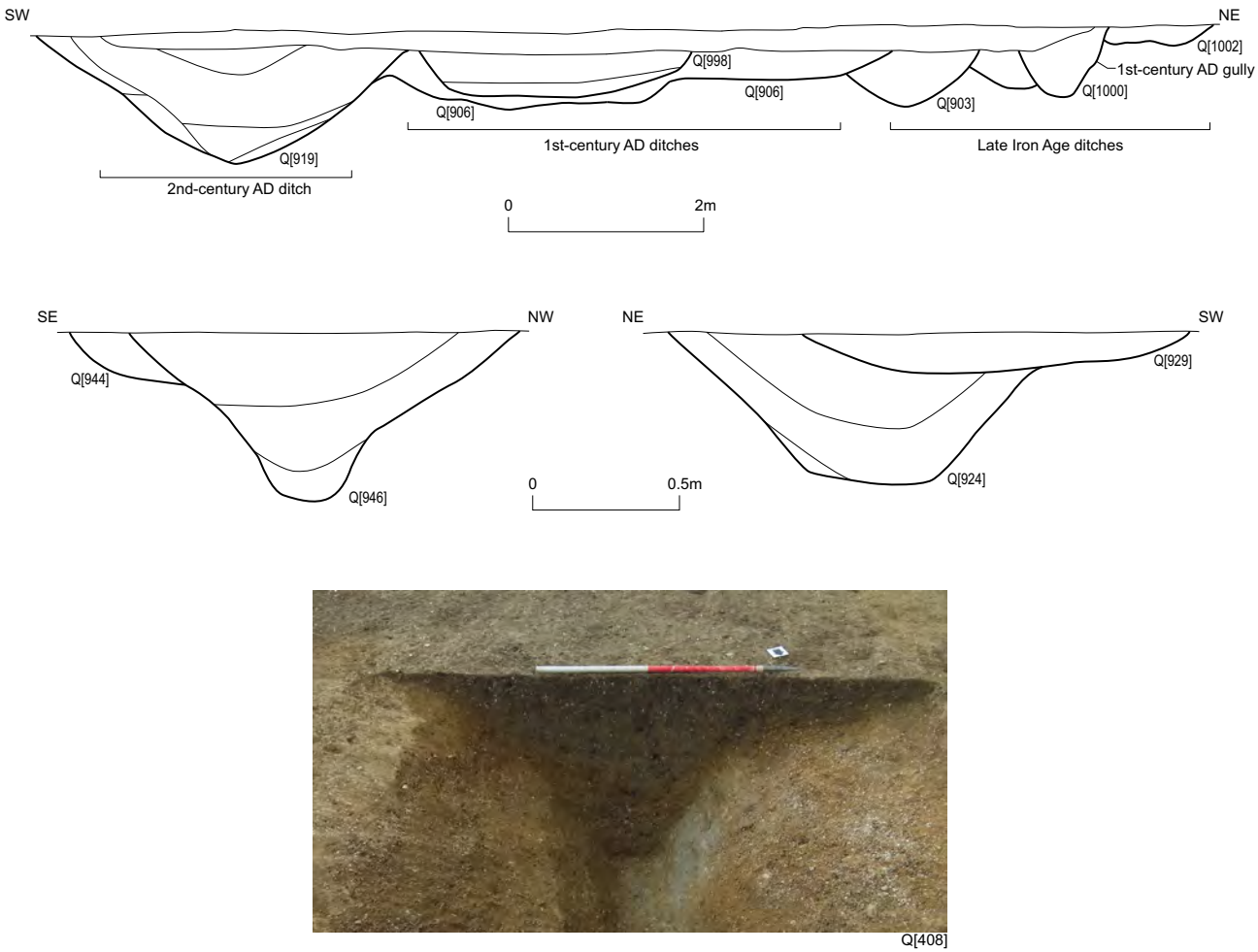


Fig 6.15 Sections of the late Iron Age enclosure ditches and later stratigraphy

part of a wider boundary distribution. The ditch had steep sloping sides and flat base (Fig 6.15, Q[924]), with a fill sequence alike to the other boundaries. Whilst this ditch was subject to minor realignments, these were fairly shallow and it was never recut to its original dimensions. Potentially, the boundary was allowed to fall into disuse whilst the other boundaries continued to be maintained.

Within the enclosure, at the edge of excavation and well away from the entrance, lay inhumation burial Q[45] which dated either from the late-middle Iron Age or late Iron Age, and two urned cremation burials Q[11] and Q[15], interred in Aylesford–Swarling type jars (see Chapter 5; Table 5.14). The spot dates of these burials, whilst not wholly concise owing to the long period of use for the pottery and the variability of the radiocarbon curve, may fall in the late 1st century BC. The late Iron Age date of the urned cremation burials is consistent with the pottery from the surrounding enclosure ditches. The inhumation burial is less certain, but based on the radiocarbon calibration there is a 32% probability that it is not an isolated late-middle Iron Age burial.

With the exception of the burials the only other features within the enclosure were undated; these included ditches, gullies and a few dispersed postholes. A short ditch extended from the west boundary that pre-dated the recutting of the west enclosure boundary. The dimensions and fill of ditch Q[394] compared favourably with the west boundary and may have been a subdivision of the enclosure.

A small group of three circular postholes, just within the eastern enclosure entrance, had vertical sides, each with a flattish base. They were of similar proportions, no more than 0.24m in diameter and up to 0.16m deep.

Gully channels may have drained into the west boundary of the enclosure; they were cut with steep sides and flat bases, the largest gully at 0.57m wide by 0.26m deep.

Scattered features in the vicinity of the enclosure

A moderate quantity of pits, some postholes and short gullies were amongst 36 other features near the enclosure; only three of these were dated by pottery to the late Iron Age (Fig 6.14). The remainder were undated and lay in the vicinity of the enclosure and its 1st-century AD developments.

Pit Q[1156] was immediately outside the enclosure entrance, partly beneath the southern baulk. It was originally over 1.0m wide and 0.4m deep, most of it cut away by a later ditch. Grey-brown clayey silt filled the pit, incorporating pottery and animal bone. Elsewhere in the vicinity the features contained a few undated bone elements

A group of four postholes (QS1) lay immediately to the south-west of ditch Q[924] in a rectangular arrangement, 6.0m long by 3.3m wide, possibly a structure. Two of the postholes at diagonal opposite corners produced Aylesford–Swarling type wares, but also lay within the circuit of the enclosure of the 1st century AD. These circular postholes had fairly straight, near vertical sides and flat bases. Their dimensions were in the range of 0.25-0.45m diameter and up to 0.2m deep. The fills tended to be slightly differentiated with lighter orange brown sandy silt near to the base, derived from the natural, while the upper fill was darker grey-brown presumably from infill after removal of the posts. No packing stones were present.

Two gullies and three sub-circular pits immediately to the north of these four postholes may have been ancillary to the group. The form of these features did not appear to be structural as the sides were widely splayed and the overall profile of these features was rounded and dish-like, their fills undifferentiated. They appeared to respect the north side of the four-post arrangement.

More widely distributed undated pit-like features were planned to the south-west of ditch Q[924], many of which were probably not of archaeological origin as their shapes, forms and patterns of deposition were so inconsistent. None of them produced finds and they are thought to mainly derive from various morphological soil variations associated with ancient root disturbance, animal burrows and geology.

On the east side of the enclosure, two undated short gullies and two pits lay adjacent to ditch Q[408]. The gullies connected to the ditch, with an entrance 1.0m wide between them. They were not sufficiently curved to suggest fragments of a roundhouse and seemed only to define a small area adjacent to the main enclosure entrance. The gullies were shallow, with a rounded profile, 0.45m wide by 0.20m deep and filled with orange-brown sandy silt in-wash. The nearby pits were sub-circular, rounded in profile, a little over 1.0m wide and up to 0.26m deep and were filled by grey-brown sandy silt.

Three possible postholes lay to the north of the enclosure, but were dispersed unevenly. They were little more than circular grey-brown soil marks up to 60mm deep.

Other boundary ditches

Linear boundaries were exposed in the south-west extent of Site Q, where it met with the targeted

watching brief of Site G; records are divided between the two sites (Fig 6.14).

Three short lengths of ditch G[1227] were aligned north-east to south-west, with the middle section recorded as G[248] and then there was a gap, 4m wide, before a short section at the north-eastern end. The ditch was most substantial at its south-west end where the profile was V-shaped, filled with dark grey-blue clay. This gradually became shallower to less than 0.15m, where it became a broader flat bottomed gully. Further ditches crossed or extended from the boundary at the south, together with a single undated sub-circular pit, G[1335], that had steep sides and a flat base that created a bowl-like effect. The pit was 0.79m wide by 0.23m deep, filled by mottled dark brown-grey sandy clay with occasional charcoal flecks.

Most other boundaries lay perpendicular and a few were stratigraphically related, but only two produced finds. The layout was revised in loose proximity resulting in a trend for the boundary to migrate within a 15m wide zone. Gully Q[309] had steeply cut sides and a narrow flat base that gradually thinned out at its south-east end The fill was orange-brown sandy gravel. It was cut by ditch Q[396], which remained fairly narrow, but was U-shaped and filled with brown-grey sandy clay in-wash.

Another group of intercutting ditches had ditch Q[208] as the initial boundary, although this clearly cut the north-eastern segment of ditch G[1227]. Boundary ditch Q[208] may have had a longer period of use, with two recuts evident. Initially it was a fairly wide ditch which had steeply sloped sides that met sharply with a flat base, which filled with brown-grey sandy clay. A short south-westward spur was present in plan at a point where the boundary took a minor change in direction. Later recuts were narrow V-shaped channels, although the fills varied only slightly in colour and texture. Another narrow slightly curving V-shaped channel, Q[311], was cut following a similar route, and was filled with light grey-brown sandy clay.

Latest of the sequence was ditch Q[288], aligned east-west with a terminal at the west end. This V-shaped ditch was filled with brown-grey sandy clay in-wash, darker and loamier at the surface, and was perhaps deliberately backfilled at its end use.

An isolated roundhouse

A single roundhouse lay *c.*70m north-east of the enclosure (Fig 6.16). The south-east side of the roundhouse had been lost to later disturbance and so the location of its presumed entrance was uncertain. The ring gully had a fairly well-formed circular shape in plan that was a little over 10m internal diameter. Within its interior there was a pit, slightly off centre to the north, with two postholes either side. A further five postholes were dispersed across the interior, excluding those of later date, and the most substantial of these lay at the centre.

The ring gully had a single cut with steeply angled sides and a flattish base, filled with mid grey-brown silty clay. The roundhouse may have had a relatively short period of use compared with earlier examples at Site G, some of which had multiple recuts. Pottery and animal bone occurred in low quantities within the roundhouses features.

Within the interior, pit Q[126] was packed with burnt stone. The pit was 0.8m wide, formed by a shallow gently curving hollow, 80mm deep (Fig 6.16). The fill between the stones was dark grey silty clay with little sign of charcoal and no scorching of the natural. Either side of the pit were circular postholes, 0.2m in diameter and 50-80mm deep. They had near vertical sides and were flat at the base, filled with grey-brown silty clay.

Most of the postholes within the gully circuit were fairly minor and were marginally larger than those set either side of pit Q[126]. Two of them were in the south-east quadrant and two lay in the south-west quadrant. Posthole Q[122] was the most significant, positioned fairly centrally, and had steep near vertical sides to a narrow rounded base (Fig 6.16). This was the only internal feature large enough to in proportion to be deemed structural. The fill comprised dark brown silty clay at the base and grey-brown silty clay at the top in which late Iron Age pottery was found.

Whilst there were many pits outside the roundhouse, a lot of these were medieval or associated with an 18th-century fence line (see Chapter 8). Some residual late Iron Age pottery of 1st-century AD date was noted alongside sherds of 12th-century date across the wider area. Undated pits within this distribution are considered more likely to be medieval, although a few may date to the late Iron Age.

A probable late Iron Age enclosure and linear boundary

About *c.*25m to the north-east of the roundhouse was the curvilinear ditch of a probable enclosure (Fig 6.17), which was partly indicated by the geophysical survey data (Simmonds and Fisher 2008, figs 5-6). There was an entrance, 7m wide, between this and another ditch terminal to the east, which continued along the same arc clockwise to the south-east. A separate linear boundary ditch aligned north-west to south-east passed between the terminals and whilst all three ditches produced late Iron Age pottery, there was no physical relationship to ascertain which of these was earliest.

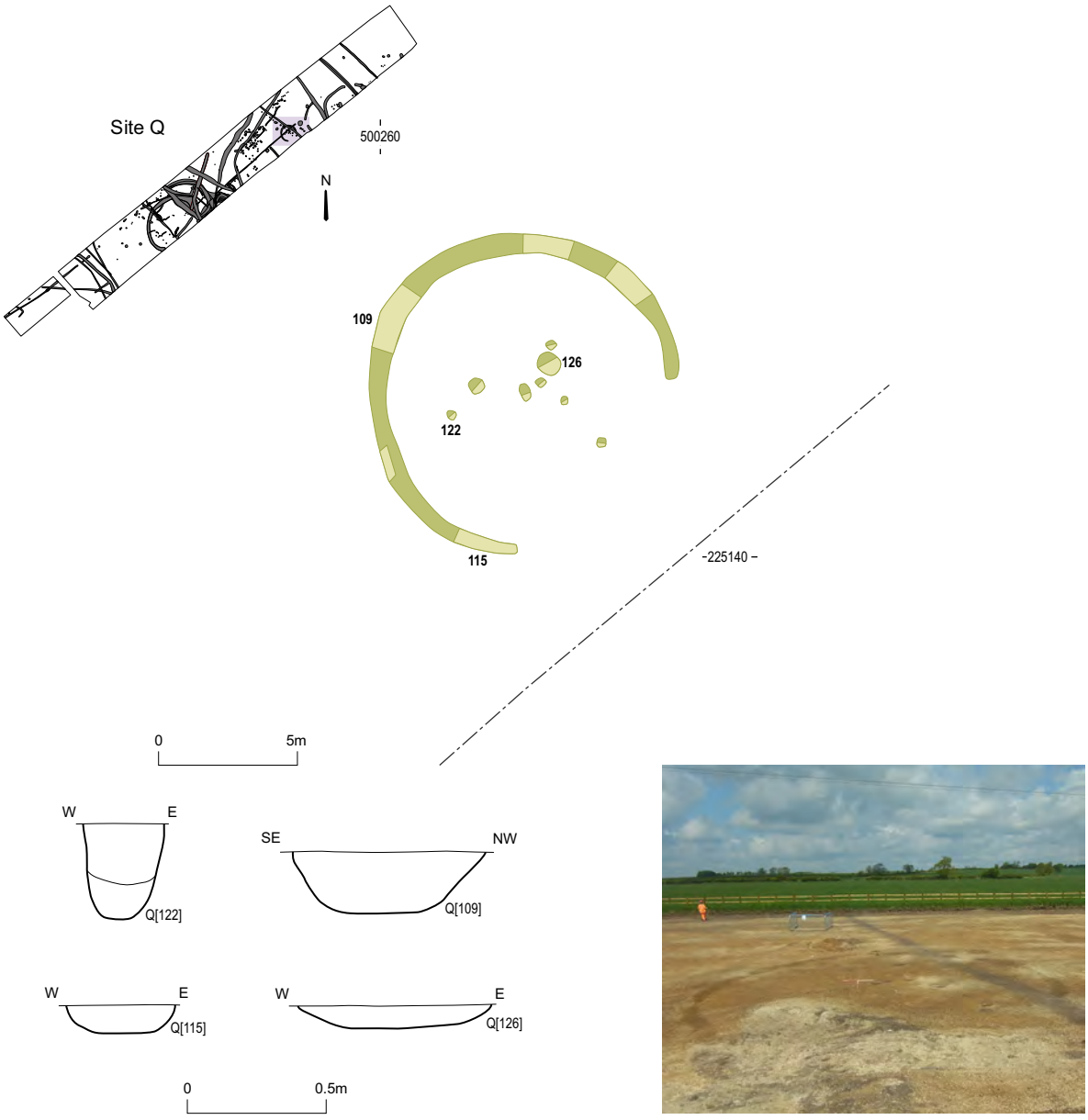


Fig 6.16 An isolated late Iron Age roundhouse, Site Q

The western arm of the probable enclosure was defined by ditch Q[33] (Fig 6.17). This substantial V-shaped ditch had accumulated light grey-brown chalky clay near the base eroded from the natural edges, with later accumulations incorporating more orange-brown silty sand into the mix. Another V-shaped profile was evident for the eastern arm of the enclosure, ditch Q[1138] (Fig 6.17). Here the soil coloration was consistent, although the texture was more gravelly. The boundary had a single cut that varied in depth along its course between 0.85-1.35m deep.

By comparison the linear ditch that passed between the terminals of the curving boundary was only 0.45m at its deepest point and was also recut twice (Fig 6.17, Q[971]). The earlier cuts were both fairly shallow and rounded; the latest recut had a shelf half way down on both sides with a V-shaped profile along the base. Basal deposits tended to comprise silty chalky clay with later accumulations including black-brown sandy loam. The difference in the texture of later fills was slight but consistent along the course that suggested a difference in the land surface from which they derived in-wash and organic detritus.

Within the area defined by the arc of ditches Q[33] and Q[1138] there lay a large irregular tree throw, and a number of postholes, all in close proximity. The boundary ditches were dated by a few sherds of pottery but none of these internal features produced datable finds.

Four circular postholes lay close to the tree throw; three were in a row north-east to south-west alignment

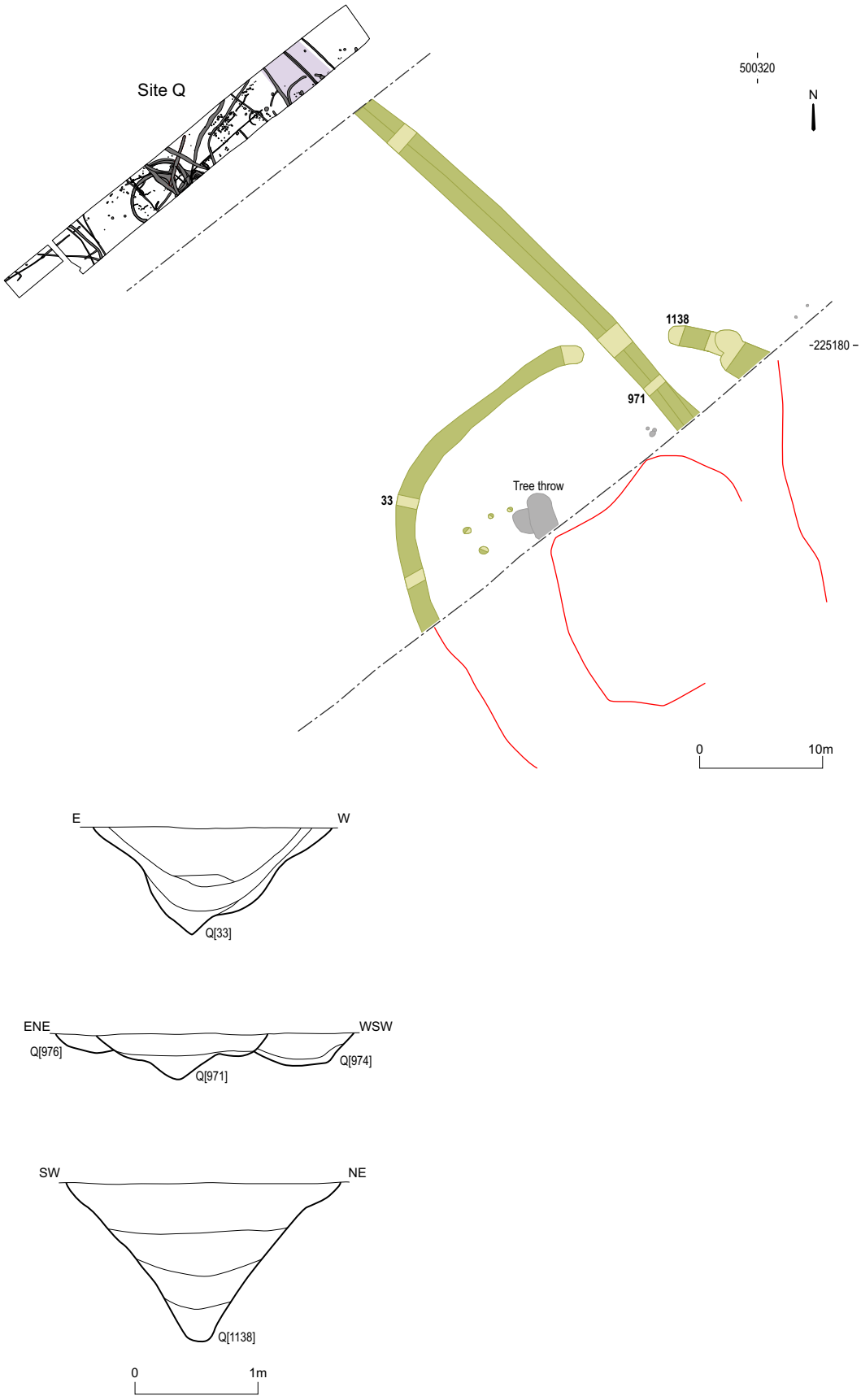


Fig 6.17 A probable late Iron Age enclosure and linear boundary, Site Q

at irregular intervals between 1.6m and 2.2m apart. The fourth was offset at the south-west end by 1.5m, giving an L-shaped arrangement to the group. The postholes had vertical sides and flat bases. The largest posthole was the one that was offset; it was 0.2m in diameter and 0.14m deep and was also the only one containing a post-pipe.

Within the boundary, *c.*12.5m to the north-east, there were three similarly proportioned postholes in a tight cluster, perhaps reinsertions for a single standing post; as one was certainly the recut of another. These were undated.

AN ENCLOSURE, MID 1ST-CENTURY AD

The late Iron Age ditches went out of use and were not replaced; a situation that occurred by at least the early-middle part of the 1st century AD. In the period after this and prior to *c.*AD70 a tightly focused enclosure group, *c.*0.16ha in extent, was established partly within the excavation area with the remainder to the south recorded by geophysical survey (Fig 6.18; Simmonds and Fisher 2008, figs 5-6; PCG 2014, figs 25-26). A substantial entrance at the northern end was created and maintained for a period of between 30–60 years (Fig 6.18). Further developments in around the middle part of the 1st century AD redefined and recut ditches along the east side of this enclosure, which remained a focus for activity until *c.*AD70.

The relative scarcity of artefactual evidence, given the size of the ditches and the amount excavated by hand indicates that this might have been a non-domestic enclosure. No other contemporary features lay outside of its footprint.

THE ENTRANCE

Two ditches forming an entrance defined a route 45m long and *c.*4-5m wide, which followed the spiralling curve of the inner ditch clockwise from the north-west into the enclosure (Fig 6.18). When entering, the outer ditch lay upon the left and the inner ditch lay upon the right. Initially the ditches were relatively small, 0.45-0.55m deep. They were heavily recut and so the initial ditches were hard to define. The steep sloping sides of the earliest cuts, were observed in section (Fig 6.19),

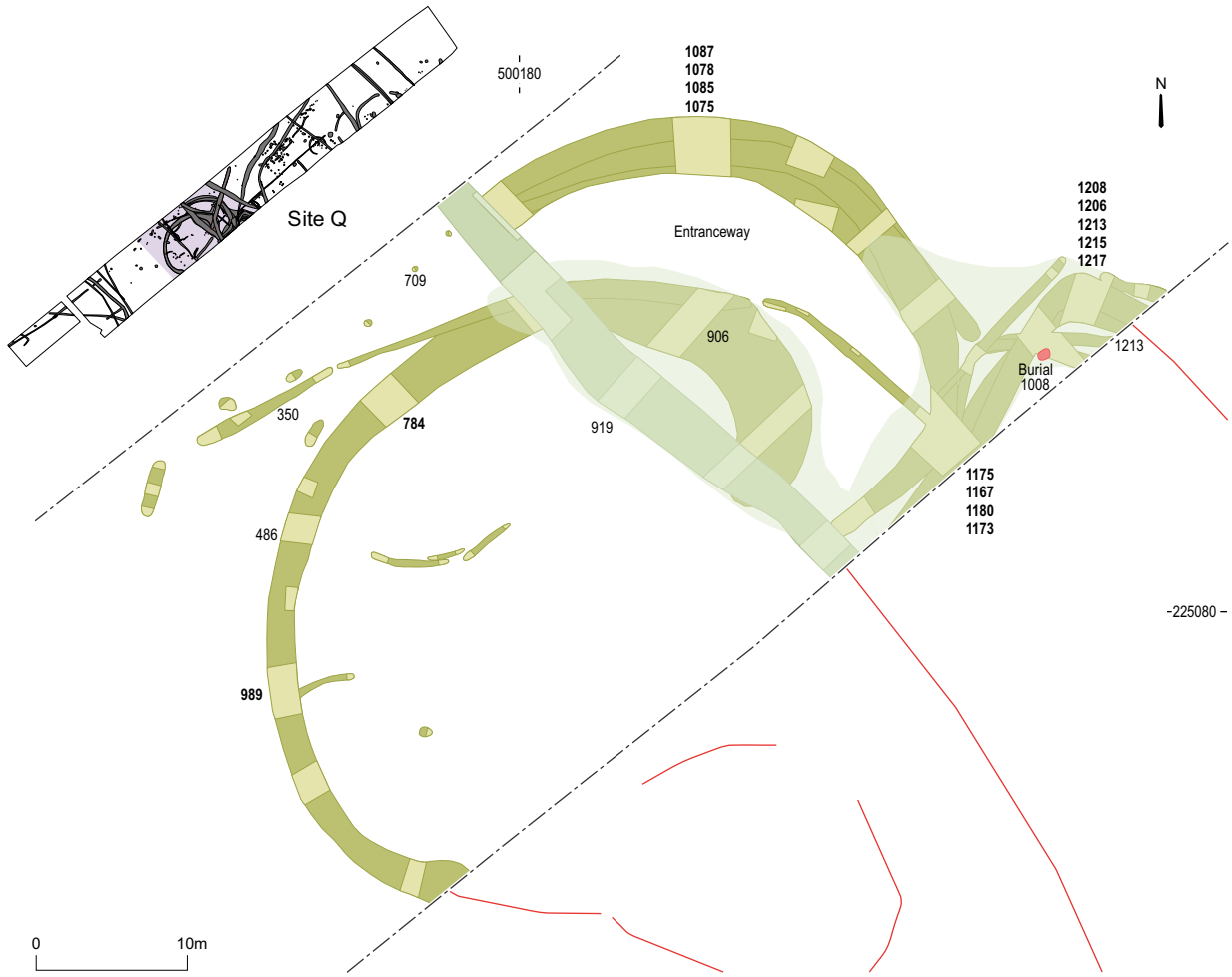


Fig 6.18 An enclosure entrance of the 1st century AD, Site Q

filled by light orange-grey clay silt merging towards grey-brown clay silt at the surface, and pre-dating much more substantial recuts.

The ditch recuts exhibited prominent V-shaped sides wherever a full ditch profile survived intact, varying between 1.0-1.4m deep (Fig 6.19). This was observed both along the outer perimeter, and where the perimeter joined to a presumably internal branch of the enclosure boundary (Fig 6.19). On the inner side of the entrance, the ditch, Q[906] became broad and shallow (Fig 6.15). At irregular intervals along the inner edge of the ditch there were points where the sides splayed outwards, showing greater erosion of the inner edge, but with no evidence for slippage of bank material. The fill provided consistent evidence for in-wash with lighter orange or brown-grey clay silt merging with darker clay silt at the top. Iron panning was common and may indicate fluctuating water levels. Artefactual evidence was fairly low, and although the preservation of animal bone was fair, the relatively low quantities were also reflected in the pottery assemblage (238 sherds, *c.*1.9kg). Some of the later fill derived from the cut of a boundary driven through the former enclosure earthwork in the 2nd century AD, its spoil used to level nearby hollows, but even this was covered by a homogeneous layer of mid brown-grey sandy clay filling the surface depressions. Later pottery sherds were still being incorporated in the sag infill of the earthwork in the 18th century.

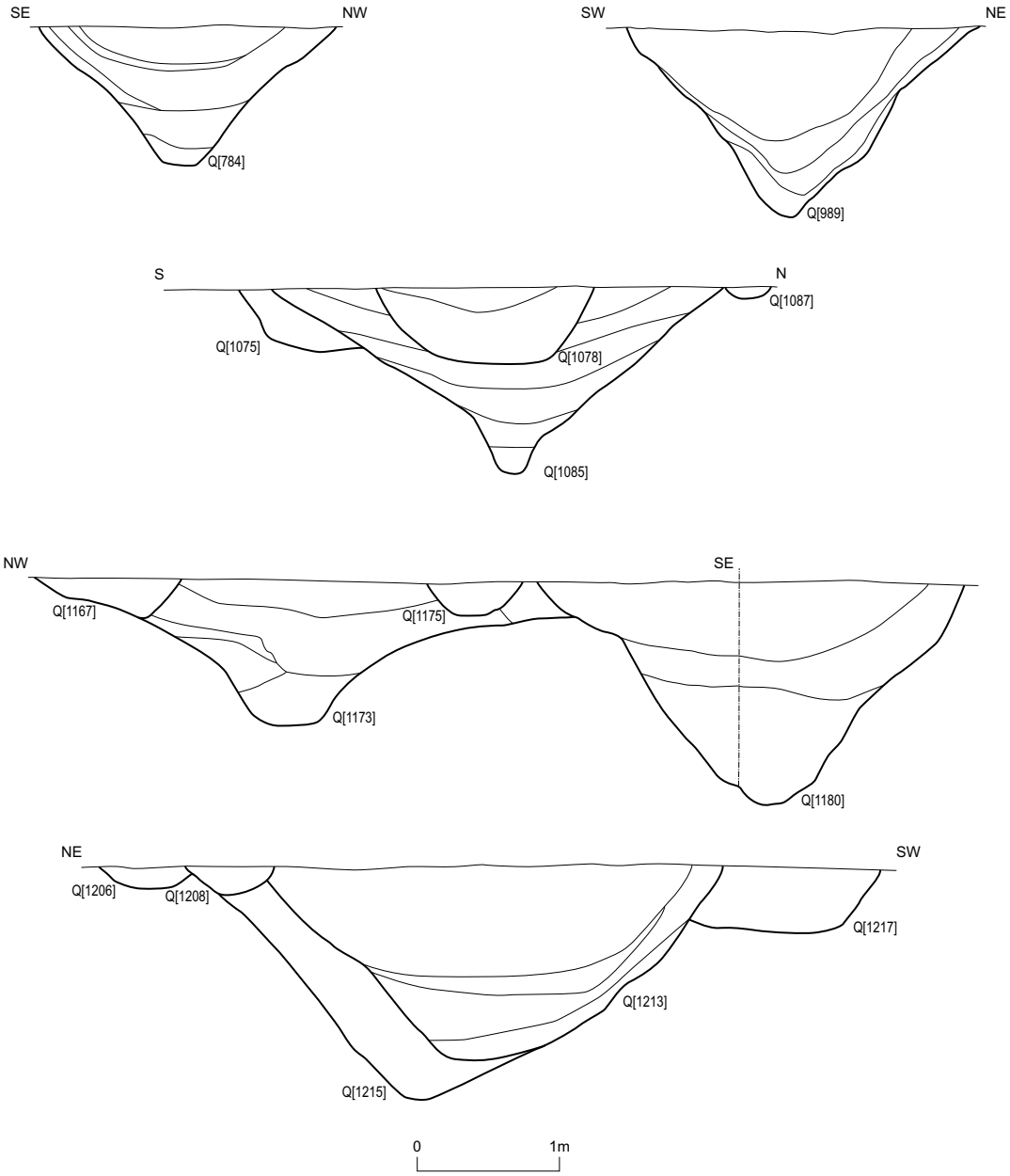


Fig 6.19 The enclosure ditches, 1st century AD

A line of five sub-circular postholes extended westwards from the entrance and may have been a fenceline extending its length further by *c.*20m (Fig 6.18). The best example, Q[709], was 0.35m wide by 0.22m deep with vertical sides and a U-shaped base. The fill at the base and sides was orange-brown sandy clay, whilst the post-pipe contained darker grey-brown silty clay loam.

Further enclosure boundaries extending to the south

Further boundary ditches exposed at the edge of excavation were of the same date (Fig 6.18). These ditches formed the north corner for a large enclosure identified on the geophysical survey as a sub-rectangular enclosure lying beyond the road scheme to the south (Simmonds and Fisher 2008, figs 5-6; PCG 2014, figs 25-26). The overall plan was slightly pear-shaped, narrower at the north end where the edge of the ditch was exposed by excavation, covering an area of *c.*0.28ha with internal divisions. The stratigraphic sequence of deposition at the north side of the enclosure was similar to and almost contemporary with the entrance to the adjoining enclosure. However, since these curving ditches had been filled before the larger enclosure could be established the likelihood was that one was the successor of the other.

The north-east corner of this enclosure originally had a modestly-sized ditch that was little more than 0.40m deep (Fig 6.19). The dark yellow sandy silt filling ditch Q[1217] was almost entirely redeposited from natural in-wash.

A substantial V-shaped ditch, Q[1215], similar in size to the recuts along the entrance ditches, replaced this initial boundary. The westward extent of the ditch retained the overall form, with a slightly rounded base (Fig 6.19), and it showed a clear stratigraphic relationship between the two enclosures. The larger enclosure beyond the road scheme was an extension, addition or replacement of the excavated portion with the spiralling entrance. Ditch Q[1215] accumulated brown-grey silty clay fairly rapidly, growing darker towards the surface and incorporated a greater quantity of discarded waste materials from fewer sections than the entrance to the neighbouring enclosure (293 sherds, *c.*3.7kg). These rapid accumulations made the maintenance of this boundary a higher priority than for the previous enclosure and it was recut on a second occasion. The fill within the recut comprised mainly in-wash with lighter brown-grey clay silt, much of which may have accumulated post-abandonment.

A narrow sinuous and discontinuous gully stretched across the top of the features, Q[350], traced through excavated sections (Fig 6.18). The gully retained the inner boundary of the enclosures to the south, cut directly across the former entrance and then followed the outer edge of its inner entrance ditch, suggesting that the process of infill of this substantial feature was incomplete. For the most part the gully was shallow and rounded (Fig 6.19, Q[1175]), but as it crossed the entrance it became much more substantial (Fig 6.15, Q[1000]). It terminated outside the enclosure with a series of short abutting sections that all had a steep U-shaped cut. Fill constituents comprised varied shades of grey and black-brown silty clay, however, the overall quantities of finds were generally much more frequent, constituting mainly animal bone and pottery but still at fairly low levels. Periodic dumping of waste material was also evident, which included a discrete dump of possible hearth waste (mainly charcoal) in ditch Q[350], outside the enclosure.

Cutting the inner edge of a late boundary was a inhumation burial, Q[1008], which had been uniquely interred in its grave in an upright seated position (see Chapter 5). The skeletal remains belonged to a child of less than six years of age, and the burial occurred as the last stratigraphic event before the enclosure was abandoned.

A boundary, late 1st to early 2nd centuries AD

A boundary ditch was aligned north-west to south-east, cutting directly across the abandoned enclosure in the late 1st century AD and was itself disused from the early part of the 2nd century AD (Fig 6.18).

The ditch, Q[919], was a major boundary, *c.*4m wide by 1.5m deep, that was cut with 45º sloping sides that met in a slightly rounded base (Fig 6.15). The base and sides accumulated thin lenses of orange sandy gravel that had eroded from the natural into which it was cut. Above this thicker grey-orange gravelly sand included in-wash from surface run off, which became more frequent and produced a change in texture from sandy to silty clay nearer to the surface.

Sealing the abandoned earthwork and the surrounding features of the 1st century AD was a homogeneous layer of mid brown-grey sandy clay.

Four-post structures at Site F

Two undated possible four-post structures were recorded at Site F (Fig 6.20). They were found upon the same slope as a cremation cemetery containing urned and furnished burials of the 1st century AD, being 18m to the north and 100m to the south (Fig 6.20, and Chapter 5). The northern group of postholes (FS4) lay on the mid-point of slope and the southern group (FS3) was positioned upon the valley ridge.

Although virtually every other feature in Site F was dated by pottery to the medieval era, residual late Iron Age/early Roman sherds suggested that these features were more likely to be contemporary with

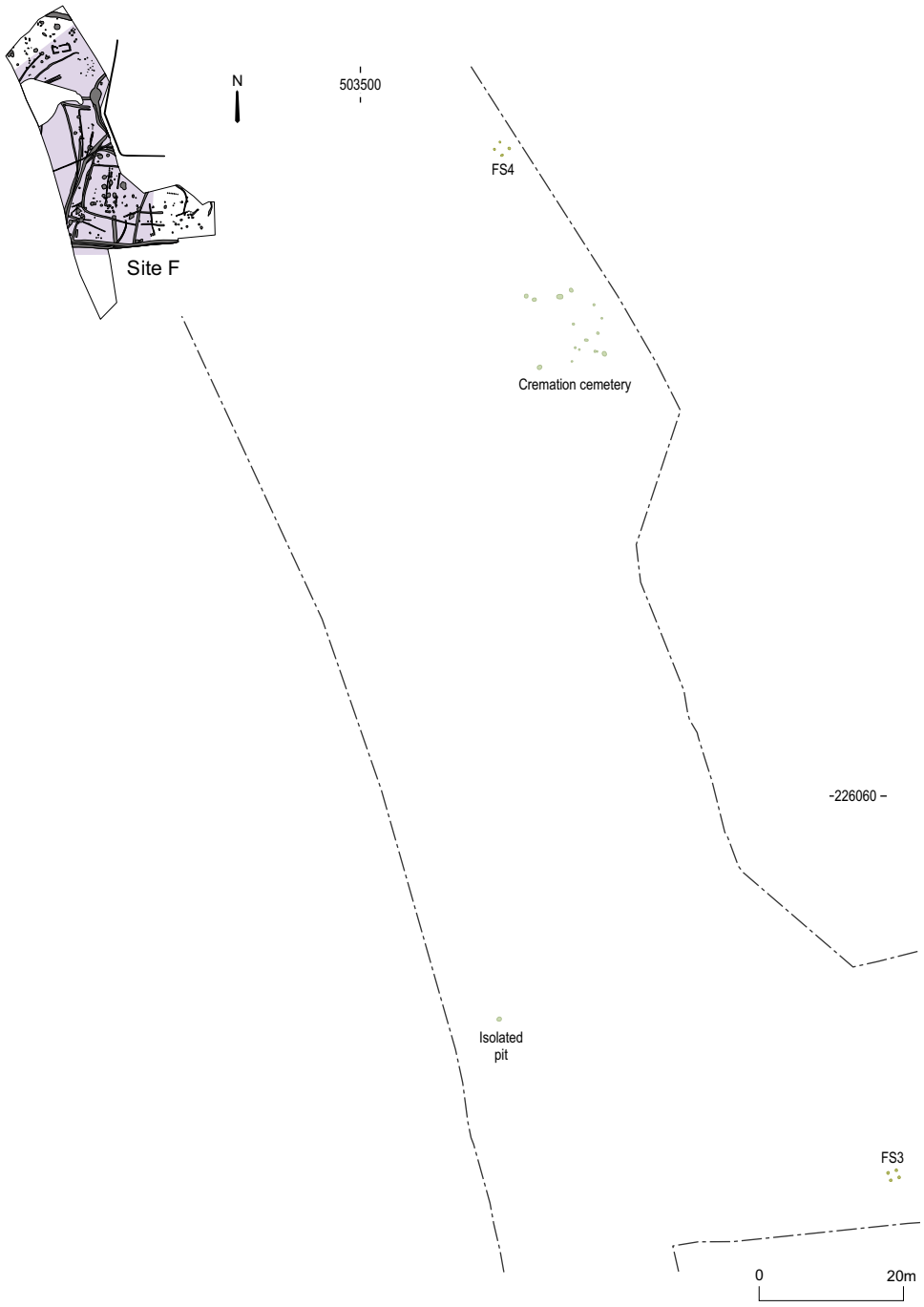


Fig 6.20 Four-post structures, Site F, undated, late Iron Age/Roman

the cemetery. Four-post structures are generally more common to Iron Age sites and are interpreted (amongst other things) as structures for laying out the dead.

The postholes of FS3 to the south were arranged in a roughly 1.0m by 1.0m square formation, each of similar depth and profile. The northern group of FS4 was less regularly set out at 1.1-1.5m apart. The individual postholes were 0.20-0.35m in diameter and 110-290mm deep. They mostly had U-shaped profiles including a concave base and all were filled with a sterile deposit of dark grey-brown silty clay.

Boundary ditches at Site P

The junction of four undated boundary ditches was investigated at Site P (Fig 6.21), together with other potential boundary features in the vicinity. Very few finds were recovered from the site, comprising nine pottery sherds (25g) of post-Conquest date, *c.*AD43-120, from two pits and a ditch nearby, but not from the boundary junction itself.

Features recorded at Site P were likely to have been part of the field system of an adjacent settlement. The

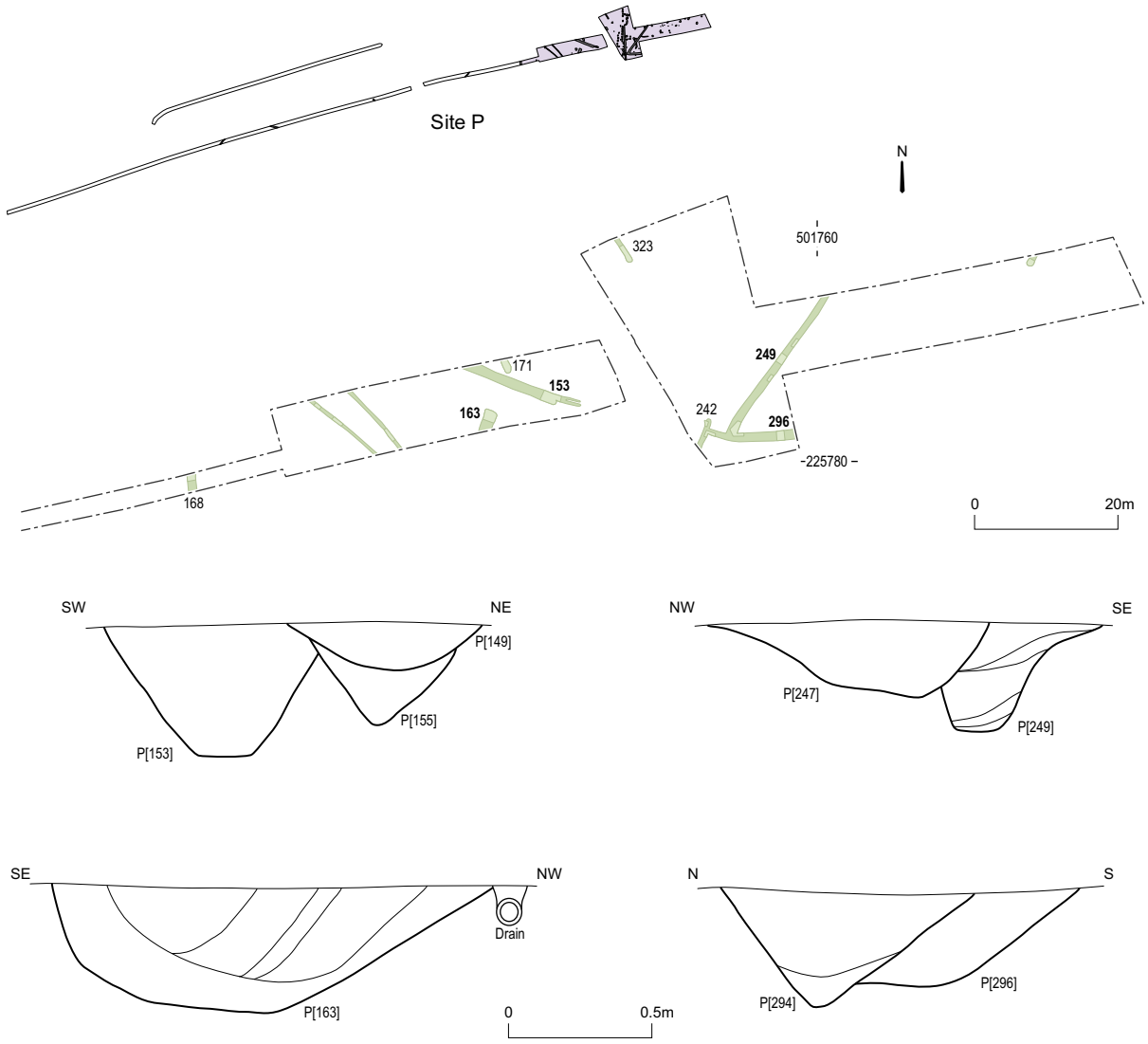


Fig 6.21 Boundary ditches, Site P, undated, possibly late Iron Age/Roman

land is flat, lying more than 100m to the north of the Ouzel Brook. The geology is entirely grey-white chalky clay. More than ten largely undated features were found over a distance of *c.*95m in a transect 8m wide, during targeted watching brief (Fig 6.21).

Part of the field system can be seen by four undated boundary ditches which converged at a junction from the north-west, north-east, south-west and east (Fig 6.21). The north-west projection from this junction included a break 17.3m wide that may have been an entrance or crossing. The north-east and south-west ditches extended away from the junction, slightly offset from each other.

A further six unconnected and largely undated ditches and gullies were examined within the vicinity that suggests a wider distribution of boundaries to the north and south of the excavated area.

The ditches were generally fairly narrow and had clearly been truncated in the past. Paler grey-orange silty clay in-wash at the base of the ditches had later been followed by accumulations of dark brown-grey silty clay loam, which was fairly consistent throughout the site. Only one of the ditches, P[163], provided any evidence for deliberate infill. Modern roots and other taphonomic disturbances were clearly evident, posing a serious problem for interpretation and excavation on site. Additionally, during the winter months it was observed that Site P quickly reached saturation from the height of the water table, a situation that seems unlikely to have changed since antiquity. At the junction of the boundary ditches there was a substantial masking spread of soil that had built up from ditch overflow, as the capacity for the ditches to drain water away became less effective.

FEATURES EITHER SIDE OF A FIELD ENTRANCE

At the western wide of the boundary junction were three intercutting ditches following the same north-west by south-east alignment (Fig 6.21). The earliest of these was ditch P[153], which was the most substantial and had a terminal with a squared end, the sides of which sloped steeply into a narrow flat base. The recut, P[155], mirrored this and was slightly offset to the north-east, narrower, shallower and V-shaped; its length, however, extended a further 3.5m than the original to a terminal end. The latest recut, P[149], was shallower still and having entirely lost its sharp sloping sides, was little more than a gully with a rounded profile. It too extended the additional 3.5m, narrowing the entrance.

No features were found within the entrance and the larger portion was not exposed by excavation because it had been heavily disturbed by a modern hedgerow and its associated ditch. The opposite side of the entrance was investigated in the adjacent area, where a shallow rounded ditch, P[242], extended from the south and met with a more substantial ditch, P[296], from the east before terminating.

Ditch P[296] was of similar dimensions to its north-west counterpart and seems to have been the principal axial boundary (Fig 6.21). The initial ditch cut had steep sloping sides with a flat base. This was recut by a slightly deeper V-shaped ditch, offset slightly to the north.

Cutting the western terminal of P[296] was P[242], the latest addition to this group. This ditch was proportional in size and shape to the other V-shaped ditches and it extended to the south instead of following the principal boundary.

Extending to the north-east was a further boundary, P[249], that shared the trend for a broad initial V-shaped cut (Fig 6.21). The recut had a more widely splayed profile with a flattish base.

OTHER UNDATED DITCHES NEARBY

Only one feature produced datable finds. Ditch P[168] lay at the westernmost extent of this feature concentration. This boundary aligned north-south was amongst the widest in the area with steep sloping sides and a flat base (Fig 6.21). As with other ditches the basal fill was pale mottled light to mid brown clay, but the darker brown clay towards the surface was less loamy than elsewhere and the whole sequence appeared to be one of gradual in-wash. Six sherds (13g) of pottery came from its uppermost fill and is of oxidised fabric (O04 and reduced fabric R085), likely to be of late 1st to mid 2nd-century AD date.

Located 22-26m to the east of this ditch was a pair of gullies, *c.*4m apart, both aligned north-west to south-east, and of similar proportions. They were narrow, 0.3m wide, and shallow, less than 0.14m deep, with rounded profiles. The fills were of grey-brown clay with chalky flecks.

Either side of ditch P[153] were the terminals for other ditches extending away from the boundary. Ditch P[163] extended to the south-west, its broad asymmetrical rounded profile had a flattish base (Fig 6.21) and was square-ended in plan. Initial in-wash deposits had accumulated as pale grey silty clay, but it would seem that later accumulations occurred as a series of darker tip lines from the west. On the opposite side of ditch P[153] another terminal, P[171], indicated a boundary extending to the north. This narrow, 0.6m wide, feature was almost U-shaped, and only 0.3m deep. The fill was dark brown silty clay loam.

A further gully terminal extended north at the edge of excavation. Gully P[323] was narrow, 0.48m wide, and shallow, 0.12m deep, filled by dark black-brown silty clay.

BOUNDARY DITCHES AND PITS AT SITE J

A long sinuous landscape boundary had been identified by geophysical survey over a distance of 0.5km from an enclosure near Chalton Cross Farm at NGR TL 035167 257431 (Simmonds and Fisher 2008, fig 13; Fig 6.22). It was investigated at several points at evaluation and watching brief stages where it lay within the bounds of the road scheme.

Site J was in the area of the boundary and comprised three small excavations which targeted areas where the evaluation had identified archaeological features (Brown 2015b). Two of the excavation areas were to the north and south of the boundary ditch and found no archaeological remains. The southernmost of these, less than 30m to the north of the Ouzel Brook, exposed a spread of firm dark blue-black silty clay that was 100-140mm thick, overlying the natural (Fig 6.22). Bulk soil samples from this deposit produced almost nothing at all (Fryer 2016, table 55). Whilst it is probable that this soil horizon represents an area of former marshland, there was insufficient charred material to obtain a radiocarbon date to corroborate its period of origin. To the north and east of this excavation area, the ground began to arise gently upslope.

The third excavation area was sub-rectangular and measured *c.*55m by 20m (Fig 6.22). It was positioned over the boundary ditch, where the level of preservation was known to be good (Fig 6.23; Brown 2015b, Trench 63). The work here at Site J allowed detailed investigation of the boundary ditch and identified two smaller ditches,

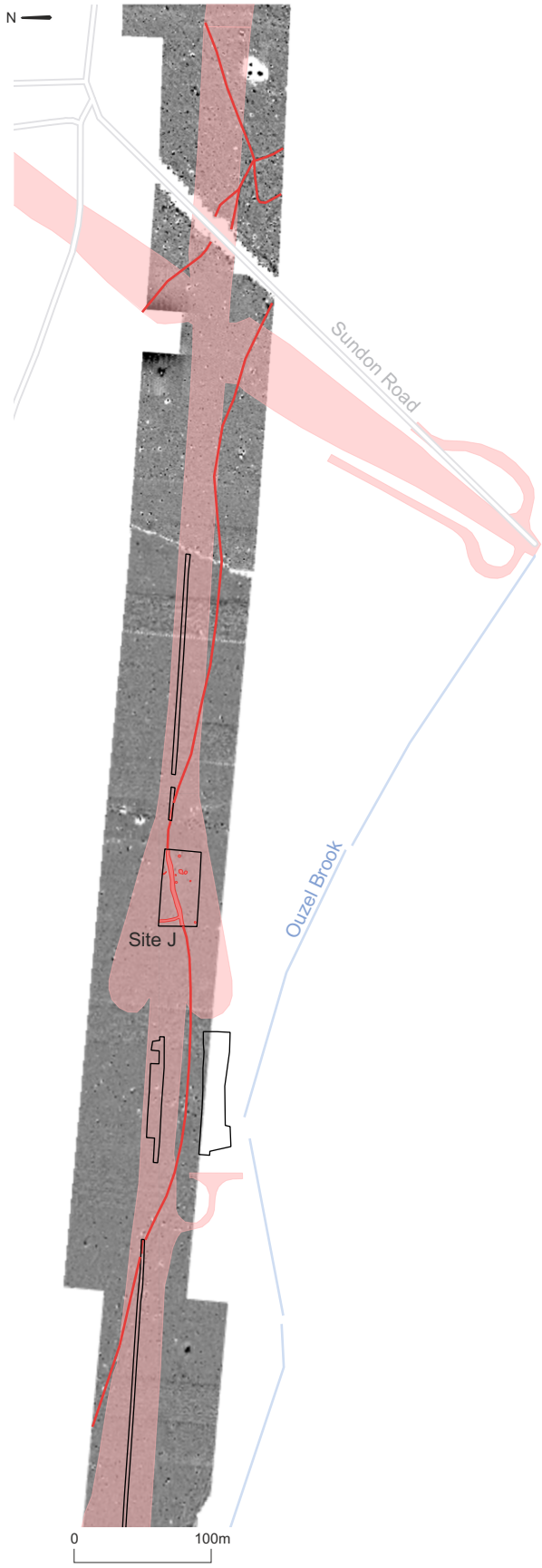


Fig 6.22 A long sinuous boundary of the late Iron Age, Site J, 1st century BC

one of which joined onto it from the north, together with a small group of pits on its south side (Fig 6.23). Pottery from the main boundary was of the early 1st century AD and the boundary is likely to belong to a principal late pre-Roman Iron Age land division. The site as a whole produced very few finds and was probably peripheral to a nearby settlement; it lay *c*.75m to the north of the Ouzel Brook, at the head of the valley slightly to the west of where the spring line rises. The geology is grey-white chalky clay.

The boundary ditch drained downslope towards the stream following a north-east to south-west course. The ditch, J[1006], had a steep V-shaped profile with a slightly rounded base and was filled with a sequence firm grey-brown silty clay that was fairly light at the base and gradually grew darker towards the surface (Fig 6.24). The ditch produced *c*.60 sherds (1.23kg) of late Iron Age pottery from a characteristically pre-Roman storage jar. Charcoal from sample flots was relatively sparse and there were no seed grains (Fryer 2016, table 55). Pottery from evaluation trenches which had previously examined this ditch was of similar date (Burrow 2008b). Snail species were noted as a mixture of shade loving and open country species, typical along boundaries with vegetative colonisation. The sides of the ditch exhibited ancient tree root disturbances and possible animal burrows.

Towards the south-west the ditch had been recut (Fig 6.24, J[1042], J[1045]). This recut had steeply sloping sides and a flat base, almost half the depth of the original. The lack of finds from anywhere else along the ditch indicated that the pottery from the north-east end were the remains of a single discarded vessel. The nature of the fill was also consistent, suggestive of gradual accumulations of in-wash gathering more loamy material over time as the boundary was increasingly colonised. The recut did not differ greatly in this regard, although there was a greater incidence of chalky flecks and nodules.

Further to the west within the general watching brief transect, the continuation of the geophysical anomaly corresponded with another V-shaped ditch. In this instance, however, the fill differed greatly with light grey-brown silty clay in-wash at the base, a possible orange-brown clay bank deposit on its west side, truncated by the plough, and darker black-grey silty clay loam abandonment deposits filling the top of the ditch.

Two smaller ditches that were not seen in the geophysical survey data joined this boundary from the north side, and on its south side there was a small group of pits.

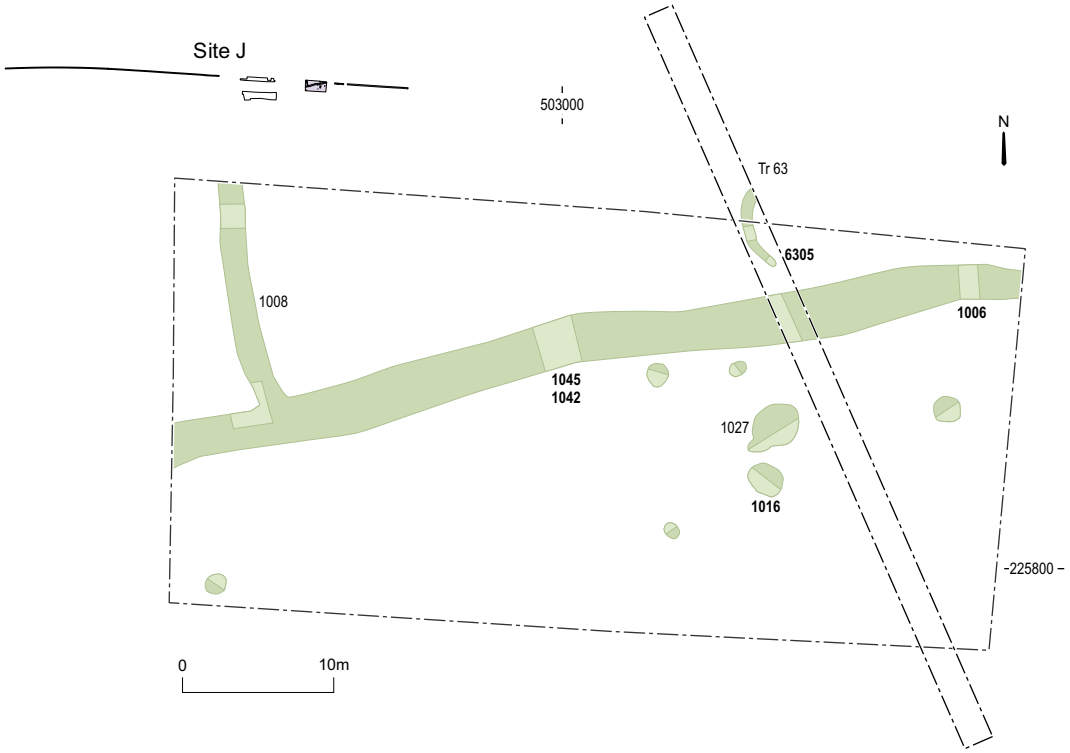


Fig 6.23 Boundary ditches and pits, Site J

During evaluation a curvilinear ditch J[6305] and recut J[6311] to the north of the boundary ditch were identified in evaluation Trench 63. These undated ditches were recorded over a distance of *c*.5m within the trench, but continuing to the east of the evaluation for an unknown distance. On the southern side these ditches stopped *c*.2m to the north of the long sinuous boundary ditch J[1006]. The original ditch was 1.30m wide by 0.35m deep with 45-55º straight sloping sides, and a flat base (Fig 6.24). This was filled with firm light grey-brown silty clay. The recut ditch was 0.90m wide by 0.30m deep and rounded base, which filled with much darker grey-brown silty clay.

Around 30m to the west of the curvilinear ditches lay another ditch, J[1008], aligned north to south from the north side of boundary ditch J[1006], and continued beyond the north of the excavation area. Its extent is unknown as it was not seen in the geophysical survey data. It was badly truncated so that only the base survived.

On the south side of the boundary ditch there was a small group of eight sub-circular pits most of which lay clustered together with a single pit offset to the west (Fig 6.23). To the south discrete pit, J[1016], was 2.0m wide by 0.75m deep (Fig 6.24). The pit had steep sides and a flat base with a clear sequence of fill that comprised light orangey-grey clayey silt at the base, followed by firm orangey-brown sandy clay, and then with dark grey-brown sandy clay on top. A small quantity of pottery of Aylesford–Swarling type fabric was found, similar to the pottery found in the nearby ditch, although there were no cross-fits between the two. Cattle bone was recovered from both features.

Two other fairly substantial intercutting pits were adjacent to J[1016] on its north side, but contained no finds. These had similarly sloping sides, and the dimensions of pit J[1027] were comparable with pit J[1016], although the bases were inconsistent. The fill appeared to be two dumps of material comprising mid brown-grey clay followed by dark brown-black silty clay. Smaller pits within the vicinity produced no finds and were filled with dark grey-brown sandy clay, similar to the upper fill of the largest pits.

SPECIALIST STUDIES

QUERNS

BY ANDY CHAPMAN

While the date of introduction for the rotary quern in southern England is a subject to uncertainty and discussion, it is certain that they were scarce at the beginning of the middle Iron Age and widespread by the late Iron Age (Peacock 2013, 54-58). In the description of the middle Iron Age pottery chronology, it has been suggested that an increase in the size of storage jars in the earlier-middle Iron Age, centred on 250-200 BC, may have been a response to the rapidly growing use of rotary querns, with the increase in vessel size reflecting the increased capacity for flour production and the consequent need to store greater quantities of grain within the roundhouse.

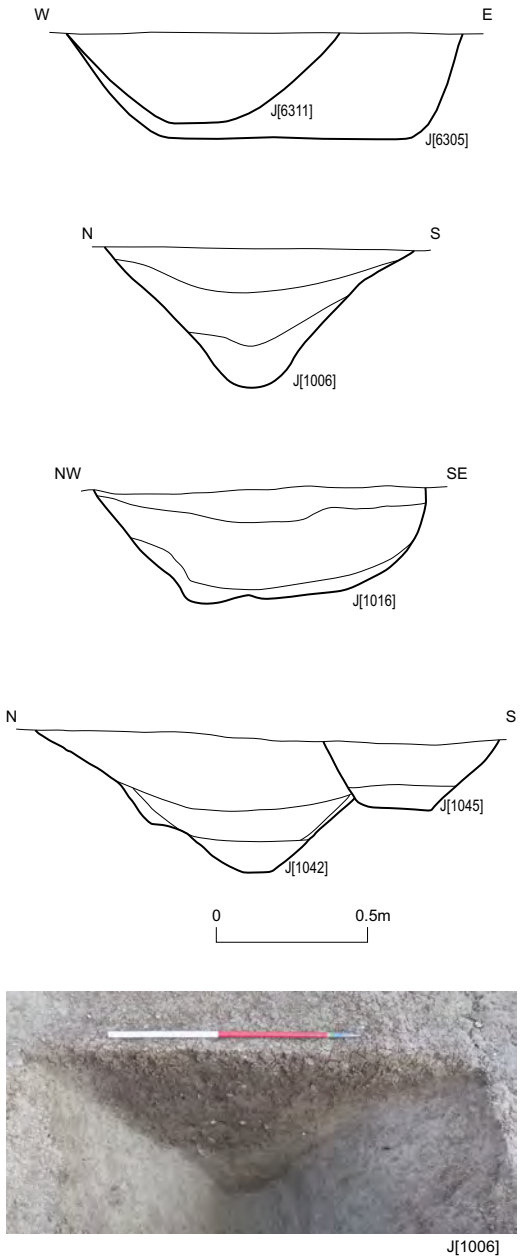


Fig 6.24 A late Iron Age boundary and pits, north of Ouzel Brook

It is notable, however, that not a single example of a saddle or rotary quern was recovered from any of the Iron Age settlements, while their presence at the Roman settlement, even if in relatively small numbers, indicates that the domestic milling of grain did occur during the Roman period. It seems unlikely that the domestic milling of grain was not practiced on the middle to late Iron Age settlements and it must be put down to chance that no examples or fragments were recovered during excavation.

The rotary querns that were recovered are from the Roman sites at Site H and Site Q. The absence of any millstones indicates that all milling on these sites was by hand and there were no animal-powered mills, which are often present on higher status Roman settlements, although given the early abandonment of both Roman sites it may be that they pre-date the appearance of animal-powered mills.

The three finds of rotary quern upper stones from Site H come from features in the vicinity of an enclosure entrance, established in the post-Conquest reorganisation of the site and abandoned by AD120 (Fig 6.14). Their presence in this area would suggest that they had come from the houses in which they had been used, to be dumped in a place of significance, in this instance the enclosure entrance. They had all been broken before deposition, and the puddingstone quern split in two repeats a practice seen frequently in the later Iron Age, with upper stones split vertically in half to ritually "kill" them by rendering them unusable, prior to deposition.

The finds from Site Q are from features associated with an enclosure in use from the early-middle part of the 1st century AD and abandoned before AD70 (Fig 6.25). The rotary quern from ditch Q[1014] was residual in a 12th-century context and is likely to have been disturbed from earlier pits through which the ditch was cut.

The total assemblage from both sites is relatively small, comprising two stones in sandstone, probably Millstone Grit; three in Hertfordshire puddingstone and small fragments from a stone in lava. As rotary querns would amount to no more than one per household at any time, and a new set of stones would provide many years, perhaps decades, of use, they do not appear in the archaeological record in large numbers, especially given the low percentage levels of feature sampling that are currently practiced. The stones recovered are fairly typical of what might be expected from settlements of such size and duration.

The sandstone querns are the typical flat-topped querns of the early Roman period, and the use of Millstone Grit had begun with the mass production of rotary querns in the later-middle to late Iron Age. It continued to be a favoured stone for querns and millstones through to the 19th century, although then largely used to produce animal feed, due to the amount of grit that would inevitably become mixed with the flour, with this producing the heavily worn teeth of all pre-modern humans.

Hertfordshire puddingstone, with its characteristic large inclusions of rounded pebbles of flint, became a popular stone in the early Roman period, although the characteristic low-domed upper stones may suggest an origin for these in the late pre-Roman Iron Age, the early decades of the 1st century BC, perhaps by incoming settlers who were used to using puddingstone querns from deposits in France that are geologically identical (Peacock 2013, 158-161).

Similarly, the lava stones originate in the Eifel region on the German/Belgium borders (Peacock 2013, 151-154). These were introduced in the early Roman period and remained a favoured stone for querns and millstones throughout the Roman and Anglo-Saxon periods, being imported in significant quantities up to the Norman Conquest, after which usage declines as other stone types become more popular.

These querns are from archaeological sites at Site H and Site Q. The three finds from Site H come from features in the vicinity of an enclosure entrance, established in the post-Conquest reorganisation of the site and abandoned by AD120 (Fig 6.9). The finds from Site Q are from features associated with an enclosure in use from the early-middle part of the 1st century AD and abandoned before AD70 (Fig 6.18). The rotary quern from ditch Q[1014] was residual in a 12th-century context and is likely to have originated from one of the Roman pits which the medieval ditch had cut.

SITE H

From ditch H[244] and pit H[335] there are small rounded lumps of lava, to a total weight of 165g, which have come from lava querns.

There is a fragment from the circumference (15%) of an upper stone of a Roman flat rotary quern, 370mm diameter with a central hopper 100mm in diameter from ditch H[244] (Fig 6.25, S1). The grinding surface is deeply concave, with the stone 36mm thick at the centre and 70mm thick at the circumference. The upper surface has a raised collar around the circumference, 40mm wide and 8mm high. The stone is a coarse-grained sandstone, possible Millstone Grit, but with a particularly high proportion of pink feldspar inclusions. Small rounded lumps of lava quern come from the same ditch.

Half of a rotary quern upper stone in Hertfordshire puddingstone was recovered from pit H[335]. The stone is 300mm in diameter by 90mm high, with a hopper 40-65mm in diameter (Fig 6.25, S2). The grinding surface is concave and the upper surface is domed above a broader skirt. The puddingstone was also accompanied by small rounded lumps of lava quern.

There is a fragment, *c.*10%, of an upper stone in coarse-grained sandstone, probably Millstone Grit, with a central aperture *c.*80mm in diameter from pit H[626]. The stone is up to 55mm thick, with a concave grinding surface, tapering to 25mm thick at 190mm from the centre, probably only a little short of the circumference. The large central aperture indicates that this was the upper stone and it is typical of Roman rotary querns.

SITE Q

Around *c.*80% of a domed upper stone of a rotary quern in Hertfordshire puddingstone came from medieval ditch Q[1014] (Fig 6.25, S3). The stone stands up to 90mm high, with a hopper that is 60mm in diameter, tapering steadily to 20m diameter at the slightly concave grinding surface. The stone was perhaps originally 300mm in diameter, but the grinding surface has been systematically removed around the entire circumference, leaving just a small central area intact. Some damage to the upper domed surface of the stone is also present. This is likely to have been a deliberate act, 'killing' the stone and rendering it useless, prior to deposition.

There is a large part of a domed upper stone of a rotary quern in Hertfordshire puddingstone from ditch Q[1213]. Part of a curved surface survives, but all other diagnostic features have been removed. A fragment

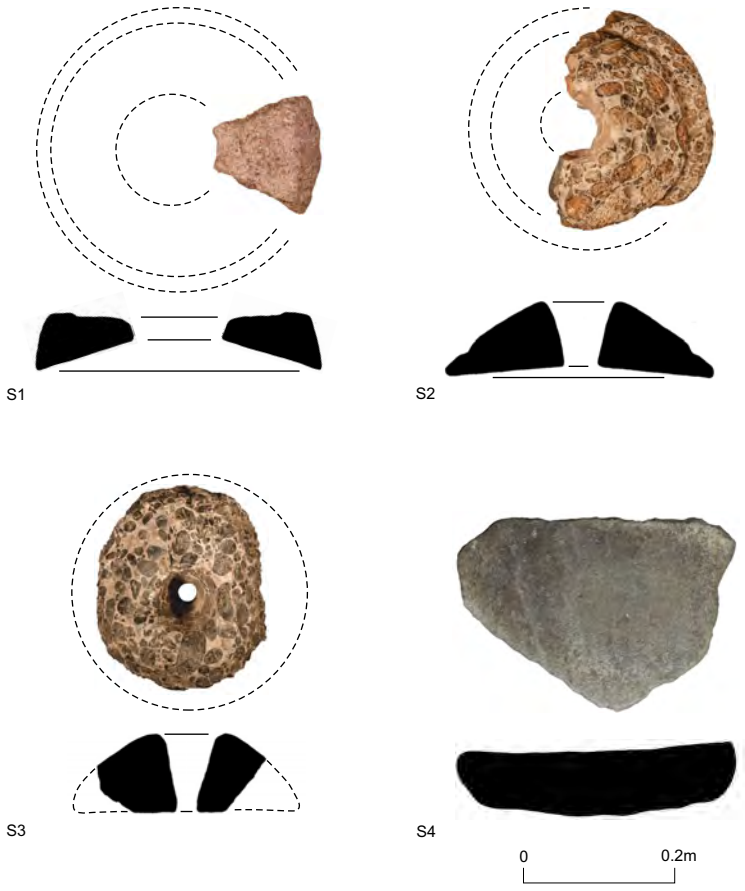


Fig 6.25 Querns from late Iron Age/Roman sites

from a block of limestone, now 180mm by 100mm, and 100mm thick was found in ditch Q[486]. The upper surface has been worn smooth and is slightly concave, indicating that the stone may have been used as a grinding stone for something other than cereals.

There is a complete water worn cobble, almost triangular, 350mm by 275mm, and up to 80mm thick from ditch Q[906] (Fig 6.25, S4). The upper surface is shallowly concave and well worn. This may be a saddle quern, but such concave stones are a common feature on Roman settlements where they appear to have been used as general grinding stones, and not for milling grain.

ROMAN FLOOR TILE/BRICK

BY PAT CHAPMAN

Roman floor tile/brick was only found at Site H (not including residual fragments from Site Q) and comprise 91 fragments (3,880g). Most were not diagnostic and could have been either floor tiles or bricks (Table 6.1). The fabric and the quality is variable and is found in both periods at Site H (Figs 6.5 and 6.9). Some tiles are made of hard fine orange sandy clay with tiny flint and gravel inclusions, sometimes with a pale brown smooth surface. The other main fabric is fine silty orange-brown clay, often more roughly-made with some coarse gravel and flint. One body sherd, from ditch H[555], is 20mm thick and it is unusual in being made with fine silty grey clay.

The only measurable dimension is thickness, which is 20-40mm, indicating either a floor tile or brick. The range of tile is best seen in the material from two features. From ditch H[244], close to the entrance of the main post-Conquest enclosure, there is a large sherd, 40mm thick, which is roughly made from fine hard orange-brown clay with some flint and calcareous inclusions. There are stem impressions in the clay, with a pale brown top surface that is smooth but uneven. A much smaller sherd survives in the same fabric but is better made. There is a sherd from a well-made tile with fine sandy dark purple to black clay with tiny flint inclusions. The fourth tile is in fragments, made from orange-brown to dark red clay.

Table 6.1: Quantification of floor tile/brick, Site H

Context	Number	Weight (g)	Comment
H[134] ditch	12	130	body fragments of probable floor tile/brick
H[145] ditch	1	15	body, fine sand silt
H[152] ditch	9	185	floor, 4 tiles; 20mm thick sand, 2x25mm thick, hard fine sand, 30mm thick, rougher
H[164] ditch	2	240	floor, 35mm and 40mm thick, hard sand
H[164] ditch	1	40	body, fine sand
H[167] pit	1	95	floor fragment
H[219] ditch	1	20	body fragment
H[236] well	2	30	flue tile fragment, broad comb; body fragment
H[290] well	2	20	body fragments
H[244] ditch	26	1330	floor, 4 separate tiles, 2 separate fragments
H[244] ditch	1	95	floor, 30 thick, hard
H[244] ditch	3	210	floor, roughly-made fine sandy silt, 40+mm thick frag bright fine sand
H[256] layer	2	10	body fragments
H[274] ditch	4	70	floor, 3 fragments, roughly made
H[276] ditch	1	300	floor, fine sand, 18mm thick
H[295] pit	8	155	floor, 40mm thick fine silty with flint
H[329] ditch	1	50	floor, fine sand, light brown surface
H[329] ditch	1	355	floor, disintegrating, 40mm thick
H[340] pit	3	280	floor, fine sand, 25mm thick
H[500] ditch	3	25	body, fine sand
H[555] layer	6	205	1 flat body silty grey 20mm thick, 5 fragments
H[762] ditch	1	20	body, fine sand
Totals	**91**	**3880**	-

Of the four tiles from ditch H[152] there are three that are 23-25mm thick, made with hard fine sandy orange-brown clay. The other tile is more roughly-made with red-brown silty clay and some flint and calcareous material.

One small flue tile sherd comes from well H[236] that is highly abraded. Broad comb decoration can still be seen on its surface. There are also some fragments of buff coloured mortar, weighing 25g, from pit H[263].

The lack of any roof tile remains in an assemblage of 91 sherds is a clear indication that the building from which this material was derived was either thatched or roofed with shingles. The quantity of material also suggests that the building was very close, perhaps in this enclosure, especially with wells close by, just built from the ground upwards thus leaving no obvious trace of foundations.

All of the Roman ceramic building materials from Site Q were residual. A large broken sherd, 45mm thick, in ditch Q[1163] is made with hard fine sandy clay fired to orange with a brown surface and grey core, and the occasional large inclusion of sub-rounded gravel up to 20mm long. This could be the remnant of a Roman rectangular brick or tile known as a *lydion.*

There are two other sherds from ditch Q[531], made from fine slightly soft silty orange-brown clay, a typical Roman tile fabric. One is 35mm thick, the other has a possible remnant finger swirl, associated with Roman *tegula* roof tiles.

Fired clay

by Pat Chapman

There are 164 fragments (1,100g) of fired clay from Site H (Table 6.2). The majority of the fragments are made with hard sandy clay, mainly orange-brown or red in colour, similar to the tile and are both angular and irregular in shape. It is likely that some of these fragments could be from shattered and abraded tile. Amongst them are stem impressions on the flat surfaces and occasionally on the irregular 'interior'. A large chalky lump from pit H[302] has a form similar to a tile, but is probably daub. A few other fragments are made with chalky clay. Flat pieces from pit H[270] have stem impressions. These fragments will have a mixed origin, both structural and general debris.

There are 212 fragments (1,390g) of fired clay from seven contexts at Site Q (Table 6.3). Several tiny fragments of fine sandy orange clay are probably the shattered remnants of a tile. The rest of the material comprises structural remnants, probably of cob walling or daub, made with fine silty chalky clay resulting in either being whitish or pale orange in colour. There are no wattle impressions.

Two small pieces of fired clay (15g) come from Site P. One piece is flattish, made with red-brown sandy clay, whilst the other is irregular in shape and made with orange-brown silty sandy clay with frequent tiny gravel.

Late Iron Age pottery from Site Q

by Andy Chapman and Phil Mills

There are 624 sherds (7,050g) from Site Q that are ascribed to the Iron Age; this material has been extracted from a larger assemblage of Roman pottery derived from the continuation of settlement within the same area. There are a number of primary groups within ditch fills, with an average sherd weight of 11.3g. The smaller and thin-walled vessels, typically in the fine sandy fabrics had suffered most attrition, although the number of fresh breaks indicates that a proportion of this was caused during excavation, while other fabric types have average sherd weights of 16.1–17.4g.

The assemblage includes a couple of possible intrusive Roman sherds, but most of the total weight comprises a single grogged ware storage jar <P217> of the early 1st century AD from pit Q[1005], and some further sherds from nearby features, with this fabric not appearing elsewhere in the assemblage.

Site chronology

Everything within this assemblage is consistent with settlement beginning in the 1st century BC, continuing into the early 1st century AD. Transitional wares and early Roman pottery show further occupation without a break to include the introduction of wheel-finished vessels into the post-Conquest period.

The assemblage comprises vessels largely in fine or coarse sandy fabrics with dark surface colours, typically grey to grey-brown. Out of a total of 24 contexts from 23 features, there are small primary groups in excess of 1.0kg containing fresh and often multiple sherds from a limited number of vessels in ditches Q[350], Q[924] and Q[998]. In addition, a group of 0.55kg from gully Q[274] comprises sherds from a single vessel, while 0.35kg of pottery from ditch Q[394] is largely from two vessels. All of these groups are characterised by hand-built vessels in darker colours, grey to grey-brown with the exception of a vessel from a large group in ditch Q[924], which is exceptionally thick and in a particularly coarse sandy fabric, with bright orange mottling.

In complete contrast to the rest of the assemblage there is a large thick-walled storage jar <P217> from pit Q[1005], with orange, oxidised, surfaces and in a fabric containing dense pellets of grog. This is the only vessel of its fabric and type within the assemblage apart from a few further sherds of orange grog fabric from ditches

Table 6.2: Quantification of fired clay, Site H

Context	Number	Weight (g)	Comment
H[100] pit	4	55	3 irregular sandy; 1 silty black
H[113] ditch	11	25	tiny fragments and crumbs, sandy orange
H[160] ditch	1	15	irregular sandy
H[215] ditch	2	5	hard flat sandy silt
H[219] ditch	3	5	hard sandy irregular
H[221] pit	1	20	hard flat sandy
H[236] well	5	60	hard flat sandy fragments
H[239] ditch	33	210	hard cindery with level yellow surface
H[239] ditch	2	30	hard chalky clay
H[240] pit	40	105	mixed chalk and clay, hard but friable
H[251] ditch	5	20	hard flat sandy fragments
H[253] ditch	1	1	red fragments
H[255] ditch	1	20	hard sandy irregular
H[270] pit	13	115	fine silty, flattish 15-20mm thick
H[270] pit	2	20	irregular hard silty
H[274] ditch	9	40	hard sandy fragments
H[274] ditch	2	20	hard sandy irregular
H[281] well	1	10	hard chalky clay
H[285] pit	3	25	hard sandy irregular
H[302] pit	1	75	chalky fragment, tile-like but probably not
H[340] pit	4	50	angular hard silty pink-brown
H[355] pit	9	55	hard sandy irregular
H[468] pit	1	10	small pale silty
H[622] pit	4	10	3 hard sandy irregular, 1 chalky
H[749] ditch	5	70	3 joining, fine silty, flattish + fragments
H[3005] burial 5	1	1	small red silty
Totals	**164**	**1072**	-

Table 6.3: Quantification of fired clay, Site Q

Context	Number	Weight (g)	Comment
Q[28] pit	55	120	tile fragments- 44 with surface, 11 irregular
Q[105] ditch	3	10	sandy orange-brown
Q[294] ditch	22	275	orange and black, top flat surface
Q[350] ditch	29	485	3 large irregular, white buff chalky surface, black below
Q[394] ditch	98	395	silty orange, 2 irregular, reminder small and flat
Q[595] ditch	2	20	flat, fine sand orange and buff
Q[998] ditch	3	85	1 flat, 1 sub-rounded, 1 long fine silt white to black
Totals	**212**	**1390**	-

Table 6.4 Quantification of late Iron Age pottery, Site Q

Fabrics	Totals		Fabric A: Fine sandy		Fabric B: Coarse sandy		Fabric C: Shelly		Fabric D: LIA/RB		Fabric E: Flint	
Quantity	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
Totals	**624**	**7051**	**366**	**2823**	**151**	**2501**	**27**	**435**	**71**	**1233**	**9**	**59**
Percentages	-	-	58.7	40.0	24.2	35.5	4.3	6.2	11.4	17.5	1.4	0.8
Average sherd	-	11.3	-	7.7	-	16.6	-	16.1	-	17.4	-	6.6

Q[1002] and Q[1016]. This is the only material which can be ascribed solely to the early 1st century AD.

There is only one decorated vessel; a smoothed globular jar has finely-incised triangular motifs, and there are additionally some examples of grey burnished plain globular jars. Decorated rims are rare, and the heavy decoration on two rims is characteristic of late vessels, dating either to the later 1st century BC or even into the early 1st century AD.

DIAGNOSTIC FEATURE GROUPS

There is much of the body and rim of a small plain globular bowl with mottled grey to brown burnished surfaces and a rough bead rim (<P218>). It has a rim diameter of 180mm and maximum body diameter of 200mm. There is also a single rounded rim sherd <P219> from a similarly small vessel with grey burnished surfaces with a boldly incised line and faint impressions of two further encircling lines on a weak shoulder at the base of a short neck, 15mm high. Both of these vessels can be ascribed to the 1st century BC.

A small group including several rim sherds came from the same fill. Part of the rim and upper body of the single vessel in a shelly fabric has a pronounced shoulder, partly accentuated with knife trimming (Fig 6.26, <P220>). The rounded rim has closely spaced deep transverse cuts. There are also sherds in the coarse sandy fabric, grey throughout, from vessel <P221> with a shoulder, a short neck and a flattened rim.

There is 744g of pottery from a number of plain jars with grey to grey-brown surfaces. There is a single flat base 120mm in diameter which flares outwards in a similar fashion to other bases and suggests a date either of mid–late 1st century BC or even early 1st century AD. The single rim sherd has an upright rounded rim.

There are sherds weighing 950g from a single fragmented vessel <P222>, a plain jar in a coarse sandy fabric with grey-brown surfaces and a smoothed external surface. The flat base is 100mm in diameter. Only a single rim sherd survives, and this has a short upright and tapering neck, 25mm high, with a slightly expanded flat-topped rim. This vessel is not closely datable but the dark surface colour and the neckless rim suggest a broad late middle–late Iron Age date.

A primary deposit of 1.46kg of pottery is from a number of distinctive and diagnostic vessels. Thick-walled, 14mm thick, plain body sherds in a coarse sandy fabric with a grey core and a mottled grey, brown and orange external surface come from a globular vessel with a flat base, 80mm in diameter and flaring outwards above, and an upright rounded rim <P223>. There are also sherds from a single shelly ware vessel, with no shoulder and a simple upright rounded rim, and a plain burnished surface <P224>. There is also a globular burnished bowl, uniformly dark grey with a bead rim. The rim diameter is 160mm and the maximum body diameter is 200mm (Fig 6.26, <P225>). There is also a single sherd from the rim of a decorated globular bowl, with smoothed brown surfaces, with a pair of incised lines below the bead rim and a surviving fragment of a decorated sherd with a double-lined triangular motif (Fig 6.26, <P226>).

Ditch Q[998] produced 1.06kg of pottery. A proportion of the assemblage comprises thick-walled body sherds from a large jar or jars, in a coarse sandy fabric with brown surfaces, but much of the assemblage comprises small bowls with grey surfaces, often smoothed or burnished and fine everted or bead rims. One of these vessels has a small diameter base, *c*.80mm, which flares out rapidly to form a globular body (Fig 6.26, <P227>). There is also a similar base in a shelly fabric. In addition there are two sherds in probable early Roman fabrics, one with incised and probably rouletted decoration <P228>. There is also a rim with oblique deeply-incised fingernail or knife impressions. The small diameter bases and presence of two Roman sherds, if perhaps intrusive, suggest a date of mid–late 1st century BC or even early 1st century AD.

There is 1.1kg of pottery from <P229>, a single large storage jar in a fabric containing dense grog, with a brown core and orange, oxidised, surfaces and heavy rounded rim. This is a typical jar belonging to the early decades of the 1st century BC and is unlike the rest of the Iron Age assemblage, except for small quantities of pottery containing grog and with orange surfaces from two other contexts.

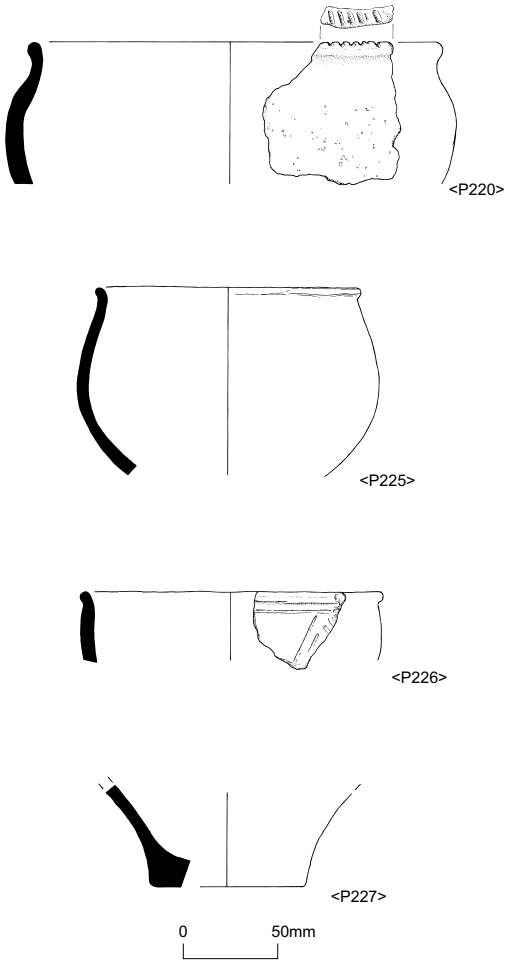


Fig 6.26 Late Iron Age pottery, Site Q

CATALOGUE OF ILLUSTRATED LATE IRON AGE POTTERY (FIG 6.26)

<P220> Shouldered jar with decorated rim, ditch Q[394]
<P225> Plain globular bowl with bead rim, ditch Q[924]
<P226> Vessel decorated with incised geometric motifs, ditch Q[924]
<P227> Small diameter base of a globular bowl, ditch Q[998]

TRANSITIONAL WARES AND EARLY ROMAN POTTERY
BY PHIL MILLS

This report covers pottery in use during the late Iron Age to Roman transition as well as that of the Roman period proper. This report focuses primarily upon the non-funerary assemblages from Site H and Site Q with mention of the few sherds recovered from boundary ditches at Site P and Site J. The funerary assemblages are presented in detail in Chapter 5 and are discussed as part of that section of the report. They are referenced here where relevant to the wider overview of fabric, supply and ceramic chronology.

In this region the transitional vessels were mainly of the grog tempered Aylesford–Swarling tradition, formerly known as 'Belgic' and can be understood as a Gallo-Roman influenced tradition which was taken up following the Julian invasions in the 1st century BC and the subsequent development of Romanising client kingdoms (Creighton 2000; Evans *et al.* 2017)

This report examines dating, taphonomy, supply, function and other aspects followed by the detailed presentation of the material from wells. The format of each section reviews the evidence from the different sites, distinguishing area and period groups where appropriate. Unless stated otherwise figures quoted in the text refer to the sherd count. Vessel function is based on form types from Evans (1993).

SITE H

There are 3,344 sherds (38.4kg) with a MNR of 239, a rim equivalent of 32.25 and a base equivalent of 29.73. The breakdown of the pottery by period is given in Table 6.5 showing total values and the percentage of the assemblage.

The date distribution is shown in Fig 6.27. There is a strong residual element from the late 1st century BC. The majority of deposition occurred in the 1st century

Table 6.5: Pottery by period, Site H

	Sherds	%	Weight (g)	%	MNR	%	RE	%	BE	%
Undated	61	1.8	667	1.8	4	1.7	102	3.2	19	0.6
Initial trackways and enclosures	779	23.3	9200	24.0	47	19.7	543	16.8	583	19.6
Funerary enclosure and features	211	6.3	737	1.9	6	2.5	82	2.5	307	10.3
Later reorganisation	1945	58.2	26769	69.7	179	74.8	2464	76.4	1760	59.3
Residual pottery	348	10.4	1009	2.6	3	1.3	34	1.1	304	10.2
Totals	**3344**	-	**38382**	-	**239**	-	**32.25**	-	**29.73**	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent

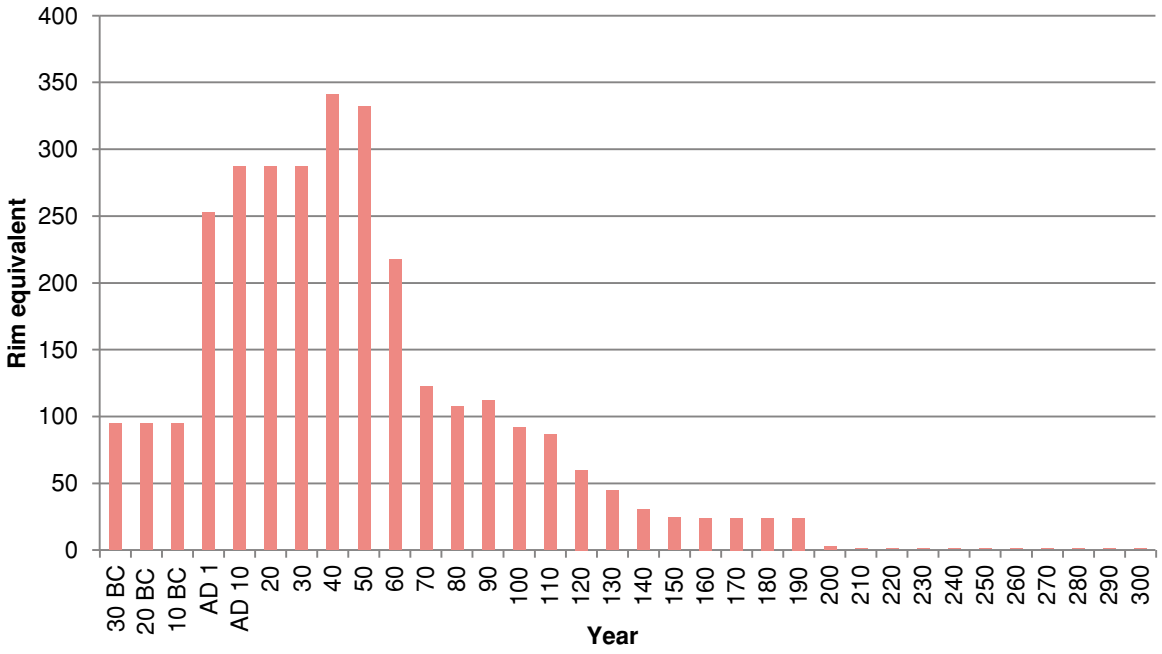


Fig 6.27 Overall date distribution for vessels with a restricted date range by RE, Site H. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

AD, peaking in the middle of that century with a dramatic decline towards the end. There was some later deposition, but nothing after the early 2nd century AD. The early periods are represented by a number of sherds from handmade Aylesford–Swarling pottery vessels, although the amount of wheelmade pottery in the same class is much stronger.

There are three main groups corresponding to the development of the site. The date distribution for the initial trackways and enclosures shows a broadly similar profile to the subsequent funerary enclosure and pyre site, indicating they may have run on into the later 1st century AD (Fig 6.28). There is much more pottery in this period. The majority are Aylesford–Swarling vessels,

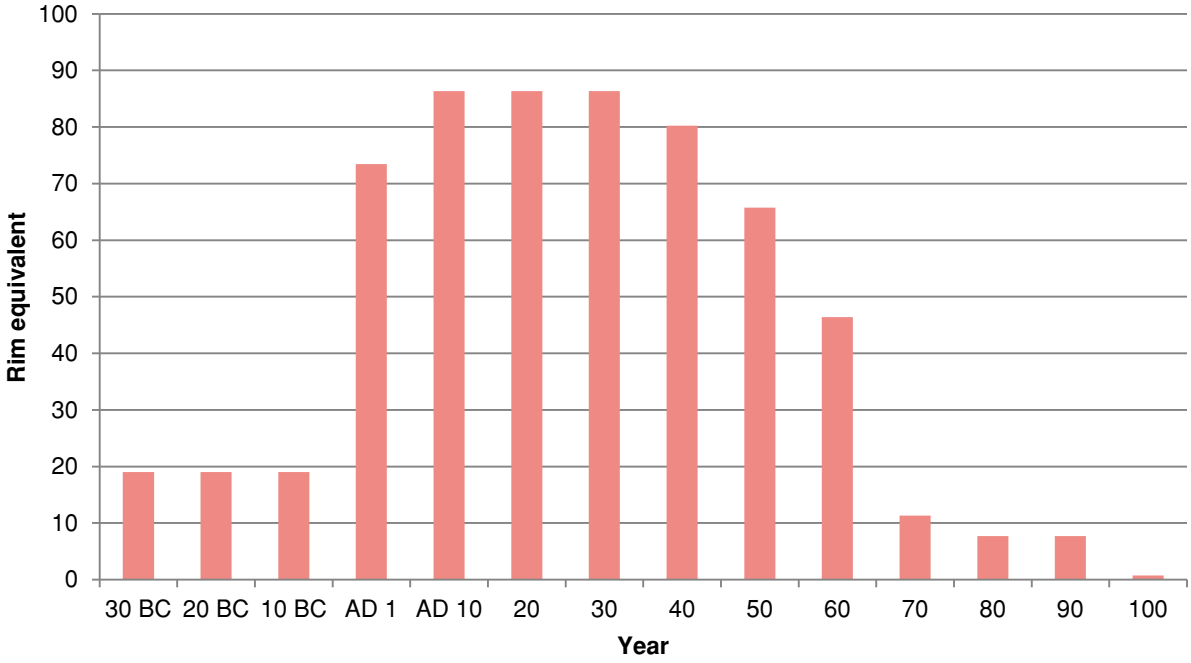


Fig 6.28 Date distribution for vessels from initial trackways and enclosures, Site H. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

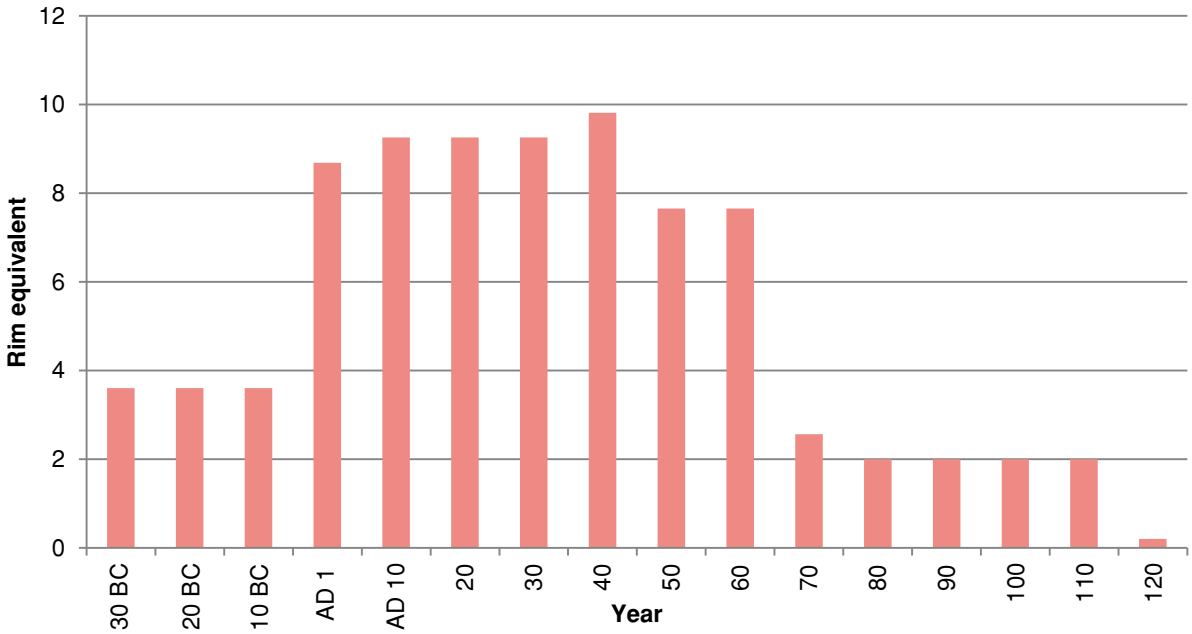


Fig 6.29 Date distribution for vessels from the funerary period of activity, Site H. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

but there is also a Harrold jar <P230> and another shell tempered jar <P231>, both of early to mid 1st-century date. Later material is suggested by oxidised jar <P232> and greyware jar <P233>, although again there is nothing to support any 2nd-century deposition.

The date distribution for the funerary enclosure and pyre site shows a peak period of deposition in the early 1st century AD (Fig 6.29). The earliest vessels are handmade jar <P234> and channel rim jar <P235>. Other forms most likely dating to the 1st century AD are wheelmade jars <P236>, <P237> and <P238>. The early 2nd-century AD tail for the date distribution is given by greyware beaker <P239> which has a suggested date range of AD40–120, but there is no evidence to suggest that it belonged to the later part of its range.

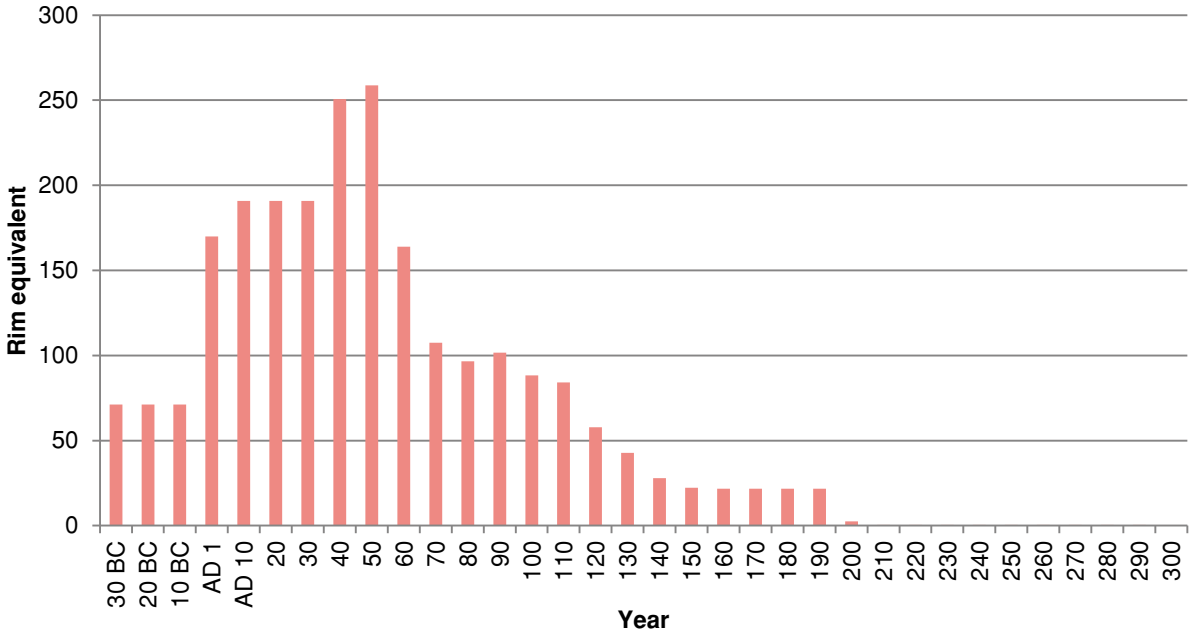


Fig 6.30 Date distribution for vessels from later trackways and enclosures, Site H. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

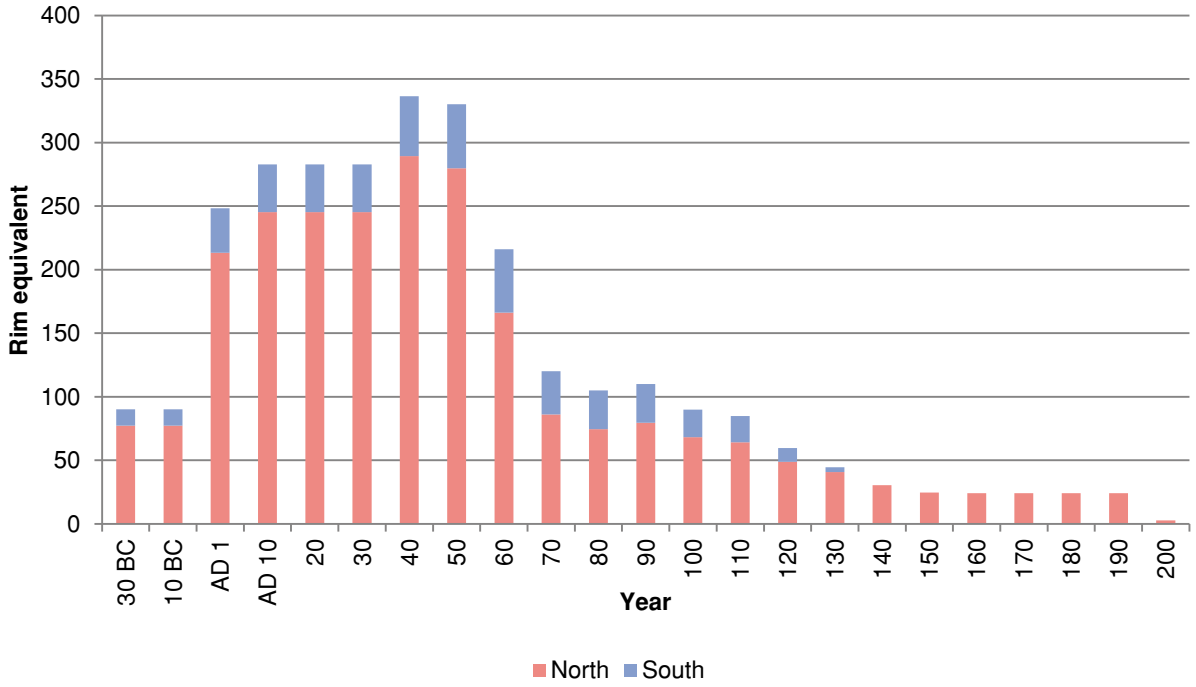


Fig 6.31 Date distribution for vessels comparing the north and south of Site H . Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

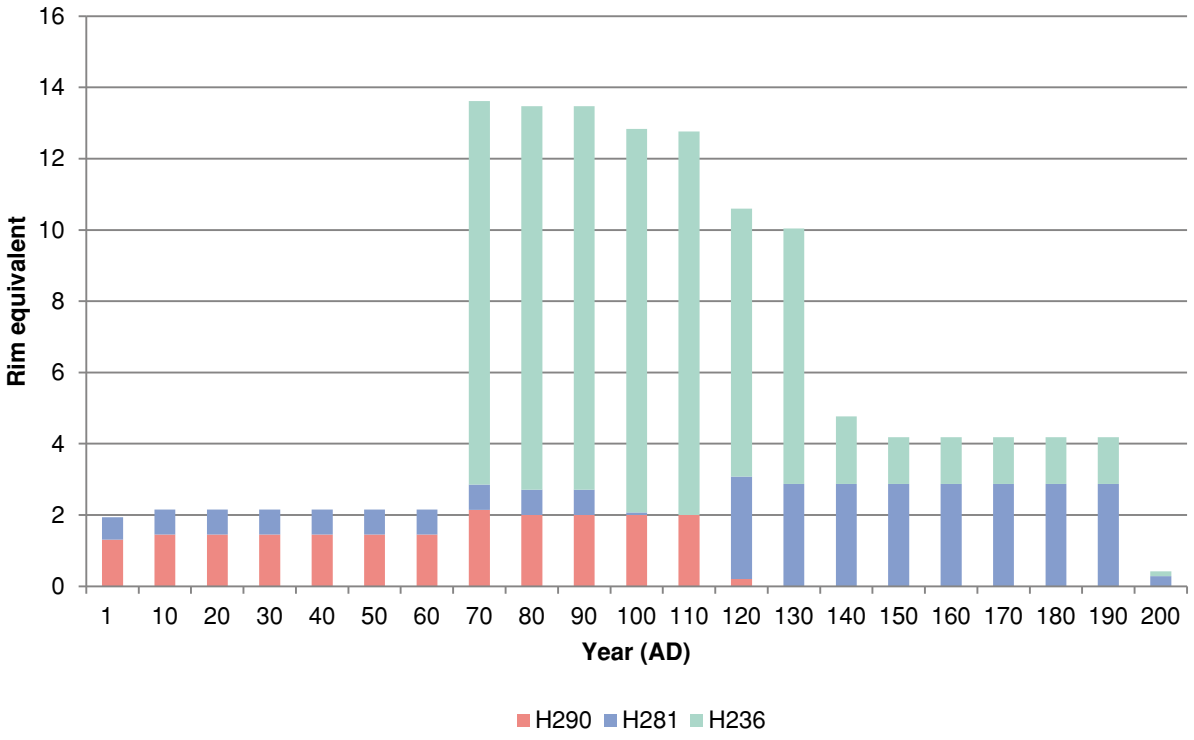


Fig 6.32 Date distribution for vessels from wells, Site H. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

The date distribution for the later trackway and enclosures, following their rearrangement, shows a large residual peak of mid 1st-century AD material with some continuation into the early 2nd century AD and with a sharp decline by the mid 2nd century (Fig 6.30). The nature of the curve suggests a settlement that it is very much fading by this period, and is not of the same status or level of activity as the previous periods.

Table 6.6: Pottery occurrence by context type, Site H

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Layers	>0.1	>0.1	-	-	-	1.00	-
Pits	17.0	18.4	20.1	23.3	20.4	12.38	15.67
Postholes	0.1	>0.1	-	-	-	4.00	-
Burials	16.0	4.2	2.9	2.5	20.3	3.02	11.43
Ditches	61.9	71.9	71.1	68.4	56.7	13.38	12.98
Gullies	1.6	1.4	1.3	1.0	0.6	9.72	10.67
Wells	3.3	3.9	4.6	4.8	2.0	13.47	14.00
Mean value	-	-	-	**32.25**	**29.73**	**11.48**	**13.49**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Later pottery of the 1st century AD comprises a number of South Gaulish samian vessels; late 1st- to early 2nd-century pottery is represented strongly by a number of grey wares, Harrold products and *Verulamium* region jars <P240> and mortaria <P241>. The 2nd-century wares are represented by Central Gaulish products: a Dr37 bowl <P242>, a Dr27 cup <P243> and a Dr18/31R dish <P244>, as well as grey ware bowls <P245>, <P246> and <P247>. Later 1st- to mid 2nd-century pottery is shown by the presence of a Black burnished flange rim bowl <P248> and Horningsea jar <P249>. The latest material is Central Gaulish samian; the stamped base of a Dr38 bowl <P250>, dish <P251> and an East Gaulish samian Dr37 bowl fragment <P295> with a naked boxer as decoration.

The date distributions for the two main foci of activities relate to contexts in the north of the site and others in the south (Fig 6.31). Both are broadly contemporary although there was much more activity in the north. It would also appear that whatever activities occurred during the settlement's waning years, they are mainly focused in the north of the site. The date distribution for the wells implies the first well to go out of use was H[236] (Fig 6.32). The disuse of the other well, H[281], occurred later.

Table 6.7: Pottery occurrence by context type and area, Site H

Context type	North area	South area
Ditches	72.4%	75.7%
Burials	-	6.0%
Gullies	0.3%	6.6%
Layers	-	0.1%
Pits	22.0%	11.6%
Wells	5.3%	-

TAPHONOMY

The breakdown by context type for the pottery assemblage is shown in Table 6.6. The largest amount of pottery came from ditches and gullies (62%), followed by pits (17%), graves (16%), wells (3%) and with very little pottery from layers (0.1%). The level of deposition in pits was quite high, which can be a sign of industrial activities, although here much seems to derive from pit H[240], which has a number of complete vessels and complete profiles, indicative of a special or structured deposit. Similarly, the high level of samian in pit H[302] may also point to special practice and perhaps also for features H[340] and H[621]. The sherds from pits appear to reflect differential deposition of pottery parts as well as regional preferences for discard in pits or in ditches (Mills 2016), which could be related to the use of the wells.

Table 6.7 shows the difference in the taphonomic breakdown between the northern part of the site and the southern part. Both show a general rural pattern; the majority of the material was from ditches and gullies and very little material from 'layers', although burials were confined to the south and the wells were to the north. There was also a much higher level of deposition in pits in the northern group.

The deposition types for the earlier trackways and enclosures were very utilitarian and mainly from ditches and gullies (Table 6.8). The taphonomic breakdown of pottery for the funerary enclosure and pyre site shows deposition in burial pits was high, at 88%, followed by other pits and gullies (Table 6.9). Deposition after the site was reorganised included two wells and a much higher level of pits, with a corresponding decline in deposition in ditches and gullies (Table 6.10). Residual sherds of this period also occurred amongst the Saxon grave fills.

Table 6.8: Pottery occurrence by context type for initial trackways and enclosures, Site H

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Layers	0.1	0.1	-	-	-	1.00	-
Pits	7.3	6.7	4.3	2.4	11.1	10.96	6.50
Ditches	87.7	88.6	91.5	94.8	85.6	11.93	11.98
Gullies	4.9	4.6	4.2	2.8	3.3	11.18	7.50
Mean value	-	-	-	**5.43**	**5.83**	**11.81**	**11.55**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.9: Pottery occurrence by context type for the funerary enclosure and associated features, Site H

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Pits	5.7	4.9	16.7	23.2	-	3.00	19.00
Postholes	0.9	1.1	-	-	-	4.00	-
Burials	88.2	81.7	66.6	56.1	97.7	3.24	11.50
Ditches	0.5	0.8	-	-	2.3	6.00	-
Gullies	4.7	11.5	16.7	20.7	-	8.50	17.00
Mean value	-	-	-	**0.82**	**3.07**	**3.49**	**13.67**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.10: Pottery occurrence by context type for later reorganisation of the trackways and enclosures, Site H

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Pits	25.0	23.2	23.5	28.3	29.6	12.8	16.6
Ditches	69.0	71.1	70.4	65.4	67.1	14.19	12.79
Gullies	0.3	0.1	-	-	-	2.50	-
Wells	5.7	5.6	6.1	6.3	3.3	13.47	14.00
Mean value	-	-	-	**24.64**	**17.60**	**13.76**	**13.77**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

THE POTTERY ASSEMBLAGE FROM WELLS

Table 6.11 provides a detailed catalogue of the pottery from wells H[236] and H[281]. Pottery from well construction pit H[290] is included. The character of the pottery from these wells is overwhelmingly domestic and elicits an expectation of settlement in close proximity, although no domestic structures were identified in the excavated area.

The date distributions suggest that well H[236] is the earliest in the sequence. Datable forms include residual, grog and sand tempered jar <P253>, oxidised bowl <P254> of Flavian to Trajanic (AD69–117) date and greyware jar <P255>. Other datable sherds include the mica dusted sherd <P256>, F09, and two body sherds of *Verulamium* region whiteware <P246> of mid 1st to mid 2nd-century date. The latest piece is a sherd of South Gaulish samian <P258>, S20, from AD120–160. This provides a mid 2nd-century date for disuse and backfill for the well.

Pit H[290] was a construction pit for well H[236] that had a considerable amount of material in it of late 1st to mid 2nd-century date. Pottery included a South Gaulish Dr18 dish <P259> from AD50–110, *Verulamium* whiteware flagon <P260> from AD70–140, white slip ware jar <P261> of Flavian to Trajanic (AD69–117) date, two greyware jars <P262> and <P263> from the late 1st to 2nd centuries.

Table 6.11: Pottery recovered from wells, Site H

Context	Fabric Code	Part	Referenced sherd	Function	Date from AD	Date to AD	Sherd count	Weight (g)	MNR	RE	RD	BD	BE	Notes
Well shaft H[281]														
280	B01	Rim	B01/1	B	120	200	1	13	1	10	20	-	-	-
280	C11	Body	-	-	-	-	1	35	0	0	0	-	-	-
280	C12	Body	-	-	-	-	3	13	0	0	0	-	-	-
280	E361	Rim	E361/1	SJ	1	100	1	45	1	7	25	-	-	-
280	R08	Body	R08/5	B	120	200	2	54	0	19	17	-	-	-
280	W05	Body	-	-	-	-	2	23	0	0	0	-	-	Sooted
Well construction pit H[290]														
235	E01	Base	-	-	-	-	1	17	0	0	0	10	14	Sooted
235	E01	Body	-	-	-	-	3	20	0	0	0	-	-	-
235	E01	Body	-	-	-	-	1	5	0	0	0	-	-	-
235	E01	Body	-	-	-	-	7	17	0	0	0	-	-	-
235	E011	Body	-	-	-	-	1	4	0	0	0	-	-	-
235	E03	Body	-	-	-	-	1	9	0	0	0	-	-	-
235	E12	Body	-	-	-	-	1	7	0	0	0	-	-	-
235	E14	Body	-	-	-	-	1	18	0	0	0	-	-	-
235	E141	Body	-	-	-	-	2	42	0	0	0	-	-	-
235	Q01	Rim	Q01/1	J	70	120	1	21	1	18	17	-	-	-
235	R01	Rim	R01/1	J	70	200	1	7	1	6	15	-	-	-
235	R01	Rim	R01/4*	J	70	400	1	6	1	14	12	-	-	-
235	R011	Base	-	-	-	-	1	14	0	0	0	8	24	-
235	R011	Body	-	-	-	-	5	40	0	0	0	-	-	-
235	R06	Body	-	-	-	-	1	8	0	0	0	-	-	-
235	R11	Body	-	-	-	-	1	1	0	0	0	-	-	-
235	S10	Base	-	D	50	110	5	23	0	0	0	12	5	burnt heavily
235	S10	Base	SG/ Dr18*	D	50	110	1	16	0	0	0	-	-	-
235	S10	Body	-	-	50	110	1	1	0	0	0	-	-	closed form
235	W05	Base	-	-	-	-	1	38	0	0	0	9	15	-
235	W05	Body	-	-	-	-	1	10	0	0	0	-	-	-
235	W05	Rim	W05/1	F	70	140	1	46	1	41	6	-	-	-
303	C13	Body	-	-	-	-	1	5	0	0	0	-	-	-
303	E02	Body	-	-	-	-	2	1	0	0	0	-	-	-
303	E02	Body	-	-	-	-	1	40	0	0	0	-	-	-
303	O01	Body	-	-	-	-	1	1	0	0	0	-	-	-
303	R11	Body	-	-	-	-	1	31	0	0	0	-	-	-
304	R01	Rim	R01/1	J	70	200	1	44	1	11	16	-	-	-
Well shaft H[236]														
233	O01	Body	-	-	-	-	3	8	0	0	0	-	-	-
233	R085	Body	-	-	-	-	1	36	0	0	0	-	-	-
233	R11	Body	-	-	-	-	1	7	0	0	0	-	-	-

Context	Fabric Code	Part	Referenced sherd	Function	Date from AD	Date to AD	Sherd count	Weight (g)	MNR	RE	RD	BD	BE	Notes
233	W05	Body	-	-	50	160	1	23	0	0	0	-	-	-
233	C12	Body	-	-	-	-	1	9	0	0	0	-	-	-
233	E01	Body	-	-	-	-	1	4	0	0	0	-	-	Sooted
233	E13	Rim	E13/4	J	1	70	1	20	1	10	16	-	-	-
233	E14	Body	-	-	-	-	1	29	0	0	0	-	-	-
233	F09	Body	-	-	90	120	1	23	0	0	0	-	-	gold mica dusted
233	O01	Rim	O01/3	B	70	120	4	57	1	10	12	-	-	-
233	R01	Body	-	-	-	-	2	22	0	0	0	-	-	-
233	R06	Rim	R06/1	J	70	400	1	3	1	8	16	-	-	-
233	R08	Body	-	-	-	-	4	54	0	0	0	-	-	-
233	R085	Body	-	-	-	-	2	19	0	0	0	-	-	Sooted
233	R11	Body	-	-	-	-	2	32	0	0	0	-	-	Sooted
233	R11	Body	-	-	-	-	1	47	0	0	0	-	-	-
233	R11	Body	-	-	-	-	1	5	0	0	0	-	-	-
233	R11	Body	-	-	-	-	7	56	0	0	0	-	-	-
233	W05	Body	-	-	50	160	5	90	0	0	0	-	-	-
533	S20	Body	-	-	120	160	4	11	0	0	0	-	-	-
534	Q01	Body	-	-	70	300	4	123	0	0	0	-	-	-
534	R082	Body	-	-	-	-	4	64	0	0	0	-	-	-
534	R11	Body	-	-	-	-	3	78	0	0	0	-	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, RD = Rim Diameter, BD = Base Diameter, BE = Base Equivalent, Flagons (F), Storage Jars (CJ), Jars (J), Bowls (B), Dishes (D)

Well H[281] had relatively little ceramic and included storage jar <P264> from the 1st century AD, bowl <P265> of mid to late 2nd-century date and black burnished dish <P248> from AD120–200. Deposition seems to have occurred in the mid to later 2nd century and there is no evidence of anything later than this.

SITE Q

There are 856 sherds (8.82kg) with a MNR of 45, a rim equivalent of 5.00 and a base equivalent of 6.76. The quantity of pottery by period group is shown in Table 6.12.

The date distribution shows that activity increased from the later 1st century BC (Fig 6.33), peaking in the mid 1st century AD, but with no evidence of much activity in the late 1st or early 2nd century.

The date distribution for early transitional ceramics is shown in Fig 6.34. There are two handmade jars <P266>, both of type E141, and whilst the majority of the

Table 6.12: Pottery by period, Site Q

	Sherds	%	Weight (g)	%	MNR	%	RE	%	BE	%
Pre-enclosure features	188	22.0	1888	21.4	4	8.9	34	6.8	100	14.8
Enclosure established	388	45.3	3822	43.3	18	40.0	254	50.8	301	44.5
Late use of enclosure	195	22.8	2639	29.9	19	42.2	187	37.4	249	36.8
Residual pottery	85	9.9	471	5.4	4	8.9	25	5.0	26	3.9
Overall values	**856**	**-**	**8820**	**-**	**45**	**-**	**5.00**	**-**	**6.76**	**-**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent

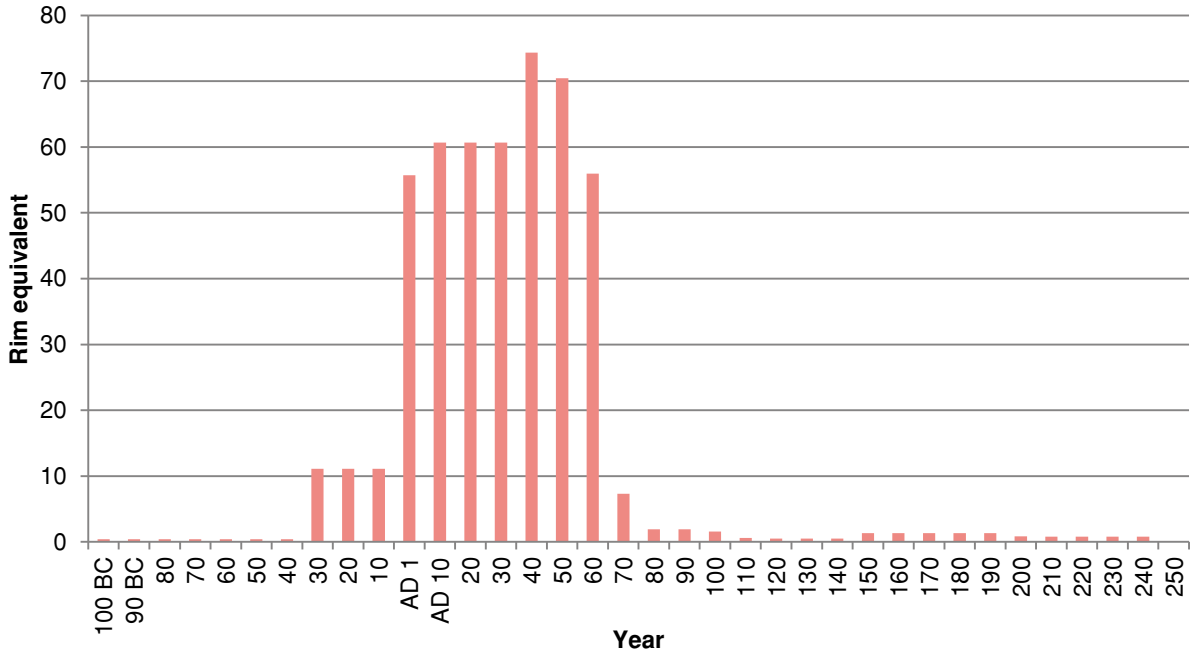


Fig 6.33 Overall date distribution for vessels with a restricted date range by RE, Site Q. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

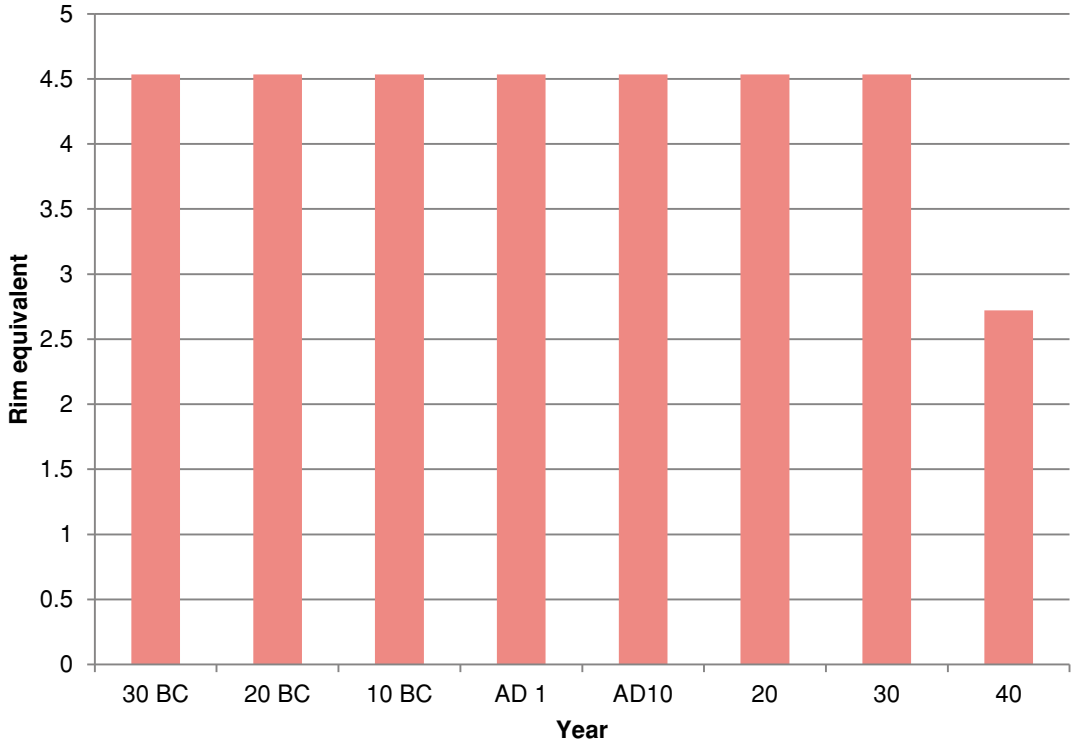


Fig 6.34 Date distribution for vessels from ditches and pits pre-dating the enclosure, Site Q. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

sherds are Aylesford–Swarling wares it seems unlikely that this period would date much beyond the late 1st century BC.

The development of the transitional wares shows a strong presence of early to mid 1st-century AD material (Fig 6.35). The majority of sherds are from handmade

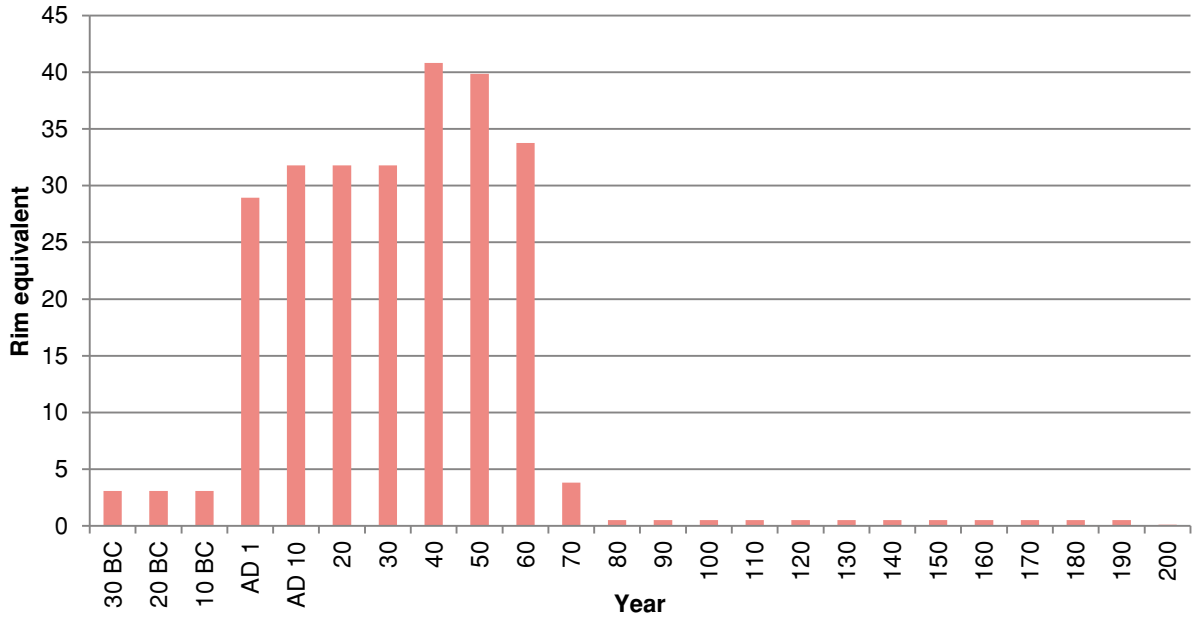


Fig 6.35 Date distribution for vessels from the initial arrangement of the enclosure, Site Q. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

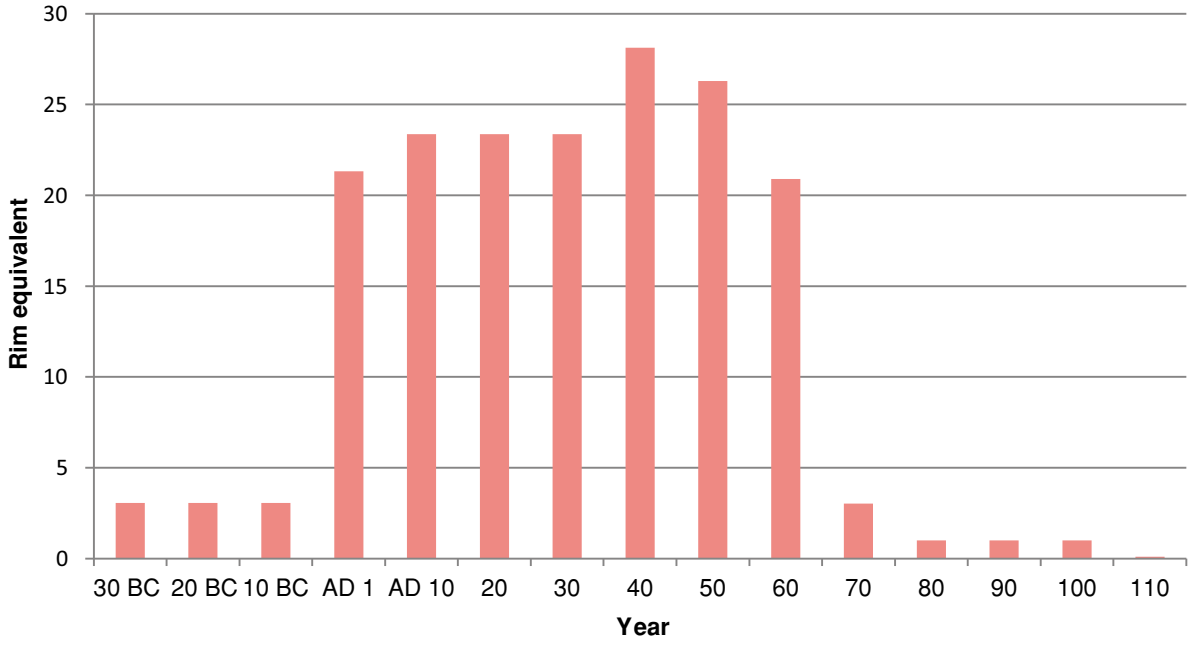


Fig 6.36 Date distribution for vessels from the final disuse of the enclosure, Site Q. Rim equivalents expressed as percentage of complete rim circumference (i.e. 100 RE = 1 complete rim circumference)

Aylesford–Swarling vessels including a Gallo Belgic CAM24 platter copy <P267>. The latest piece is a possible Harrold jar <P268> from ditch Q[1169].

The latest transitional wares are broadly similar in form as their predecessors, but with a late 1st-century AD component (Fig 6.36). In addition to the Aylesford–Swarling vessels which make up the bulk of the datable material there is a possible Harrold shell tempered jar <P269> and a Southern Gaulish Dr18/31 dish <P270> from AD70–110.

A small amount of material was residual in later contexts, which included a shell tempered jar <P271> of late Iron Age or later date and an East Gaulish Dr38 bowl <P272> of AD150–250 date. There were also two Aylesford–Swarling vessels: jar <P273> of AD1–70 date and a CAM24 platter copy <P274> from AD45–60.

TAPHONOMY

The taphonomic breakdown is utilitarian with most deposition in ditches and gullies (Table 6.13). Much of the pottery (16%) comes from the three cremation urns that were recovered. The sherd size for pits is less than one third of that for the urns, similar to Site H, excluding special characteristics.

The breakdown of the deposition of early transitional pottery shows ditches and gullies at 47%, pits at 29% and the cremation urns accounting for the remainder (Table 6.14). After the enclosure was established, deposition was predominantly focused on ditches and gullies, and features associated with the funerary period of activity (Table 6.15). Few pits contained pottery of this date. The latest transitional

Table 6.13: Pottery occurrence by context type, Site Q

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Layers	0.1	0.1	2.2	0.4	-	9.00	2.00
Pits	9.1	4.3	2.2	1.0	-	4.90	5.00
Postholes	2.6	1.2	-	-	-	4.68	-
Burials	15.5	23.6	2.2	1.2	39.6	15.65	6.00
Ditches	68.4	67.7	93.4	97.4	58.3	10.21	11.60
Gullies	4.3	3.1	-	-	2.1	7.32	-
Mean value	**-**	**-**	**-**	**5.00**	**6.76**	**10.30**	**11.11**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.14: Pottery occurrence by context type from pre-enclosure features, Site Q

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Pits	28.7	15.0	-	-	-	5.26	-
Postholes	0.5	0.8	-	-	-	15.00	-
Burials	23.4	51.1	-	-	100.0	21.93	-
Ditches	33.0	22.6	100.0	100.0	-	6.87	8.50
Gullies	14.4	10.5	-	-	-	7.33	-
Mean value	**-**	**-**	**-**	**0.34**	**1.00**	**10.04**	**8.5**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.15: Pottery occurrence by context type from the initial arrangement of the enclosure, Site Q

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Layers	0.3	0.2	5.6	0.8	-	9.00	2.00
Pits	2.3	1.6	-	-	-	6.89	-
Burials	22.9	29.2	5.6	2.4	55.8	12.54	6.00
Ditches	73.0	68.5	88.8	96.8	44.2	9.25	15.38
Gullies	1.5	0.5	-	-	-	3.00	-
Mean value	**-**	**-**	**-**	**2.54**	**3.01**	**9.85**	**14.11**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.16: Pottery occurrence by context type from the final disuse of the enclosure, Site Q

Context type	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
Postholes	3.6	0.9	-	-	-	3.29	-
Ditches	95.9	97.5	100.0	100.0	94.4	13.76	9.84
Gullies	0.5	1.6	-	-	5.6	42.00	-
Mean value	**-**	**-**	**-**	**1.87**	**2.49**	**13.53**	**9.84**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

wares are dominated by deposition in ditches, with a small quantity finding its way into postholes (Table 6.16). Residual sherds in medieval contexts were high.

Table 6.17: Roman pottery classifications

Class	Warwick-Oxford system (Booth 2000)
A	Amphora
B	Black burnished
C	Shell tempered
E	Aylesford-Swarling
F	Colour-coated finewares
M	Mortaria
O	Oxidised
Q	White slip
R	Reduced
S	Samian
W	Whiteware

Land to the north of Ouzel Brook, Site J

There are *c*.60 sherds (1.23kg) from a single storage jar <P275> in a grey fabric containing grog, with orange surfaces and a thick rounded rim from ditch J[1006]. Such storage jars are characteristic of the late pre-Roman Iron Age in the early 1st century AD.

Four other contexts contained small groups of pottery, with a total weight of 78g, which is less diagnostic and broadly late Iron Age in date. All of the fabrics fall mainly within the classification of Aylesford–Swarling wares.

Pottery supply in the valley of the Ouzel Brook

The pottery classifications in Table 6.17 apply to the groups of fabric descriptions.

The breakdown by ware class for Site H shows that Aylesford–Swarling pottery was dominant (Table 6.18). Whitewares were common but not as much as those from the cremation cemetery at Site F. Reduced and

Table 6.18: Pottery supply by fabric, Site H

Ware Class	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
A	0.6	1.6	0.0	-	-	32.84	-
B	0.1	0.0	0.8	0.5	-	8.50	8.00
C	4.4	6.6	5.4	4.8	1.9	17.31	11.85
E	75.1	73.7	65.4	64.0	63.6	11.24	13.24
F	0.0	0.1	-	-	-	23.00	-
M	0.1	0.6	0.8	0.8	-	123.00	12.50
O	2.7	1.6	2.9	3.0	2.9	6.98	13.71
R	10.1	10.2	19.7	22.1	15.7	11.39	15.15
S	1.3	0.8	1.7	0.7	2.9	7.37	5.50
Q	0.6	0.7	0.8	0.9	1.2	14.37	14.50
W	5.0	4.1	2.5	3.2	11.8	9.45	17.67
Mean values	**-**	**-**	**-**	**32.25**	**29.73**	**11.48**	**13.49**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.19: Pottery supply by fabric, Site H, comparison of the north and south areas

Area	Fabrics expressed as a percentage of the assemblage group											Total no. of sherds
	A	B	C	E	F	M	O	Q	R	S	W	
North	-	-	6	73	-	-	3	1	12	2	3	**2101**
South	2	-	2	78	-	1	2	1	10	-	4	**722**

Table 6.20: Pottery supply by fabric, Site H, by period

Features	Fabrics expressed as a percentage of the period											Total no. of sherds
	A	B	C	E	F	M	O	Q	R	S	W	
Initial trackways and enclosures	1.5	-	7.1	85.6	-	-	2.6	-	3.1	-	0.1	**779**
Funerary enclosure and features	-	-	-	90.9	-	-	1	-	8.1	-	-	**211**
Reorganisation of trackways and enclosures	0.4	0.1	4.7	69.6	0.1	0.1	3.5	1.0	13.3	2.2	5	**1945**

Table 6.21: Pottery supply by fabric, Site Q

Ware Class	Values expressed as a percentage of the assemblage group					MSW	MPR
	Sherds	Weight (g)	MNR	RE	BE		
B	0.1	0.1	-	-	-	5.00	-
C	16.2	18.9	6.7	4.6	20.6	11.99	7.67
E	77.2	77.9	88.9	93.0	68.0	10.43	11.63
O	0.5	0.3	-	-	-	7.25	-
R	2.1	1.7	-	-	4.6	8.33	-
S	0.2	0.1	4.4	2.4	-	5.50	6.00
W	3.7	1.0	-	-	6.8	2.63	-
Mean values	**-**	**-**	**-**	**5.00**	**6.76**	**10.30**	**11.11**

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent, BE = Base Equivalent, MSW = Mean Sherd Weight, MPR = Mean Percentage Rim (RE/MNR)

Table 6.22: Pottery supply by fabric, Site Q, by period

Period	Fabrics expressed as a percentage of the period							Total no. of sherds
	B	C	E	O	R	S	W	
Enclosure established	-	8.5	81.2	0.3	1.8	-	8.2	**388**
Late use of enclosure	-	7.2	87.7	0.5	4.1	0.5	-	**195**

shell tempered wares were also more frequent after the reorganisation of Site H, than in the cremation cemetery at Site F. The assemblages from funerary deposits are catalogued in detail in Chapter 5, and referred to here where relevant.

The breakdown of wares by area at Site H shows an interesting contrast between the groups with amphorae and mortaria only present in the south and samian only present in the north (Table 6.19). There was an overall decline in Aylesford–Swarling wares into the late 1st century AD, although the most characteristically Roman fabric styles occurred early on (Table 6.20).

At Site Q higher levels of calcareous shell tempered fabrics occurred than at the other sites (Table 6.21). This could be a result of the earlier abandonment, as well as greater access to calcareous sources. Whitewares occurred less than on other sites, suggesting lower social status, although most whitewares found across the sites occurred alongside funerary deposits. Reduced wares were largely uncommon, underlying the probable earlier cessation of supply to Site Q (Table 6.22).

Pottery classifications

The distribution of pottery by period is most informative from Site H and Site Q, which will be referred to collectively as the main transitional sites. At Site H this broadly divided into an earlier period and a later period, synonymous with the reorganisation of the trackways and enclosures. Overlapping these was an intermediate period during which the funerary enclosure was in use. The cremation cemetery at Site F represented a single period of activity, which may be more or less contemporary with the operation of the pyres at Site H and is referred to where relevant. Further comment on the Site F assemblage can be found in conjunction with the funerary evidence in Chapter 5.

Pottery from Site Q also has a fairly simple balance of ceramic periods, with those fabrics pre-dating the enclosures clearly rooted in the late Iron Age and subsequent fabrics lying within a broad range across the 1st century AD either at the beginning or towards the end of the enclosure lifespan. There was, however, a high residual element in medieval ditches and pits cutting across the site.

From the smaller sites at Site P and Site J there was so little material that it does not contribute to an understanding of ceramic deposition.

Class A: Amphorae

Amphorae were only present at Site H, where they comprised 0.5% by sherd count of the overall assemblage, all of them from non-funerary contexts. All the sherds are of Dressel 20 amphorae (Tomber and Dore 1998, BAT AM). This is a Spanish amphora carrying olive oil in use from the 1st to 3rd century AD. Its occurrence on rural sites is usually low and suggest at least indirect links with the wider Roman economy. Most settlement sites in Bedfordshire have not produced amphora sherds, and when they have they have been in a similarly low percentage with Biddenham SP9 (Wells 2016); Ruxox (Parminter and Slowikowski 2004) at less than 1% of the assemblage and Kempston phase 2 (Parminter and Slowikowski 2004) at 2%.

Class B: Black Burnished wares

Dorset Black Burnished ware (*ibid*, DOR BB1) comprises less than 1% of assemblages across the main sites in early Roman contexts, with no occurrence at Site F. This is much lower than across the wider region (Allen and Fulford 1996). The assemblages compare well with 0.3% from the Flavian to Trajanic (AD69–117) cemetery at Towcester, Northamptonshire (Mills and Evans 2016) and 1% from a rural site at Stoke Mandeville, Buckinghamshire dated late Iron Age to the 2nd century (Mills and Evans 2014). In Bedfordshire they were found in similarly low quantities at Ruxox phases 2 and 3 (Parminter and Slowikowski 2004) at Marsh Leys phase 3 (Wells 2011) and A421 site 8 (Stansbie 2007) where they comprised up to 1% of the assemblage. The only form noted at the A5–M1 link was flanged rim bowl <P248>.

Class C: Shell tempered wares

Shell tempered wares make up less than 1% of the assemblage from Site F, 4% at Site H and 16% at Site Q. At Site H they were more prevalent in the north than in the south, forming 7% of pottery from the initial trackways and enclosures, declining to 5% following the later rearrangement. At Site Q they comprised 9% of the earliest fabrics and 7% of fabrics following the establishment of the enclosure. Notably 41% of residual sherds are in this fabric where a medieval ditch and the enclosure coincide.

Class C fabrics become more common further north in the Bedfordshire county, nearer to the Harrold industries (Brown 1994) which dominate this class in most sites and become more common in the late 1st century and onwards. Sites F and H have amongst the lowest levels of pottery in this class for the county whilst Site Q has noticeably high levels.

Oxidised Harrold shell tempered wares

The bulk of sherds were Harrold shelly wares (Tomber and Dore 1998, HAR SH), although some other calcareous wares were present. These sherds comprise 2% of the Site H assemblage, making up 6% from

trackways and enclosures. At Site Q they make up 7% of the overall assemblage where they comprise 23% of fabrics from the earliest features and 7% of sherds from the enclosure.

This level seems to fit within the greater region compared with 7% from the Towcester (Mills and Evans 2016) and 6% from Stoke Mandeville (Mills and Evans 2014). In Bedfordshire, settlements to the north of the A5–M1 link sites mostly had significantly more of this pottery fabric with for example A421 site 1, phase 6 containing 28% (Stansbie 2007), Kempston phase 2 at 28% (Parmiter and Slowikowski 2004) and Marsh Leys phase 3 at 23% (Wells 2011).

REDUCED SHELL TEMPERED WARES

C12: This comprises 1% of pottery from Site H, 4% amongst non-funerary groups. At Site Q it forms 1% of pottery from securely Roman features and rises to 6% amongst residual contexts. The only form noted was <P230>.

OTHER SHELL TEMPERED WARES

C13: This was an oxidised handmade ware with shell temper and some limestone inclusions present only at Site H, at less than 1% of all sherds. This fabric is rarely found in Bedfordshire, but was recovered at A421, site 4, phase 6 at under 1% (Stansbie 2007). The only form at Site H was channel rim jar <P276>.

C14: A possible handmade oxidised shell tempered fabric which is not from Harrold. This was present at 1% or less for the main sites, including Site F. At Site H it was mainly found amongst the initial trackways and enclosures and declined after the site reorganisation. At Site Q it was present at similar levels after the enclosure was founded. Similar quantities have been recovered at many other Bedfordshire sites with percentages ranging from under 1% to East Stagsden phase 3 at 6% (Dawson 2000) with the except Shillington Bury where a notable quantity of this fabric (41% of the assemblage) was found (Parminter and Slowikowski 2004).

C15: This is a reduced handmade shell tempered fabric with a grey core. This fabric type was produced at Stagsden (Dawson 2000). It was present at less than 0.1% at Site F, less than 1% at Site H and at 3% at Site Q, mainly after the enclosure had been established. Two stratified examples of C15 were noted: <P231>, <P271>.

C16: This is a reduced handmade shelly fabric. It is present at less than 1% from Sites F and H, with the latter mainly from trackways and enclosures. At Site Q, 5% of sherds occurred in this fabric after the enclosure was founded. The occurrence of this pottery fabric is high for Bedfordshire which only has notable levels of this fabric at West Stagsden phase 5 at 8% (Dawson 2000).

C17: An oxidised handmade fabric with brown margins and surfaces with common shell temper. It was only found at Site H where it formed less than 1% of the overall assemblage during the latest rearrangement of ditches. A bowl with a flanged rim <P277> is noted in this fabric.

CLASS E: AYLESFORD–SWARLING WARES

These fabrics are mainly grog tempered, formerly known as 'Belgic'; they are the most common class in the assemblage for all the sites reflecting the transitional dates and their rapid decline in importance at the end of the 1st century AD. There are high levels on all of the main transitional sites ranging between

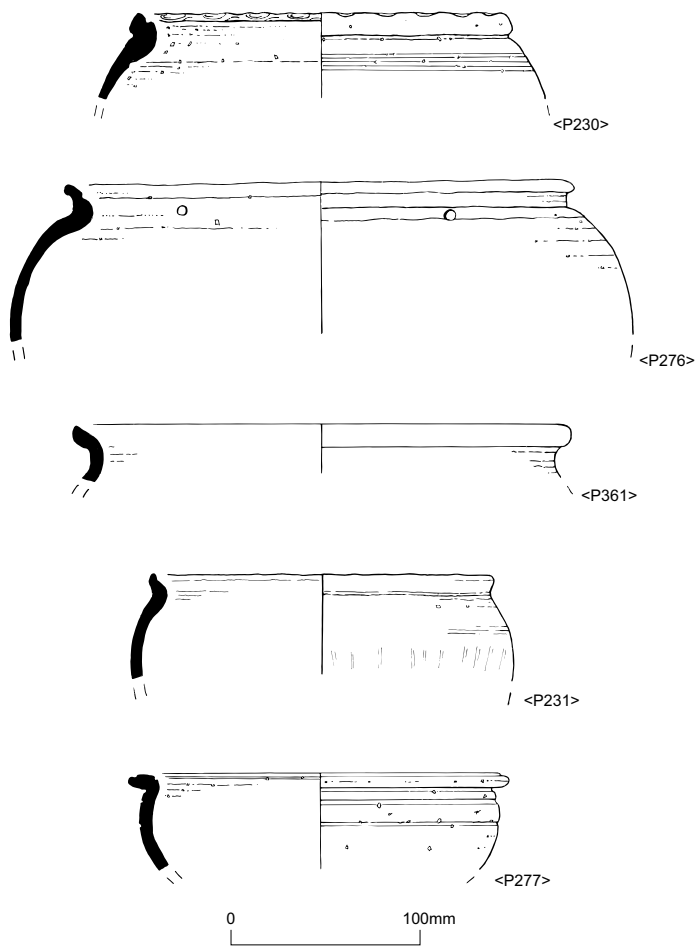


Fig 6.37 Transitional late Iron Age/Roman pottery, shell tempered wares

72-85% of all sherds. These percentages are similar to Ruxox (Parminter and Slowikowski 2004), Biddenden Loop (Wells 2008a; 2016) and A421(Stansbie 2007).

Mainly grog tempered fabrics seem to slightly decline from south to north in the county. They are found in particularly high quantities at Marston Vale (Biddulph 2013). Sand tempered fabrics seem to be an important supply around Biddenden Loop (Wells 2008a; 2016), although the high level at site Q Phase 2 may be from another source of imply a chronological factor relating to supply of fabrics with these temper types. Vessels with calcareous and grog temper seem to be highest to the west of the study area and are high at A5–M1 link Site Q and at Stagsden (Dawson 2000).

In order to more usefully present trends in supply, these fabrics have been grouped together, based on crafting method (handmade or wheelmade) and their principle inclusions (calcareous, grog, organic and sand tempers).

Table 6.23 shows the number of sherds amongst these groups by site, broken down by site period. The most common group at Site F, a cremation cemetery, is the wheelmade grog tempered, followed by the wheelmade sand tempered group. Less than a quarter of sherds are handmade products from Site F. At Site H, which included evidence across all periods, this trend is the other way around with a handmade sand tempered group bringing up the rear. There is an even balance of wheelmade and handmade products at Site H. For Site Q the most common group is sand tempered with a preference for wheelmade products before handmade products and then for calcareous wheelmade products. Handmade products account for 34% of the pottery from Site Q. This high level of handmade material compared to the other sites perhaps reflects the earlier cessation date for pottery supply than elsewhere. The other sites appear to still receive this pottery when wheelmade pottery is dominant and this may reflect a differing social status of the sites.

The following abbreviations apply: CHM, Calcareous handmade; CWM, Calcareous wheelmade; GHM, Grog handmade; GWM, grog wheelmade; OHM, organic handmade; SHM, sand handmade; SWM, sand wheelmade.

GROG TEMPERED HANDMADE WARES (GHM)

E02: This is a handmade reduced fabric with abundant angular white grog *c.*0.52mm. It forms 3% of the Site F sherds and less than 1% of sherds from other sites. It makes up 3% of fabrics from the funerary period of activity at Site H but less than 1% of pottery from trackways and enclosures. At Site Q it makes up less than 1% after the establishment of the enclosure.

E03: This is a handmade oxidised fabric with common grog inclusions, which forms 15% of sherds from the Site F cremation cemetery, but less than 1% of those from Site H, funerary or otherwise.

E11: This comprises 2% of sherds from Site F, less than 1% from the Site H trackways and enclosures and 0.1% from Site Q after the establishment of the enclosure. Forms in this fabric include jars, a bowl and a CAM24 copy platter.

Table 6.23: Aylesford-Swarling fabrics by principle inclusions and production method

	Fabrics expressed as a percentage of the site and period							Total % of sherds	Total no. of sherds
Period	**CHM**	**CWM**	**GHM**	**GWM**	**OHM**	**SHM**	**SWM**		
Site H	8	>1	1	16	>1	15	34	76	**3344**
Initial trackways and enclosures	9	1	1	10	>1	18	45	85	**779**
Funerary enclosure and features	-	>1	3	18	-	36	34	92	**211**
Reorganisation of trackways and enclosures	10	1	2	15	>1	8	34	71	**1945**
Site Q	6	10	1	5	>1	27	28	78	**856**
Pre-enclosure features	1	-	-	-	-	60	-	61	**188**
Enclosure established	6	16	3	4	>1	20	33	83	**388**
Late use of enclosure	5	10	-	16	-	8	49	88	**195**
Site F									
Cremation cemetery	-	-	11	33	-	13	26	83	**1196**

Key: CHM = Calcareous Handmade; CWM = Calcareous Wheelmade; GHM = Grog Handmade; GWM = grog Wheelmade; OHM = Organic Handmade; SHM = Sand Handmade; SWM = Sand Wheelmade

E211: This is a handmade reduced fabric, related to E21, with common grey grog temper. It is present at 9% in the Site F assemblage and 1% elsewhere. At Site H there was twice as much from the funerary period of activity as for other periods, but still less than 2% overall. It was present at 3% at Site Q but only after the establishment of the enclosure. Jars were common with a small number of dishes and lids, but with an absence of beakers, bowls or other forms (Table 6.24). Two butt beakers <P172> and <P177> occurred amongst Site F cremation burials.

Table 6.24: Vessel forms for grog tempered handmade fabric E211

	Proportions between vessel forms (%)							
	Constricted neck jars	Storage Jars	Jars	Beakers	Bowls	Dishes	Lids	Other forms
Site H, all periods								
MNR, 11 rims	-	-	81.8	-	-	9.1	9.1	-
RE, 2.07	-	-	94.7	-	-	2.9	2.4	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

E01: This is an oxidised wheelmade fabric with some grey grog inclusions and organic temper voids. It is an oxidised version of E21. This is present at 3% of Site F, 8% of Site H and 4% of Site Q. It is more common in non-funerary contexts and at Site Q sees a rise from 2% to 14% after the enclosure was created. The majority of the forms are jars, with a single bowl <P278>.

E21: This is a reduced wheelmade fabric with some grey grog inclusions and is a reduced version of E01 making up 12% of Site F cemetery fabrics, 4% from Site H in non-funerary contexts only, and 1% from Site Q overall, with more occurrences towards the disuse of the enclosure.

E24: A wheelmade reduced fabric with common grog and some moderate quartz. This was present at 3% of sherds from Site H, and less than 1% elsewhere. At Site H it is present at 2% for the earlier trackways and enclosures, seeing a rise to 4% after their rearrangement. At Site Q it was present at 2% only after the enclosure was established. A single jar from Site H was noted <P279>.

E25: This is a wheelmade reduced fabric with common grog and some calcareous inclusions that makes up less than 1% of sherds from Site H and only occurred in non-funerary contexts throughout.

SAND AND GROG TEMPERED HANDMADE WARES (SHM)

E121: This is a handmade reduced fabric with sand and black grog inclusions. This is present at 4% of Site H and 5% of Site Q. It rarely occurred in funerary contexts and is slightly more prominent in the earlier than the later periods of occupation. At Site Q it forms 10% of sherds during occupation of the enclosure. As well as jars and a platter this fabric also has a base sherd which had been reworked in antiquity, <P280>.

E131: A handmade reduced fabric with abundant sand. This is present at 3% from the Site F cremation cemetery, and 6% at Site Q, where it makes up 22% of fabrics prior to the enclosure being established and 11% afterwards. It was uncommon at Site H. A single channel rim jar was noted <P281>.

E141: This is a handmade reduced fabric with common sand temper and some grog. It was present at 3% at Site F, 8% at Site H and 15% at Site Q. Its pattern directly reflects that of fabric E121, rarer amongst funerary contexts and much more prominent in the earlier rather than later periods of trackways and enclosures. At Site Q it formed 38% of fabrics prior to the principal enclosure and 15% afterwards.

Only storage jars and smaller jars are noted from Site Q, based on 10 rims with MNR at 0.63. A slightly wider assemblage incorporating display and table wares came from Site H, with an absence of storage jars (Table 6.25). There was a rise in the proportion of jars from Site H after the rearrangement of the trackway ditches and enclosures. The lack of range in vessel forms at Site Q is because of its earlier cessation date.

E15: This is a reduced handmade fabric with large inclusions of grog and occasional large quartz. It comprises 1% of Site H during the final occupation only and 7% from Site Q, comprising 16% of sherds from features after the establishment of the enclosure.

E16: A reduced handmade fabric with occasional large inclusions of grog and common sand. It was present at 7% at the Site F cremation cemetery, 3% of the Site H assemblage, making up 20% of fabrics from the funerary enclosure features, and 1% of from Site Q. Its general occurrence across all non-funerary features was less than 1%.

SAND TEMPERED WHEELMADE WARES (SWM)

E11: This is a wheelmade oxidised fabric with moderate sand and moderate grog inclusions that occurred at less than 1%, mainly amongst the later transitional deposits.

E12: This is a wheelmade reduced fabric with common black grog and some sand. It makes up less than 1% of Site H sherds and 4% from Site Q, mainly amongst the later transitional deposits.

Table 6.25: Vessel forms for sand and grog tempered handmade fabric E141

	Proportions between vessel forms (%)							
	Constricted neck jars	Storage Jars	Jars	Beakers	Bowls	Dishes	Lids	Other forms
Site H, all periods								
MNR, 24 rims	-	-	79.1	4.2	16.7	-	-	-
RE, 3.21	-	-	82.8	4.7	12.5	-	-	-
Site H, after reorganisation								
MNR, 18 rims	-	-	83.3	-	16.7	-	-	-
RE, 2.22	-	-	91.9	-	8.1	-	-	-
Site Q, all periods								
MNR, 10 rims	-	10.0	90.0	-	-	-	-	-
RE, 0.63	-	22.2	77.8	-	-	-	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

E13: This is a wheelmade reduced fabric with abundant fine sand and some grog. It makes up 7% of sherds from Site H and 1% elsewhere. This seems to be a fabric that bridges the 2nd century and is quite rare in the earlier transitional deposits. The functional breakdown of this fabric was mainly from its latest period (Table 6.26).

E14: This is a wheelmade reduced fabric with common sand and occasional calcareous inclusions. It was present at 22% of sherds from the Site F cremation cemetery, 21% of sherds from Site H, which is fairly evenly balanced between funerary or non-funerary period features, and 13% at Site Q, where almost all sherds occurred in the later enclosure features.

Table 6.27 shows the functional breakdown by site, but there was a much wider functional diversity at Site H. This shows that beakers and constricted necked jars occurred amongst the initial layout of trackways and enclosures but not after their rearrangement. Dishes, bowls and lids were present in the later period, with an associated decrease in jars. This matches a pattern for an increasing preference toward pottery of Roman character and style after the reorganisation of Site H, and does not occur at Site Q, owing perhaps to its earlier abandonment.

E17: This is a reduced wheelmade fabric with inclusions of grog and quartz that comprises 3% of sherds from

Table 6.26: Vessel forms for sand tempered wheelmade fabric E13

	Proportions between vessel forms (%)							
	Constricted neck jars	Storage Jars	Jars	Beakers	Bowls	Dishes	Lids	Other forms
Site H, all periods								
MNR, 21 rims	4.8	-	57.1	-	-	38.1	-	-
RE, 2.76	5.4	-	68.9	-	-	25.7	-	-
Site H, after reorganisation								
MNR, 19 rims	5.3	-	57.9	-	-	36.8	-	-
RE, 2.45	6.1	-	76.3	-	-	17.6	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

Table 6.27: Vessel forms for sand tempered wheelmade fabric E14

	Proportions between vessel forms (%)							
	Constricted neck jars	Storage Jars	Jars	Beakers	Bowls	Dishes	Lids	Other forms
Site H, all periods								
MNR, 45 rims	2.2	-	75.6	2.2	6.7	8.9	2.2	2.2
RE, 5.58	2.1	-	86.7	1.5	2.9	4.6	1.1	1.1
Site H, initial trackways and enclosures								
MNR, 14 rims	7.1	78.7	7.1	7.1	-	-	-	7.1
RE, 1.87	5.9	86.6	4.3	3.2	-	-	-	5.9
Site H, after reorganisation								
MNR, 29 rims	-	72.5	-	6.9	13.8	3.4	3.4	-
RE, 3.48	-	79.9	-	2.9	13.8	1.7	1.7	-
Site Q, all periods								
MNR, 10 rims	-	-	70.0	-	10.0	20.0	-	-
RE, 1.19	-	-	55.5	-	10.0	34.5	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

Site H and 2% from Site Q. It occurs in small quantities throughout with a slightly higher count in the later transitional contexts.

CALCAREOUS AND GROG TEMPERED HANDMADE WARES (CHM)

E32: This is a reduced handmade fabric with common fine shell and grog inclusions that comprises less than 1% of Site H sherds and 10% from Site Q, where it makes up 26% of sherds from the enclosure. A single form was noted <P282>.

E34: This is a handmade oxidised fabric with a black core it has large inclusions of grog and limestone. It comprises less than 1% from Site F, 8% from Site H and 5% from Site Q where it usually occurs only amongst non-funerary deposits and with the greater proportion balanced towards the later transitional deposits. Storage jars in this fabric are found around the West Midlands, such as at Towcester (Mills and Evans 2016).

E36: This is handmade oxidised grog and limestone tempered fabric with a grey core that comprises less than 1% of sherds from all transitional sites.

E361: This is handmade oxidised grog and limestone tempered poorly levigated fabric. It occurred only at Site H at less than 1% of the assemblage and in the latest deposits only.

GROG AND ORGANIC TEMPERED HANDMADE WITH VOIDS (OMH)

E52: This is an oxidised handmade fabric with organic voids, quartz and grog inclusions. It occurred at less than 1% at the main sites and has been noted only in the latest transitional contexts. This fabric is not known amongst type fabrics in the Eastern Counties and may be a local product.

E53: This is a handmade oxidised fabric with sand and organic temper fabric. It only occurred at Site H at less than 1% of the assemblage from trackways and enclosures, evenly balanced across all periods.

CLASS F: FINEWARES

Finewares other than samian are notable by their absence, which may be because of the early abandonment of the sites. The only fabric in this class was the body sherds of F09: Mica dusted ware from Site H. The rural site at Stoke Mandeville had non samian finewares at 2% of the overall assemblage (Mills and Evans 2014), which included mica dusted wares. This fabric is present at less than 1% and occurred only after the reorganisation of the site. In Bedfordshire F09 was one of the more commonly distributed non samian fineware of this period but all at less that 1% and found at Ruxox (Parminter and Slowikowski 2004),

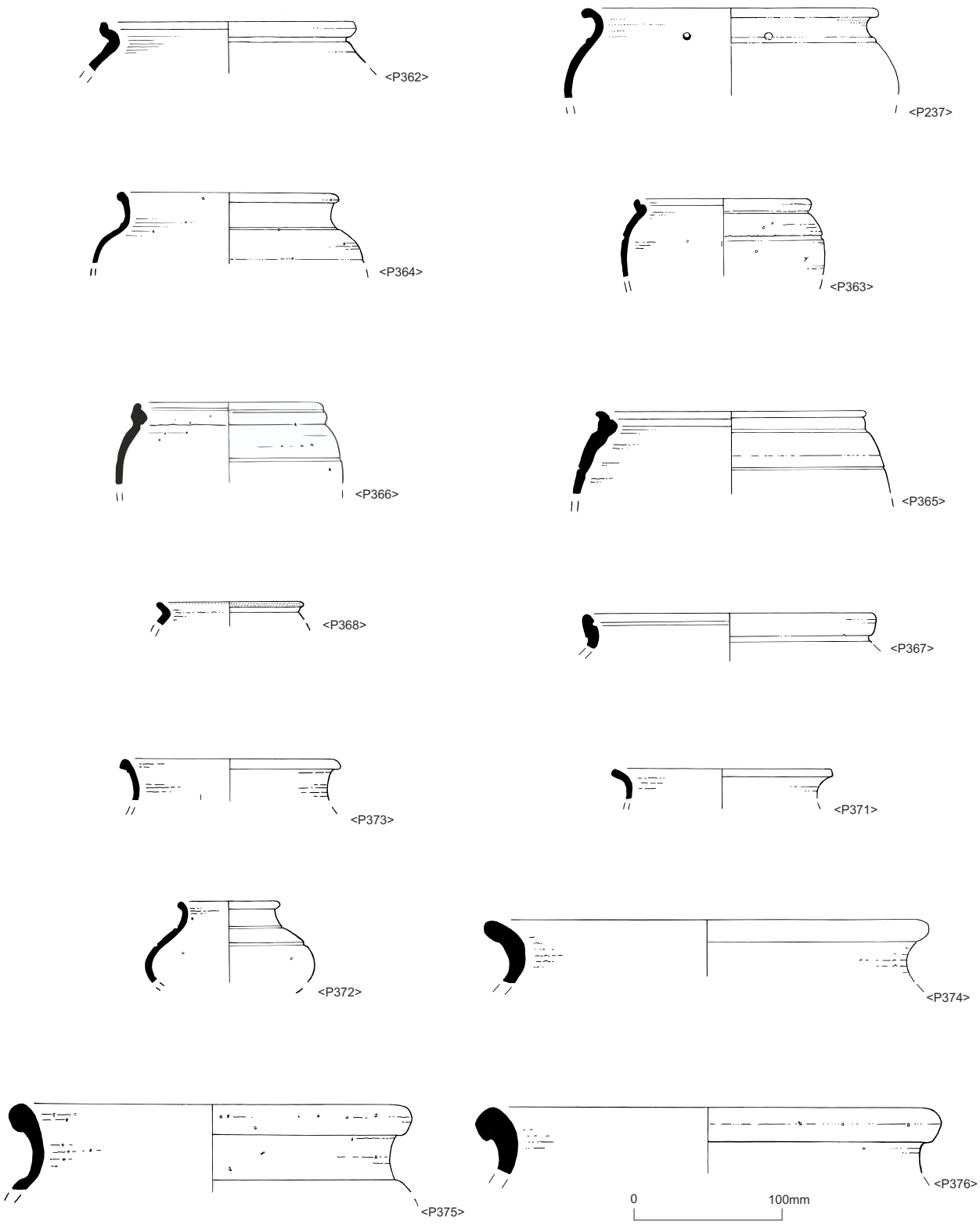


Fig 6.38 Transitional late Iron Age/Roman pottery, Aylesford–Swarling wares

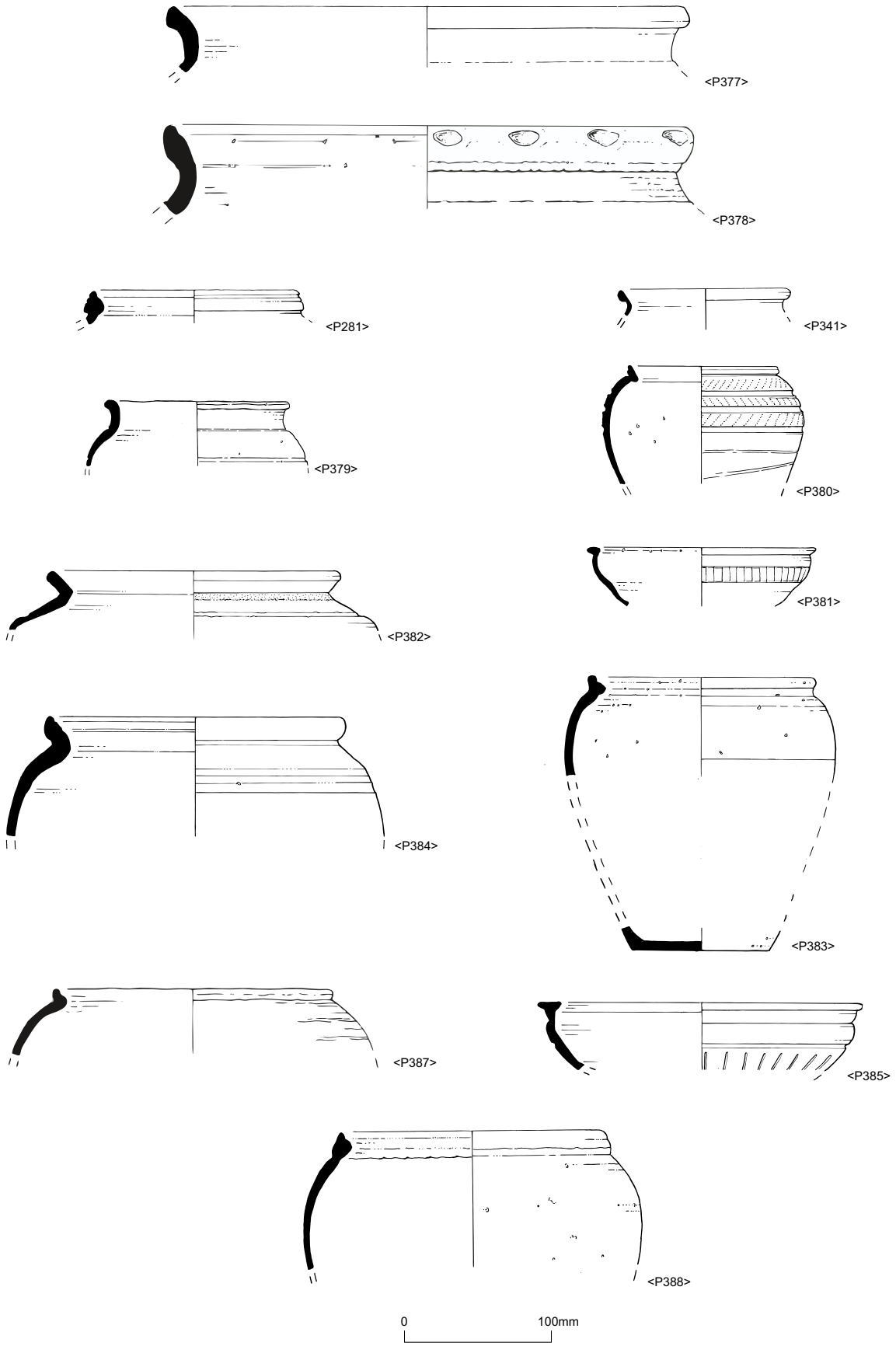


Fig 6.39 Transitional late Iron Age/Roman pottery, further Aylesford–Swarling wares

Marston Vale (Biddulph 2013), Marsh Leys (Wells 2011), Kempston (Parminter and Slowikowski 2004) and West Stagsden (Dawson 2000). Overall Class F vessels have a very sporadic occurrence in the area with highest levels at the cemetery sites of Court Drive (Slowikowski 2010) and Harlington (Dawson 2001) and also tending to increase with time (see Ruxox phase 3; Parminter and Slowikowski 2004). Terra Nigra is only noted in the more southerly sites.

Class M: Mortaria

The mortaria sherds are very few, only came from Site H, and reflect the same pattern as for finewares. The only mortaria were M04 *Verulamium* region fabrics (Tomber and Dore 1998 VER WH). Elsewhere in Bedfordshire mortaria has only been found on a few sites and all at under 1% of the assemblage including at Marsh Leys (Wells 2011), Marston Vale (Biddulph 2013) and A421 sites 4 and 8 (Stansbie 2007).

Class O: Oxidised wares

Oxidised wares comprise less than 1% of fabrics from the Site F cremation cemetery, 3% from the Site H assemblage and 1% of sherds from Site Q. At Site H there is an even split between funerary period features and non-funerary period deposits with a slight rise after the reorganisation of the site, suggesting a trend toward the uptake of Roman styles and fabrics with time. Their presence is noted at Site Q at a low level, consistent with the introduction of these wares. Sites F, H and Q are all on the low side for the county trend with only sandy types occurring in the phase groups.

O01: An oxidised fabric with some moderate sand. It comprises 1% or less across all transitional sites with a slight trend towards the later transitional deposits.

O04: This is an oxidised fabric with abundant coarse sand that makes up 1% of sherds from Site H trackways and enclosures, and 56% from Site P ditches.

O08: This is an oxidised fabric with fine sand inclusions. It occurred only at Site H, making up less than 1% of the overall total, from features after the site reorganisation.

O11: This is an oxidised fabric with common calcareous inclusions. It occurred only at Site H and at less than 1% of the assemblage and after the reorganisation of the site.

O12: This is an oxidised fabric with some coarse sand and some calcareous inclusions. It occurred only at Site H at less than 1% of the assemblage and after the reorganisation of the site.

O14: This is an oxidised fabric with fine sand and some grog. It occurred at Sites F and H at less than 1% of the assemblage in the later transitional deposits.

O31: This is an oxidised fabric with brown surfaces and fine sand inclusions. It occurred at Sites H and Q at less than 1% of these assemblages in later transitional deposits.

O41: This is an oxidised fabric with some ironstone. It only occurred at Site H and at less than 1%, after the site's reorganisation.

O51: This is an early oxidised ware with organic voids and lime inclusions. It comprises less than 1% of the Site H assemblage, and is evenly distributed both before and after the reorganisation of the site.

Class Q: White slipped wares

White slipped fabrics make up 1% of sherds from Site H, all of them after the reorganisation of the site. This is in line with other rural sites in the region, e.g. Stoke Mandeville (Mills and Evans 2014).

Q01: An oxidised white slipped fabric with common sand temper that produced a single notable form.

Q02: An oxidised white slipped fabric with common sand temper and some limestone.

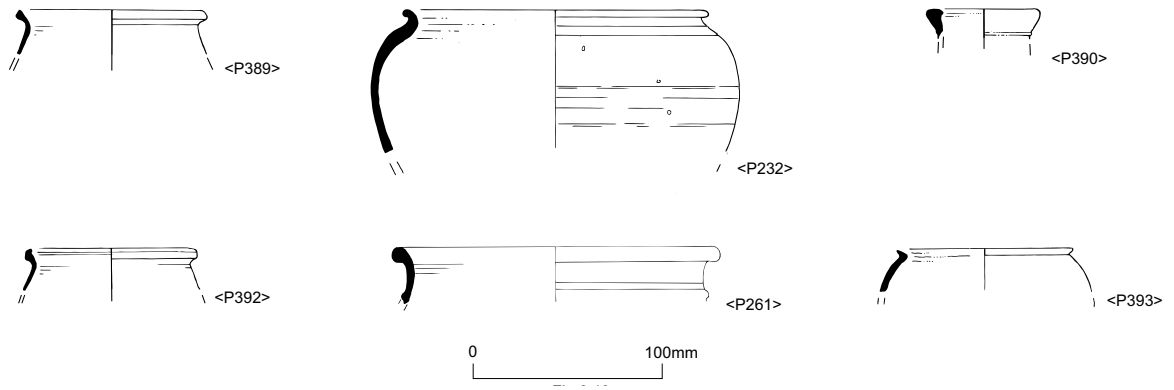


Fig 6.40 Transitional late Iron Age/Roman pottery, oxidised and white slip wares

Q03: An oxidised white slip fabric with a black core and some sand inclusions. A globular beaker was noted.

Q06: An oxidised white slipped fabric with a moderate sand and ironstone inclusions.

Q07: A white slip fabric with moderate pink quartz and red ironstone inclusions.

Class R: Reduced wares

These reduced fabrics make up 2% of sherds from the Site F cremation cemetery, 10% of sherds from Site H and 2% from Site Q. They form 3% of the Site H sherds from earlier transitional features, 8% from features during the use of the funerary enclosure and 13% of features after the site reorganisation. At Site Q they are only noted after the establishment of the enclosure.

These fabrics appear on the sites after the Conquest period. Class R tends to increase with the later sites, as class E material goes out of production in the late 1st century. The larger quantity at Site H is consistent with the site continuing on into the late 1st to early 2nd century AD after supply to Site Q had ceased and the focus on Site F had shifted. It also suggests that the cremation cemetery at Site F is more or less contemporary with the pyre site at Site H.

The sites reported on here are to the lower end of the range for Class R within the county with greater quantity recorded for example along the A421 sites (Stansbie 2007), Biddenham SP9 (Wells 2016) and Marsh Leys (Wells 2011). On the whole the proportions are low for a rural site in the greater region, for instance they comprise 26% of the Stoke Mandeville assemblage (Mills and Evans 2016), which presumably reflects the early abandonment date for the A5–M1 link sites.

Horningsea fabrics (R02 and R04) is only reported here but has rarely been reported elsewhere in Bedfordshire (Evans *et al.* 2017) and the suspicion is that its presence is masked by inclusion with other coarse sandy greywares and blackwares. However it would only be occurring in small quantities at the end of the date range studied here.

Sandy fabrics

R01: This is a grey ware with common sand inclusions of *c.*0.2mm size. It makes up less than 1% of the assemblages across all sites and is slightly more prevalent in later transitional contexts. The functional breakdown of vessels in this fabric is given in Table 6.28, which shows relatively high levels of table wares, such as dishes and bowls, following the reorganisation of ditches and enclosures at Site H.

R011: A greyware with common quartz and organic temper found only at Site H at 1% of the assemblage in the period after its reorganisation.

R02: Horningsea greyware (Tomber and Dore 1998, HOR RE). Limited to the Site H assemblage at 1% after the reorganisation.

R04: Black surface Horningsea fabric. A similar pattern of deposition is shown as for fabric R02.

R05: A reduced fabric with common to abundant fine sand inclusions that follows the same deposition trend for reduced sandy fabrics.

R052: This is a grey ware with common moderate sand of *c.*0.4mm size. It makes up 2% of sherds from the Site F cremation cemetery and 1% at Site H, where it was evenly balanced across all periods and features.

R06: ?Hadham greyware (*ibid*, HAD RE). This occurred at less than 1% at Sites H and Q, occurring in both earlier and later 1st-century AD deposits.

R08: This is a grey ware with common moderate sand and occasional black ironstone. It comprises 1% of

Table 6.28: Vessel forms for reduced ware fabric R01

	Proportions between vessel forms (%)							
	Constricted neck jars	Storage Jars	Jars	Beakers	Bowls	Dishes	Lids	Other forms
Site H, after reorganisation								
MNR, 14 rims	-	-	64.3	-	7.1	28.6	-	-
RE, 1.58	-	-	73.4	-	6.3	20.3	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

sherds from Site H, and appeared in both earlier and later transitional contexts.

R083: A grey ware with common coarse sand and some black ironstone. It comprises 2% of the Site H sherds and less than 1% of those from Site Q. This appears in both earlier and later transitional contexts.

R085: A grey ware with black core and abundant sand. This occurred at low levels across all sites, except Site J, in both earlier and later transitional contexts.

R09: This is a very sandy reduced fabric from Site H, forming less than 1% of sherds after its reorganisation.

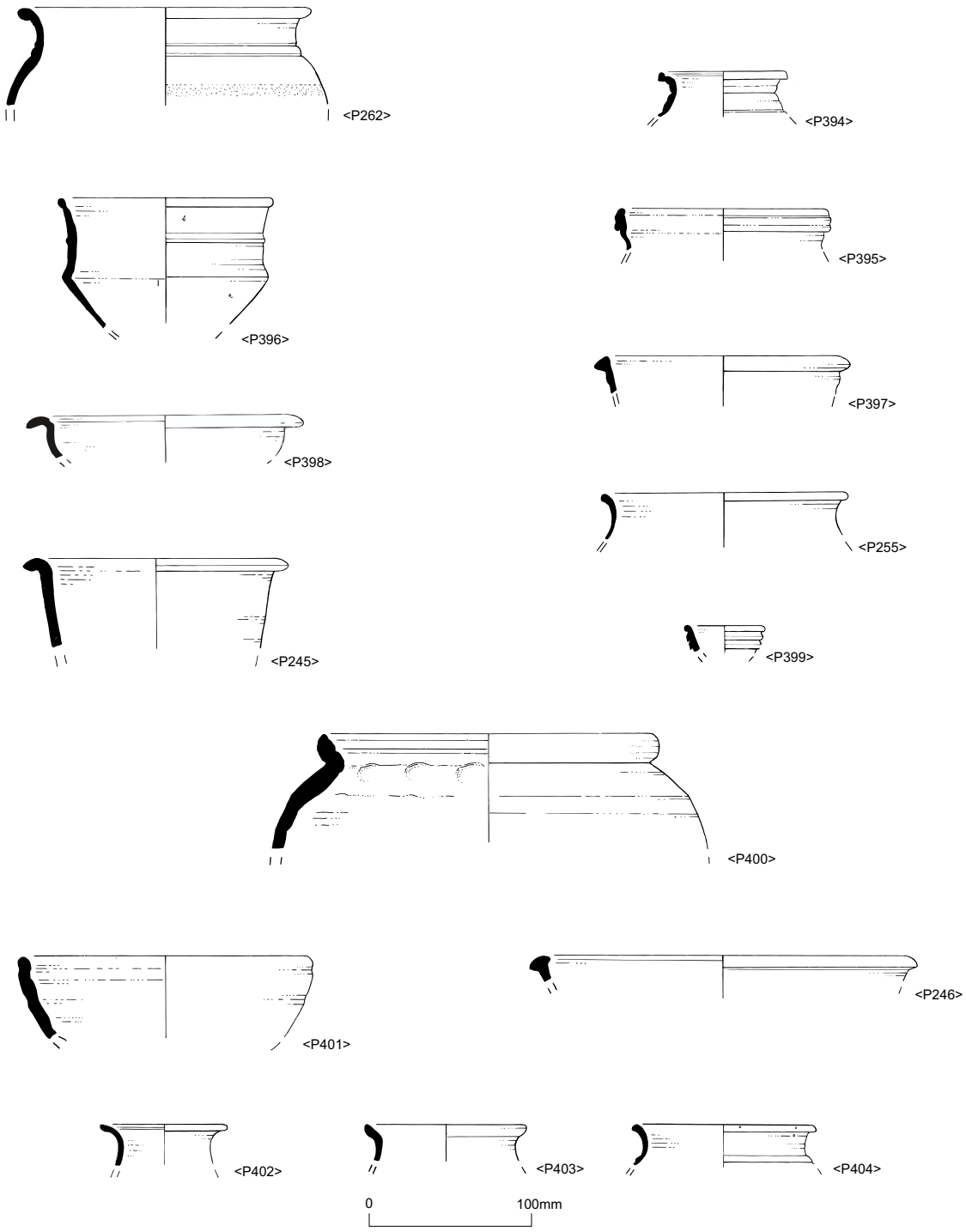


Fig 6.41 Transitional late Iron Age/Roman pottery, reduced wares

CALCAREOUS INCLUSIONS

R11: This is a reduced fabric with fine sand and calcareous inclusions that occurred at less than 1% of the total at the main sites only, tending to be more common in the later transitional contexts.

R111: A sandy greyware with calcareous inclusions (Marney 1989, fabric 9). This was only present at Site H and at less than 1% of sherds across the period.

R131: This is a reduced fabric with abundant sand, it occurred as 1% or fewer sherds from Sites F and Q.

R19: This is a London ware type polished grey ware with some fine calcareous inclusions from Site H, making up less than 1% of sherds after the reorganisation of the trackways and enclosures.

'CLEAN' FABRICS

R22: Nene Valley greyware (Tomber and Dore 1998, LNV RE). These occurred at 1% of sherds from Site F and from Site H after the reorganisation of the site.

R34: A clean fabric with fine sand that makes up less than 1% of the Site H assemblage, following the site reorganisation.

R361: A London type polished greyware with some moderate calcareous inclusions. Only found at Site H at 1% after the reorganisation.

EARLY GREYWARE

R71: This is an early grey ware with common black ironstone inclusions from Site H, which occurred at low levels from non-funerary contexts throughout.

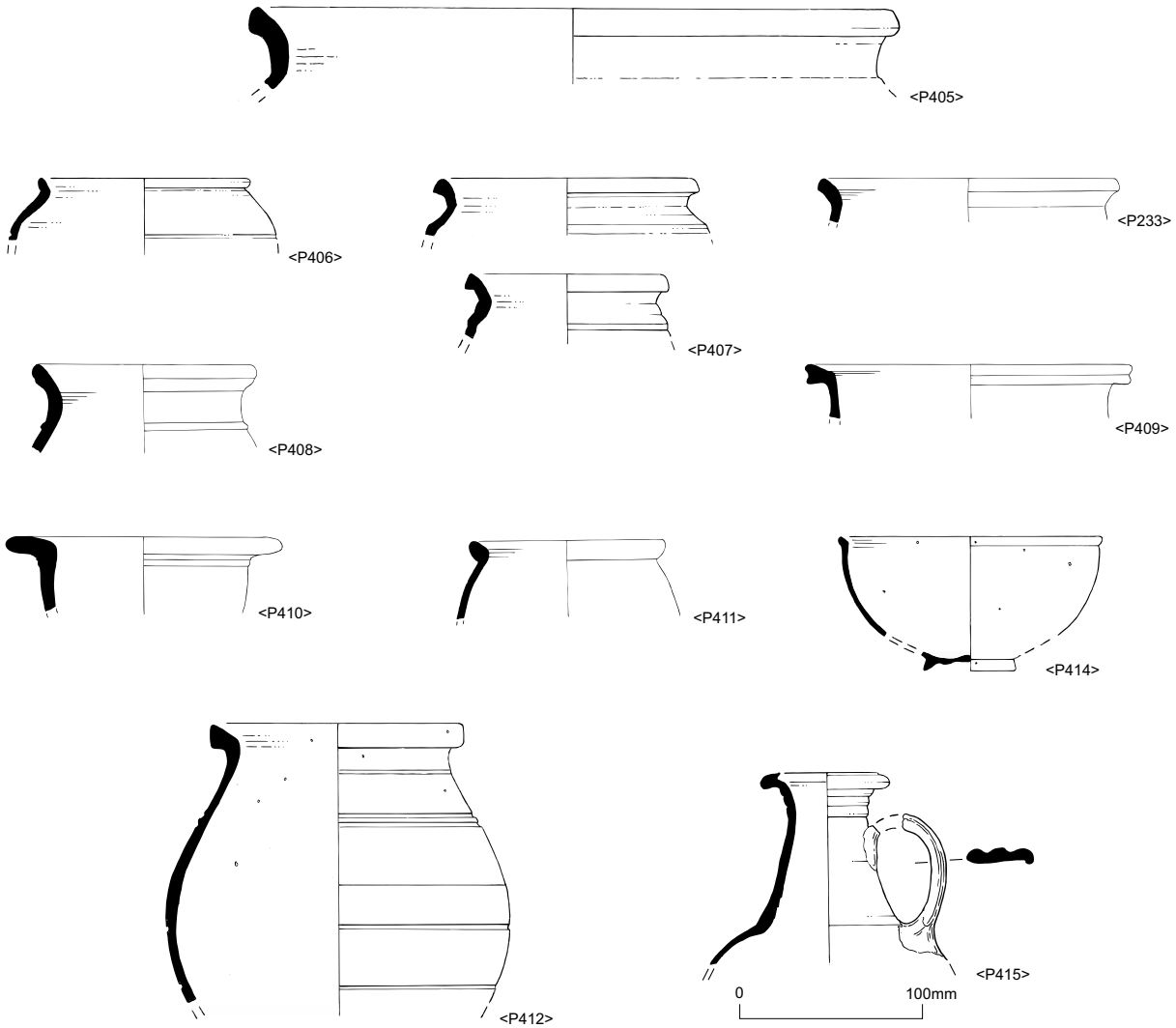


Fig 6.42 Transitional late Iron Age/Roman pottery, reduced wares and a whiteware flagon

CLASS S: SAMIAN

BY GWLADYS MONTEIL

Only two sherds (9g) of samian were recovered from Site Q. One is a South Gaulish dish form Dr18/31 <P283> dating to the Flavian period (AD69–96). The other is later; it consists of a flanged bowl <P284> form Dr38 from Rheinzabern. The rim is without a bead which suggests it is a late example, possibly dating to the 3rd century AD (Bird 1993, 10).

The rest of the assemblage is from Site H, which is sparse with 44 sherds (328g) for a small rim equivalent figure of 22% and a maximum of 27 vessels. The material is relatively fresh although often fragmented and the average weight is *c.*12g. All of the samian occurs in features after the reorganisation of the trackways and ditches, almost half were from ditches, with pits and wells accounting for a quarter of the sherds each.

Class S is better represented than Class F in most sites in the county and occurs in significant quantities on some at cemetery sites (Table 5.14), for example at Harlington (Dawson 2001) but also domestic settlements at Harrold (Brown 1994) and West Stagsden (Dawson 2000). The highest levels, not including cemetery groups are at West Stagsden. The range of samian at sites H and Q are within the normal range of the county.

There are 27 fragments from 17 vessels in South Gaulish samian from La Graufesenque, which play a prominent role in this small assemblage (Table 6.29). Pre-Flavian types are conspicuous by their absence, which is perhaps surprising considering the quantities of transitional pottery recovered from the site.

Most of the identifiable forms are typical of the Flavian period, with an early Flavian cup Dr27 <P285> from the basal fill of ditch H[244] and more fully fledged Flavian types such as a Dr37 <P286> and a small handle from a dish form Dr42 <P287> from the bottom of pit H[302]. There is a Dr36 <P288> from the middle fills of ditch H[244] and a fragment from a beaker <P289> form Dr67 from the base of pit H[240]. A large platter <P290> form Dr18R with sherds from the middle fills of ditch H[156] and the lower fills of ditch H[329], shows evidence of repair on its base. The sherds were found on two different sides of the same enclosure, 52m apart, which is informative towards waste disposal on the site.

The 2nd century AD is characterised by less samian; there are only 17 sherds of Central and East Gaulish material. A little Trajanic (AD98–117) material from Les Martres-de-Veyre came from the bottom of pit H[299], three sherds probably belong to a single vessel (Fig 6.43, <P291>, <P292>, <P293>). Lezoux ware is represented by eight vessels, only four of which can be attributed to form. Two are more typical of the Hadrianic (AD117–138) and early Antonine period (AD138–161); a cup <P432> form Dr27 from the machine investigation of well H[236], and a dish <P244> form

Table 6.29: Samian vessels, Site H, post-reorganisation

Fabrics	**La Graufesenque (S10)**				**Les Martres (S21)**				**Lezoux (S20)**			**East Gaulish (S30)**		
Forms	**Sh**	**Wt(g)**	**RE**	**MNV**	**Sh**	**Wt(g)**	**RE**	**MNV**	**Sh**	**Wt(g)**	**MNV**	**Sh**	**Wt(g)**	**MNV**
DE67	1	2	-	1	-	-	-	-	-	-	-	-	-	-
cup	1	4	-	1	-	-	-	-	-	-	-	-	-	-
dish	6	25	-	2	-	-	-	-	-	-	-	-	-	-
DR18	2	22	8	2	-	-	-	-	-	-	-	-	-	-
DR18/31R	-	-	-	-	-	-	-	-	1	4	1	-	-	-
DR18R	7	155	-	2?	-	-	-	-	-	-	-	-	-	-
DR27	3	11	5	2	-	-	-	-	5	9	1	-	-	-
DR27g	1	11	-	1	-	-	-	-	-	-	-	-	-	-
DR33	-	-	-	-	-	-	-	-	1	4	1	-	-	-
DR36	1	7	-	1	-	-	-	-	-	-	-	-	-	-
DR37	1	2	2	1	3	18	7	1	-	-	-	1	13	1
DR38	-	-	-	-	-	-	-	-	2	22	1	-	-	-
DR42	1	2	-	1	-	-	-	-	-	-	-	-	-	-
unident.	3	7	-	3	-	-	-	-	4	10	4	-	-	-
Totals	**27**	**248**	**15**	**17**	**3**	**18**	**7**	**1**	**13**	**49**	**8**	**1**	**13**	**1**

Key: Sh = Sherd count, Wt = Weight, RE = Rim Equivalent, MNV = Minimum Number of Vessels

Dr18/31R from ditch H[276]. The other two forms are probably later Antonine in date, a Dr38 with a stamp (Fig 6.43, <P250>) and a Dr33 <P294>. Finally, a single decorated bowl of a boxer from Rheinzabern in East Gaul completes the group (Fig 6.43, <P295>).

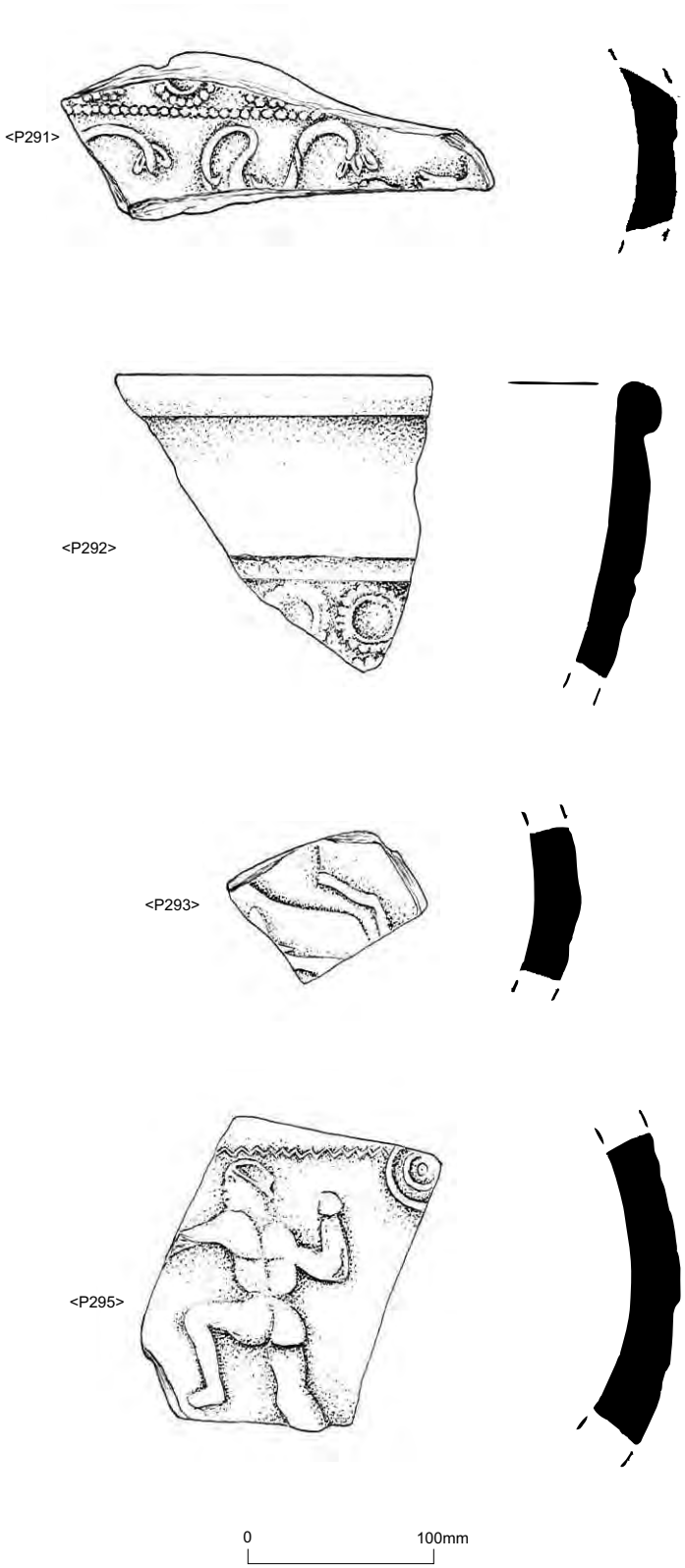


Fig 6.43 Samian stamps and decorated samian pottery

CLASS W: WHITEWARES

Whitewares make up 13% of sherds from the Site F cremation cemetery, 5% of sherds from Site H and 8% from Site Q. They comprise less than 1% of pottery from Site H before its reorganisation and 5% afterwards. They only occur at Site Q after the establishment of the enclosure.

Class W tends to be higher at sites to the south of the county. The occurrence at Site Q Phase 1b at 8% and Site H Phase 4 is on the high side, with an unusually high level of north Gaulish whiteware from the latter at 24%. High levels of material in this class are also noted at the cemetery groups of Court Drive at 9% (Slowikowski 2010) and Harlington at 15% (Dawson 2001) which underlies the selection of this class for grave goods as at Site H.

The rural site at Stoke Mandeville had 5% of its assemblage as whitewares (Mills and Evans 2016), whereas the Towcester cemetery had 6% in this fabric (*ibid*). The high levels at Site F reflect the use of whiteware flagons in the cremation cemetery in particular and more generally in the 1st century AD.

W01: This is a whiteware with some red ironstone that makes up less than 1% of sherds from Site H and 4% from Site Q, which occur only in the later contexts.

W03: This is a whiteware with common translucent quartz that only occurred at Site H after the trackways and enclosures were reorganised.

W04: Nene valley whiteware (Tomber and Dore 1998, LNV WH). This occurred at less than 1% of sherds, only at Site H and in its latest contexts.

W05: *Verulamium* region whiteware (*ibid*, VER WH). This comprises 2% of sherds from Site H, with the majority in the later contexts.

W08: This is a whiteware with a grey core and abundant finer sand that makes up less than 1% of the Site H assemblage, and formed 0.2% of sherds from the latest contexts.

W16: North Gaulish whiteware (*ibid*, NOG WH). This makes up 13% of sherds from the Site F cremation cemetery, and 2% from Site H where less than 1% of sherds were from features after the reorganisation, but a large component were residual in Saxon graves.

W23: A buff whiteware with find sand and some silver mica that made up less than 1% of sherds from Site H and in the latest contexts.

FUNCTION AND FINEWARE

The breakdown for vessel forms between sites is shown in Table 6.30. Jars are more abundant at Site Q and Site H than at the Site F cremation cemetery, with greater range in table wares, dishes and bowls, appearing at Site H. The ratio of jars to table wares (dishes and bowls) is within the range for basic rural sites, although there are higher levels of table wares at Site H perhaps suggesting a relatively higher status (Evans 2005, fig 5). Site Q is similar to a lesser degree, but its early cessation is clear from the restricted range of forms. Northern and southern areas of Site H are compared in Table 6.31. This clearly shows a different range to the north with much lower jar and higher table ware figures compared to the southern area. The mortaria are, however, from the southern area and there are more drinking vessels and liquid containers from the southern end of the site. The high level of jars, flagons and the reasonably common beakers from the southern area probably reflects the presence of the funerary enclosure and pyre site as such vessels often found as grave goods.

The breakdown by period is provided for MNR and RE respectively. This clearly shows the increasing Romanising tendency that accompanied the reorganisation of the site with the quantity of jars and beakers dropping markedly whilst table wares increased (Millett 1980; Evans 1993).

The groups from funerary contexts are too small to produce reliable data alone, and their data occurs alongside the activity in the period of the 1st centuries BC–AD. The north and south sides of the site both show a lessening of jars in the assemblage, although dishes and bowls were markedly more important following the reorganisation in the north, and drinking vessels and liquid pourers were more important in the southern area at this time.

The breakdown of vessel function for Site Q is shown in Table 6.32 where 84.5% of the forms were jars, including storage jars, and 15.5% were table wares. Meaningful analyses is somewhat hampered by the low levels of rims overall, although it is interesting to note the difference in storage jars at the beginning and abandonment of the enclosures lifespan, as well as the absence of bowls in its beginning as it may indicate a shifting in function for this area

This predominance of jars from Site Q may also reflect the slightly earlier cessation date of this site, before the increasingly Roman styles became popular.

BURNING

Scorching on the vessels from Site H is fairly high at 13.6% by sherd count and 19.3% by MNR (Table 6.33). There is much more evidence of burning on the material from the southern part of the site, at 25.5% by sherd count, which is coincidental with the location of the pyre site. In the northern area this level is at 12.4% by sherd count. The change in burning levels by period shows a rise by both sherd count and the minimum

Table 6.30: Functional breakdown of vessel forms overall by site

	Proportions between vessel forms (%)										
	Flagons	**Constricted neck jars**	**Storage Jars**	**Jars**	**Beakers**	**Cups**	**Mortaria**	**Bowls**	**Dishes**	**Lids**	**Other forms**
Site F, cremation cemetery											
MNR, 21 rims	-	-	-	61.8	28.6	-	-	4.8	4.8	-	-
RE, 6.87	-	-	-	51.2	33.5	-	-	0.7	14.6	-	-
Site H, all periods											
MNR, 239 rims	2.1	2.5	6.7	61.2	3.8	0.4	0.8	10.0	10.9	0.8	0.8
RE, 32.25	3.6	3.9	5.0	65.8	5.2	0.2	0.8	6.7	8.1	0.3	0.4
Site Q, all periods											
MNR, 45 rims	-	-	6.7	77.8	-	-	-	4.4	11.1	-	-
RE, 5.00	-	-	8.8	73.8	-	-	-	4.0	13.4	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

Table 6.31: Comparison of vessel forms, Site H

	Proportions between vessel forms (%)										
	Flagons	Constricted neck jars	Storage jars	Jars	Beakers	Cups	Mortaria	Bowls	Dishes	Lids	Other forms
Site H, whole site, all periods											
MNR, 239 rims	2.1	2.5	6.7	61.2	3.8	0.4	0.8	10.0	10.9	0.8	0.8
RE, 32.25	3.6	3.9	5.0	65.8	5.2	0.2	0.8	6.7	8.1	0.3	0.4
whole site, initial trackways and enclosures											
MNR, 47 rims	-	2.1	17.0	70.2	4.3	-	-	4.3	2.1	-	-
RE, 5.43	-	2.0	12.7	75.3	4.2	-	-	5.2	0.6	-	-
whole site, after reorganisation											
MNR, 179 rims	2.8	2.8	4.5	58.1	3.4	0.6	1.1	11.7	12.8	1.1	1.1
RE, 24.64	4.8	4.6	3.9	62.8	5.3	0.2	1.0	7.3	9.1	0.5	0.5
north side, all periods											
MNR, 192 rims	1.6	3.1	6.3	58.9	3.1	0.5	-	12.0	12.5	1.0	1.0
RE, 25.87	3.1	4.8	4.9	66.2	3.3	0.2	-	8.1	8.5	0.4	0.5
north side, initial trackways and enclosures											
MNR, 22 rims	-	4.5	18.2	63.8	4.5	-	-	4.5	4.5	-	-
RE, 2.74	-	4.0	12.8	68.7	5.4	-	-	8.0	1.1	-	-
north side, after reorganisation											
MNR, 167 rims	1.8	3.0	4.8	58.6	3.0	0.6	-	12.6	13.2	1.2	1.2
RE, 22.94	3.6	5.0	4.1	65.9	3.0	0.2	-	7.9	9.3	0.5	0.5
south side, all periods											
MNR, 41 rims	4.9	-	9.8	70.7	4.9	-	4.9	2.4	2.4	-	-
RE, 5.58	6.8	-	6.1	67.7	12.0	-	4.5	1.1	1.8	-	-
south side, initial trackways and enclosures											
MNR, 25 rims	-	-	16.0	76.0	4.0	-	-	4.0	-	-	-
RE, 2.69	-	-	12.6	82.2	3.0	-	-	2.2	-	-	-
south side, after reorganisation											
MNR, 12 rims	16.7	-	-	50.0	8.3	-	16.7	-	8.3	-	-
RE, 1.70	22.4	-	-	22.4	34.6		14.7	-	5.9	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

number of rims during the fuelling of the pyres and a decline afterwards, although higher levels of burning on rims can be seen from domestic cooking in the latest contexts from the northern part of the site.

The level of burning for Site Q is at 6% and is much more apparent during the early use of the enclosure.

CROSS-JOINING SHERDS

Cross joins between rims were checked in the assemblages and only occurred at Site H; there are five instances shown in Table 6.34, including a samian platter. Three of these cross-joins, including the samian, come from contexts that were set apart by over

Table 6.32: Comparison of vessel forms, Site Q

	Proportions between vessel forms (%)										
	Flagons	Constricted neck jars	Storage Jars	Jars	Beakers	Cups	Mortaria	Bowls	Dishes	Lids	Other forms
Site Q, all periods											
MNR, 45 rims	-	-	6.7	77.8	-	-	-	4.4	11.1	-	-
RE, 5.00	-	-	8.8	73.8	-	-	-	4.0	13.4	-	-
enclosure established											
MNR, 18 rims	-	-	11.1	77.8	-	-	-	-	11.1	-	-
RE, 2.54	-	-	11.8	79.5	-	-	-	-	8.7	-	-
late use of enclosure											
MNR, 19 rims	-	-	5.3	78.9	-	-	-	5.3	10.5	-	-
RE, 1.87	-	-	7.5	64.7	-	-	-	6.4	21.4	-	-

Key: MNR = Minimum Number of Rims, RE = Rim Equivalent

50m and were found on three sides of the same enclosure, indicating that this material had been carted in to fill the enclosure ditch from a midden nearby.

CATALOGUE OF NOTABLE FORMS WITH PUBLISHED PARALLELS

The following catalogue of sherds have comparable published examples or are well known forms of interest within the archive. They are presented in order of fabric type but are not illustrated. Samian stamps and decorated samian are listed separately at the end.

B01 A black burnished flange rim bowl with triangular sectioned flange. <P248>, H[280].

C11 An oxidised wheelmade jar in Harold shell tempered ware with a large triangular sectioned rim (Marney 1989, fig 18, no. 6). <P296>, H[272].

C11 An oxidised bowl with a thickening simple rim in Harold shell tempered ware (Brown 1994, fig 26, nos 94-96). <P297>, Q[1191].

Table 6.33: Proportions of pottery showing evidence of soot and burning

Sooting Type	No. of sherds (%)	Sherds by MNR (%)
Site F, cremation cemetery, 1198 sherds, MNR 21		
Burning, general	5.0	-
Site H, all periods, 3344 sherds, MNR 239		
Burning, general	13.6	19.3
Burning, post-depositional	0.1	0.4
Sooting, external	0.4	1.7
Site H, initial trackways and enclosures, 779 sherds, MNR 47		
Burning - general	19.6	29.8
Burning - post depositional	0.3	-
Sooting (external)	1.4	6.4
Site H, funerary enclosure and features, 211 sherds, MNR 6		
Burning - general	16.1	16.7
Site H, after reorganisation, 1945 sherds, MNR 179		
Burning - general	13.7	17.3
Burning - post depositional	0.1	0.6
Sooting (external)	0.1	0.6
Site Q, all periods, 856 sherds, MNR 45		
Burning, general	6.1	22.2
Site Q, enclosure established, 388 sherds, MNR 18		
Burning - general	11.6	33.3
Site Q, late use of enclosure, 195 sherds, MNR 19		
Burning - general	3.6	21.1

Key: MNR = Minimum Number of Rims

Table 6.34: Cross-joining sherds, Site H

Sherd name	Feature	Context type		Feature	Context type
E141/7	H[134]	Ditch	joins	H[156]	Ditch
R052/1	H[160]	Ditch		H[160]	Ditch
E34/4	H[164]	Ditch		H[167]	Pit
C11/6	H[240]	Pit		H[244]	Ditch
S10/Dr18R	H[156]	Ditch		H[329]	Ditch

C11 An oxidised wheelmade necked jar with horizontal flanged rim perhaps in Harold shell tempered ware (ibid, fig 24, no. 9). <P298>, Q[1169].

C11 An oxidised wheelmade channel rim jar in Harold shell tempered ware (ibid, nos 102-108). <P299>, H[271].

C11 An oxidised wheelmade necked storage jar with a triangular sectioned rim in Harold shell tempered ware (ibid, fig 26, nos 94-96). <P300>, H[237].

C11 Cross-join, an oxidised bowl with a large triangular section rim in Harold shell tempered ware (ibid, fig 26, nos 94-96). <P301>, H[242], H[246].

E01 A wheelmade oxidised grog tempered jar with everted out curving and bead rim and cordon above shoulder (Thompson 1982, B3-6, no.1). <P236>, Q[1191].

E01 A wheelmade oxidised grog tempered bowl with a triangular sectioned undercut flange rim (ibid, B1-1, no. 10). <P278>, H[311].

E01 A wheelmade oxidised grog tempered jar with everted out curving triangular section rim (ibid, B3-6, no.1). <P302>, Q[1191].

E01 A wheelmade oxidised grog tempered necked jar with two heavy cordons on shoulder and a straight everted rising rim (ibid, B3-6, no. 1). <P303>, H[334].

E11 A wheelmade sand tempered small necked jar with everted outward curving beaded rim (ibid, B1-1, no. 3). <P304>, Q[907].

E11 A globular jar with stubby slightly everted straightened rim with diagonal rows comb stamp impressions (ibid, C2-3). <P305>, H[245].

E11 A handmade oxidised grog tempered bowl with an outward curving wall, grooved on the bead rim (ibid, D3-2). <P306>, H[245].

E11 A handmade oxidised grog tempered CAM24 copy platter. <P307>, H[256].

E13 A necked jar an everted rising beaded rim (ibid, B1-1). <P253>, H[234].

E13 A constricted necked jar with heavy shoulder cordon and outward curving rising rim (ibid, B3-8, no. 1). <P308>, H[245].

E13 A necked jar with an everted rising tip (ibid, B3-4, no. 2). <P309>, H[245].

E13 A globular jar with two cordons on shoulder and an everted rising rim (ibid, B3-5, no. 21). <P310>, H[120].

E13 A jar with an everted necked triangular sectioned lid seated rim (ibid, C5-1, no. 5). <P311>, Q[182].

E13 A copy of a CAM21 platter. <P312>, H[246].

E13 A copy of a CAM24 platter. <P313>, H[247].

E14 A necked jar with beaded rim (ibid, B1-1, no. 21). <P238>, H[651].

E14 A necked jar with everted sub-beaded rim (ibid, B1-1, no. 3). <P273>, Q[1191].

E14 A jar with an everted rising rim (ibid, B1-1, no. 6). <P314>, H[162].

E14 A necked jar with a beaded rising rim (ibid, B1-1, nos 2-3). <P315>, H[338].

E14 A necked jar with fairly horizontal rim, beaded at tip (ibid, B1-1, no. 27). <P316>, H[246].

E14 A necked jar with a down sloping beaded undercut rim (ibid, B1-1, no. 22). <P317>, H[247].

E14 A jar or bowl with a heavily cordoned shoulder and a slightly everted rim (ibid, B3-1). <P318>, H[242].

E14 A cordon shouldered necked jar with a beaded rising rim (ibid, B3-1, no. 3). <P319>, H[245].

E14 A necked jar with everted outward curving beaded rim and cordon below (ibid, B3-1, no. 19). <P320>, Q[1209].

E14 A jar or constricted necked jar with cordon shoulder and undercut beaded rim (ibid, B3-2, no. 11). <P321>, H[223].

E14 A globular jar with stubby everted grooved rim with opposing diagonal combing (ibid, B1-1, no. 1). <P322>, H[133].

E14 A jar with triangular sectioned internally beaded rim (ibid, C4). <P323>, H[334].

E14 A bowl with an out sloping wall and beaded rim (ibid, G2-1). <P324>, H[319].

E14 An odd bowl with an outward curving rim flattened on top, possibly G2-5 (ibid, G2-5, no. 1). <P325>, H[246].

E14 A bowl with beaded rim and cordon on girth (ibid, G2-5, no. 1). <P326>, Q[1195].

E14 A CAM23 copy platter. <P327>, H[311].

E14 A CAM4 form dish or platter rim. <P328>, H[334].

E14 A lid rim fragment with a straight out sloping wall and internal triangular section bead (ibid, L1, no. 2). <P329>, H[333].

E16 A jar with everted beaded rim (ibid, B1-1, no. 3). <P330>, H[243].

E16 A medium mouthed jar with everted rising beaded rim with notched cordon on shoulder (ibid, B1-3). <P331>, H[245].

E16 A jar with grooved shoulder and everted outward curving rim (ibid, B1-1, No. 1). <P332>, Q[360].

E16 A barrel jar with a simple rim (ibid, B5-1, no. 4). <P333>, H[272].

E16 A jar with straight outward curving wall and beaded undercut rim (ibid, C1-12, no. 12). <P334>, H[133].

E21 A storage jar with outward curving everted rim burnished (ibid, C6-1, no. 1). <P335>, Q[1209].

E21 A CAM24 copy platter., <P336>, Q[1169].

E21 A jar with a straight everted beaded rim with slight lid seated jar (ibid, C5-1 to 5). <P337>, H[271].

E21 A platter black walled grog tempered CAM24 form (ibid, G1-2). <P338>, H[242].

E24 A necked jar with an everted rising fairly straight rim (ibid, B1-1, no. 1). <P279> H[168].

E32 A jar with an everted outward curving rim with slight lid seating (ibid, C5-1, no. 10). <P282>, Q[1195].

E34 A necked storage jar with a thickened beaded rim (ibid, C6-1, no. 16). <P339>, H[245].

E34 A storage jar with a strongly everted rim and cordon on shoulder (ibid, C6-2.ig). <P340>, Q[1122].

E34 A large necked storage jar or even dolium with everted rising thickened rim (ibid, C6-1, no. 16). <P341>, H[245].

E361 A storage jar with everted triangular section bead rim (ibid, C6-1, no. 1). <P342>, H[280].

E52 A globular bowl or dish with a flat horizontal rim and curving walls (ibid, D3-1). <P343>, H[237].

E53 A necked jar with beaded undercut rim (ibid, B1-1, no. 3). <P344>, H[246].

E53 A jar with an everted rising slightly outward curving simple rim (ibid, B1-1, no. 10). <P345>, H[757].

E121 A channel rim jar (ibid, C5-1, no. 6). <P235>, H[750].

E121 A sand and grog tempered handmade platter of CAM24 form. <P267>, Q[182].

E121 A globular jar with a stubby tapering triangular section rim in a sandy handmade fabric (ibid, C2-2, no. 5). <P346>, H[223].

E141 A jar with a simple thinning rim (ibid, C3, no. 4). <P266>, Q[807].

E141 A necked jar with everted rising slightly thickening rim (ibid, B1-1, no. 4). <P347>, H[374].

E141 A necked jar with heavily beaded slightly undercut rim (ibid, B1-1, no. 4). <P348>, H[245].

E141 A jar with everted outward curving rim groove under tip (ibid, B1-1). <P349>, H[245].

E141 A globular jar with a slightly everted rim with groove below (ibid, C3). <P350>, Q[1191].

E141 A storage jar with an everted rim (ibid, C6-1, no. 1). <P351>, Q[1191].

E141 A tall necked beaker with a bead rim (ibid, E3-2, no. 2). <P352>, H[223].

E141 A bowl with an internally beaded rim and incurving walls with hand burnishing (ibid, G2-2, no. 1). <P353>, H[223].

E211 A thin walled jar with a tapering simple rim (ibid, B1-1, no. 107). <P234>, H[353].

E211 A jar with everted rising thickening rim (ibid, B1-1, no. 6). <P354>, H[757].

E211 A jar with an everted rising sub bead rim (ibid, B1-1). <P355>, H[757].

E211 A lid with a squared rim (ibid, L4, no. 3). <P356>, H[245].

M04 Verulamium region whiteware spout from a hooked flange mortarium (Davies et al. 1994, fig 39, no. 207), AD55 — early 2nd century. <P241>, H[561].

M04 Verulamium whiteware mortaria with a high bead above a hooked rim and edge of spout, sooting around spout (ibid, fig 39, no. 207), AD70 — early 2nd century. <P357>, H[586].

O01 An oxidised Curle 11 flange bowl copy. <P254>, H[234].

R02 A Horningsea greyware jar with an everted thickened slightly beaded rim (Evans et al. 2017, J10.9). <P249>, H[247].

R02 A Horningsea greyware bowl with a flange rim (ibid, B3.1). <P358>, H[157].

R06 A common fine sandy grey ware indented beaker with an outward curving rising rim (ibid, fig 8, no. 36, fb 3k). <P247>, H[271].

R06 A common fine sandy grey ware small globular jar or beaker with an everted tapering stubby rim (Marney 1989, fig 28, no. 14, fb 3k). <P359>, H[495].

R111 A sandy grey ware with calcareous inclusions bowl dish with a triangular sectioned rim (ibid, fig 29, nos 6-9). <P251>, H[172].

W05 A Verulamium region whiteware flagon with a ring neck and prominent upper bead (Davies *et al.* 1994, 148-150). <P260>, H[235].

W05 A Verulamium whiteware bowl with a cordoned collared rim (ibid, iva7 187-198). <P360>, H[205].

Samian Stamps
by Gwladys Monteil

Only one samian stamp was found (not illustrated).

<P250> Partial stamp, reading:] I V [, what remains of this stamp consists of only two letters but their size, shape and the spacing between them fit die 6a by Lezoux potter aestivus (Hartley and Dickinson 2008, 87), AD155–195. Lezoux, Dr38, H[334].

Decorated samian catalogue
by Gwladys Monteil

The following catalogue lists and identifies the decorated pieces recovered from the site that could be attributed to individual potters or groups of potters (Fig 6.43, <P280-2> and <P284>).

<P291> Rim sherd, 8g. The use of small beaded medallions (Rogers 1974, C293), in lieu of ovolo is typical of anonymous potter X-12 (Stanfield and Simpson 1990, pl 40, nos 468 and 471), AD100–130. Les Martres-de-Veyre, Dr37, H[298].

<P292> Body sherd, 6g. Possibly the same vessel as <P280> but burnt black, same small beaded medallions in lieu of ovolo but here the top of the decoration has survived. The S-shaped motif is also known for anonymous potter X-12 (*ibid*, pl 40, no. 469). The trifid leaf motif looks like the one found on top of G220 (Rogers 1974). Dates to AD100–130. Les Martres-de-Veyre, Dr37, H[298].

<P293> Body sherd, 4g. Possibly the same vessel as <P280-1>. The decoration is even more partial than the other two fragments but it shares a similar motif, the S-shaped decoration which is here associated with the back legs of an animal, possibly a deer. Dates to AD100–130. Les Martres-de-Veyre, Dr37, H[298].

<P295> Body sherd, 13g. Wavy border, boxer M191, small triple circle medallion (Oswald 1936, O129). All of the motifs in a similar arrangement are on a bowl attributed to Rheinzabern potter Cobnertus iv (Ricken and Fischer 1963, Taf 21, no. 12F), AD155–180. Rheinzabern, Dr37, H[247].

Though small, this samian assemblage contains a range of forms and fabrics dating from the Flavian period to the mid 2nd century AD. South Gaulish samian from La Graufesenque forms the largest sub-group. The absence of pre-Flavian types suggests that Samian was not part of the repertoire used on Site H in the early part of the 1st century AD. By the early Flavian period however South Gaulish samian was acquired albeit in relatively small quantities, a typical trait for rural sites in Britain (Willis 2005).

Quantities of 2nd-century AD samian material are lower. The Rheinzabern's bowl <P295> and if identified correctly the Lezoux stamp <P250> suggest that activity on site carried on until at least AD155 but probably not much beyond. Samian forms characteristic of a site occupied in the second half of the 2nd century are largely absent from the assemblage.

The group is too small to attempt any kind of statistical or functional analysis but the forms represented and the emphasis on plain ware generally fit with typical samian functional profiles for rural sites in Britain (Willis 2005, section 8.2.6). The presence of a vessel with evidence of repair within such a small assemblage also fits with this group originating from a rural site and is in keeping with other published evidence from Britain (Willis 2005, table 73)

Catalogue of illustrated pottery (Figs 6.37 – 6.43)

The following catalogue of illustrated sherds are not referenced to known published parallels and have been selected as representative examples contributing to the wider understanding of ceramics of the period, they are presented in order of fabric type. Illustrated pottery from the funerary assemblages is presented separately in Chapter 5.

<P230> A reduced wheelmade channel rim jar in Harold shell tempered ware with horizontal combing on exterior of jar. C12, H[282].

<P276> A handmade oxidised fine shell tempered channel rim jar. C13, H[245].

<P361> An oxidised possible handmade Harold shell tempered jar with an everted rising tapering rim. C14, H[271].

<P231> A reduced handmade shell tempered jar with a slightly everted tapering rim. C15, H[161].

<P277> An oxidised handmade shell tempered bowl with a grooved flange rim. C17, H[339].

<P237> A wheelmade oxidised grog tempered jar with everted out curving and bead rim having a cordon above shoulder. There is a hole drilled in shoulder. E01, Q[1191].

<P362> A channel rim jar. E13, H[247].

<P363> A channel rim jar. E13, H[245].

<P364> A necked jar with outward curving beaded thickened beaded rim. E14, H[237].

<P365> A channel rim jar. E14, H[740].

<P366> A jar with a triangular sectioned rim internally and externally grooved. E14, H[245].

<P367> A channel rim type jar with a straight everted lid seating rim. E14, H[272].

<P368> A beaker with a sub cornice rim. E14, H[120].
<P371> A jar with an outward curving rising rim. E16, H[220].
<P372> A constricted-necked jar with everted outward curving rising rim with grooves on the base of the neck and above girth. E21, H[247].
<P373> A necked jar with everted outward curving beaded rim. E21, H[245].
<P341> A large necked storage jar or even dolium with everted rising thickened rim. E34, H[245].
<P374> A storage jar with an everted rising rim. E34, H[600].
<P375> Cross-join, a storage jar with an everted slightly beaded rim. E34, H[162], H[166].
<P376> A storage jar with everted undercut beaded rim. E34, H[338].
<P377> A storage jar with an everted rising rim. E34, H[120].
<P378> A necked storage jar with beaded lentoid lid seated rim. E34, H[288].
<P379> A necked jar with slightly beaded rim. E36, H[245].
<P281> Channel rim jar. E131, H[245].
<P380> A jar with a triangular section grooved rim with comb impressed line decoration. E141, H[154].
<P381> A jar with stubby everted bead like rim. E141, H[334].
<P382> A carinated jar with straight everted rim. E141, H[298].
<P383> A channel rim jar. E141, H[133].
<P384> A channel rim jar. E141, H[246].
<P385> A necked bowl with pushed down flat flange rim. E141, H[245].
<P387> A channel rim jar. E211, H[245].
<P388> A channel rim jar. E211, H[245].
<P389> An oxidised butt beaker. O01, H[311].
<P390> A fine sandy oxidised flagon with a triangular section rim. O08, H[298].
<P232> An early oxidised ware globular jar with a bead rim. O51, H[133].
<P392> Probably a Butt beaker with an everted beaded rim. O51, H[250].
<P261> A white slipped oxidised necked jar with an everted rim with triangular section beaded tip. Q01, H[235].
<P393> A white slipped oxidised globular beaker with a sub cornice rim. Q03, H[237].
<P262> A sandy greyware necked jar with rising beaded rim cordoned at the shoulder. R01, H[304].
<P394> A sandy greyware necked jar with everted rising squared rim. R01, H[298].
<P395> A sandy greyware necked jar with a grooved collared rim. R01, H[621].
<P396> A sandy greyware carinated bowl with a vertical wall cordon in the middle and bead rim. R01, H[245].
<P397> A dish with a triangular section bead rim. R01, H[271].
<P398> A segmental dish with an everted rising outward curving rim. R01, H[311].
<P255> A common fine sandy grey ware jar with an everted outward curving rising rim. R06, H[338].
<P245> A flange rim bowl. R08, H[280].
<P399> A greyware flagon with a grooved collared rim. R08, H[621].
<P400> A greyware globular jar with everted thickening rim with groove on inner face, related to channel rim jars. R08, H[242].
<P401> A greyware simple rim dish. R08, H[311].
<P402> A sandy greyware constricted neck jar with an everted rising straightened rim. R11, H[328].
<P403> A jar with an everted rising rim. R19, H[245].
<P246> An unadorned greyware bowl with a beaded rim. R34, H[205].
<P404> A sandy greyware necked jar with an everted rising rim. R052, H[158].
<P405> A sandy greyware simple rim dish. R052, H[157].
<P406> A sandy early greyware globular jar with a triangular section bead rim. R052, H[166].
<P407> An early greyware necked jar with cordoned shoulder and triangular beaded rim. R71, H[245].
<P233> A common coarse sandy greyware necked jar with an everted rising outward curving rim. R083, H[133].
<P408> A fine sandy greyware constricted necked jar with outward curving everted rising thickening rim cordoned on shoulder sooted at lip. R083, H[242].
<P409> A sandy greyware necked jar with a bifid rim. R083, H[172].
<P410> A common coarse sandy greyware jar with a straight everted rim, cordoned at shoulder. R083, H[250].
<P411> A common coarse sandy greyware necked jar with a beaded undercut rim. R083, H[621].
<P412> A sandy greyware necked jar with squared triangular sectioned rising rim. R083, H[761].
<P414> A well burnished fine grey ware, possible London ware Dr37 copy bead rim bowl. R361, H[300].
<P415> A whiteware ring necked flagon, with internal lid seating and wide handle with three ribs. Some slight sooting on lip. W03, H[621].

REGISTERED LATE IRON AGE/ROMAN FINDS

BY TORA HYLTON

There are *c.*49 individual finds which were not associated with funerary sites or features. Of these, 47 come from Site H and two from Site Q. With the exception of a copper-alloy pin shank and an iron nail from pits sited just north of the Site H funerary enclosure, all of the finds were recovered from the enclosure ditches, pits and wells within the northern extent of the site. The assemblage is dominated by iron nails, but also includes a Nauheim derivative brooch, two brooch pins and a small amount of undiagnostic vessel glass. The small finds are quantified in Table 6.35.

Table 6.35: Quantification of registered finds by functional category

Functional category	No. of finds
Personal possessions	
Costume and jewellery	4
Equipment and furnishings	
Structural, nails	40
Misc. copper-alloy	2
Misc. iron	2
Other	1
Total	**49**

PERSONAL POSSESSIONS

A Nauheim Derivative brooch and two brooch pins were recovered from deposits associated with a post-Conquest enclosure in the northern part of Site H (Fig 6.9). The brooch, <Cu18>, was recovered from the fill of pit H[240] that had been cut into the northern edge of the enclosure. Typologically the brooch equates to Mackreth's Type 3.b.3 (Mackreth 2011, 17), which is a style of brooch dated to the mid to late 1st century AD (*ibid* 2011, plate 8, 4346, 11824). Two brooch pins were also retrieved from the southern side of the same enclosure. One is a pin with four coils and it is broken at the point where the spring widens to form the bow of a Nauheim type brooch, <Cu46>, while the other is just a fragment of a brooch pin and therefore undiagnostic <Cu47>.

A copper-alloy ring is penannular and was recovered from a ditch Q[1213] next to a child inhumation, Q[1008]. The finger ring is crudely manufactured from the terminal fragment of a decorated copper-alloy armlet, which was decorated with a simple motif comprising an incised cross flanked by transverse grooves. Vestiges of a marginally placed zig-zag motif survive along the edges. Signs of extreme wear are visible in places suggesting that the ring/armlet was in use for a long period of time. Finger rings manufactured from reused bracelet fragments are not uncommon and similar examples are known from Colchester (Crummy 1983, fig 50, 1758) and *Verulamium* (Waugh and Goodburn 1972, fig 32, 128).

<Cu18> Nauheim Derivative, copper alloy. Incomplete, part of catch plate missing. Five coils, internal chord; plain bow with D-shaped cross-section and tapered to a point, 40mm long. Mid/late 1st century AD.

<Cu46> Brooch pin, copper alloy. Pin with four coils, broken at point, 30mm long.

<Cu47> Incomplete, bent and part of pin only. Circular cross-section and tapered to a rounded point, 52mm long, 1.5mm diameter.

<Cu> Finger ring, copper alloy. Pen-annular, manufactured from the terminal fragment of a decorated armlet. Decorated with motif of incised cross flanked by transverse grooves, marginal zig-zag motif along the edges. Very worn. Crudely coiled and flat-sectioned, *c.*20mm diameter, 7mm high.

HOUSEHOLD ITEMS

The only items related to domestic activity are the eight undiagnostic body shards of colourless glass, <G45>, which were recovered from pit H[302] together with a number of nails. The fragments measure up to 40mm by 21mm and each piece has a curved profile, suggesting that it originates from a fine vessel/flask. The shards measure *c.*1mm thick, the exterior surfaces are matt as a result of its deterioration. The interior surfaces are smooth.

NAILS

The nails are hand forged with rectangular/square cross-sections. There are 40 individual examples, 39 are from the northern of extent of the site and one is from the south. The largest concentration of nails (15) were recovered from pit H[302], which lay central to the enclosure (Fig 6.9). Where possible the nails have been classified according to Manning's Typology (1985, fig 32).

The majority of the identifiable nail types are represented by Type 1b which has a flat sub-circular head, complete examples range in recorded length from 37-72mm; these were presumably used for furniture or light structural fixings and they would have been hammered flat so that the head was flush with the surface of the wood. There are five nails with large sub-circular/ovoid heads measuring *c.*18-20mm in diameter and one complete example, 108mm in length. These may have been used to secure large timbers. Another nail represents a Manning Type 3, it has a T-shaped head and came from well H[236].

METALWORKING DEBRIS
BY ANDY CHAPMAN

Three pieces of ferrous slag (1,015g) were recovered from separate contexts at Site Q. The largest piece (580g), 125mm long, is from the subsoil and may have travelled some distance by plough. The material is quite dense showing numerous impressions of the charcoal fuel, and indicating that it derives from within the smelting furnace, close to the top of the bloom. The piece from posthole Q[126] shows a partly fluid surface and is tap slag (385g). In its context it was used as post-packing alongside other stones and does not relate to the roundhouse function (Fig 6.16). This slag, while not clearly diagnostic, suggests iron smelting in an unidentified location close to Site Q. A small fragment of undiagnostic iron slag (50g) is from the 1st-century AD enclosure (Fig 6.18).

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS
BY VAL FRYER

Samples were taken from ditches, pits and wells at Site H and Site Q. As roughly contemporary period assemblages they are fairly similar. The significant assemblages are presented in Table 6.36. The full suite of quantifications for other contexts can be found on the accompanying digital content package as part of the Stage 1 assessment and the accompanying data files.

With very few exceptions, the assemblages are extremely small (i.e. <0.1 litres in volume) and sparse, and although plant macrofossils are recorded, preservation of the material is mostly very poor (particularly within the samples from Site Q). Many of the grains are severely puffed and distorted and, in addition, much of the material is highly comminuted and abraded, almost certainly indicating that it was exposed to the elements for some considerable period prior to incorporation within the feature fills. With the possible exception of the fills within well H[236], there is little to suggest that any of the material was disposed of in a systematic manner and it is, therefore, supposed that most plant remains are derived from scattered or wind dispersed detritus.

There are three assemblages that stand out as informative. These assemblages came from well H[236] and pit H[270] in the northern part of Site H and another from pit H[626], which lay in the southern part of Site H (Figs 6.3 and 6.9).

Oat, barley and wheat grains are recorded along with a large number of cereals which are too poorly preserved for close identification. Non-cereal crop plant remains are exceedingly scarce, but a small number of field beans are noted within the fill of well H[236]. Of the identifiable cereals, wheat is generally predominant, probably because of its suitability for production on the local clay soils. There are frequent elongated 'drop' from grains of probable emmer or spelt. Glume bases are also present, with the latter being particularly abundant within the well assemblages. None of the oat or barley grains are sufficiently well preserved for close identification, but as an observation it is noted that the assemblage from well fill H[533] contains a moderate density of small tertiary oat florets. The well assemblages also contain a moderate to high density of detached cereal sprouts, which may suggest that some cereals were being stored on or near the site in less than ideal conditions, resulting in premature germination. Such material is often recorded from the fills of grain storage pits, where the cereal in contact with the pit wall was allowed to germinate, creating a protective skin. This material was then removed by the firing of the pit prior to the next harvest. However, there is little to suggest that the Site H assemblages are derived from such a source.

Seeds of common segetal weeds and grassland herbs are recorded within a number of the assemblages, although rarely at a high density. The taxa that are identified most frequently include small legumes, goosegrass, corn gromwell, medick/clover/trefoil, grasses, dock, field madder and scentless mayweed. Occasional sedge and spike-rush nutlets are also present within the assemblages.

Fragments of charcoal and/or charred wood, many of which are very rounded and abraded, are present throughout, although rarely at a very high density. However, the assemblage from ditch Q[350] is almost entirely composed of charcoal, including numerous large pieces >10mm in size. This may be derived from hearth waste or possibly smelting activities associated with the 1st-century AD enclosure, however, there is a general lack of other material within the assemblage, such as domestic food waste or slag. Stratigraphically the waste dump lay towards the end of the occupancy and was unique to the site, as dumped burnt waste was not evident elsewhere.

Other remains are generally very scarce, although black porous and tarry residues, all of which are probably derived from the high temperature combustion of organic remains, are present at a low density within most assemblages. Small pieces of burnt and unburnt animal bone are recorded, along with small mammal/amphibian bones, and the assemblage from pit H[266] includes a small number of burnt mollusc shells. It would appear most likely that the latter were accidentally imported to the site attached to plant materials which, once used as bedding or litter, were burnt along with their attendant fauna.

Table 6.36: Quantification of significant flots, Site H

Context		**H[270]**	**H[236]**	**H[236]**	**H[626]**
Feature type		**Pit**	**Well**	**Well**	**Pit**
Type	**Common name**				
Cereals and other potential crops					
Avena sp. (grains)	Oat	1cf	32	160	3
(awn frags.)	-	-	384fg	270fg	1fg
(tertiary florets)	-	-	-	48cf	-
Hordeum sp. (grains)	Barley	4	16+16cf	32	2
Triticum sp. (grains)	Wheat	2+4cf	56	128	4
(glume bases)	-	84	1,072	2,610	14
(spikelet bases)	-	8	296	594	1
(rachis internodes)	-	4fg	168	702	-
T. dicoccum Schübl (glume bases)	Emmer	-	8cf	-	-
T. spelta L. (glume bases)	Spelt	64	1,032	2,124	8
(spikelet forks)	-	-	-	16	-
cereal indet. (grains)	-	10	104	224	8
(basal rachis nodes)	-	-	-	18	-
(detached sprouts)	-	2	96	576	12
(detached embryos)	-	-	-	-	3
(silica skeletons – awn)	-	-	x	x	-
Vicia faba L.	Field bean	-	8	-	-
Herbs					
Apiaceae indet.	-	1cf	-	-	-
Asteraceae indet.	-	-	8	16cf	1
Atriplex sp.	Orache	2	-	16	-
Brassicaceae indet.	-	-	-	32cf	-
Bromus sp.	Brome	1cffg	24fg	-	-
Carduus sp.	Musk thistle	-	-	36	-
Caryophyllaceae indet.	-	-	1cf	32	-
Centaurea sp.	-	-	-	18	-
C. nigra L.	Cornflower	-	-	16	-
Chenopodium album L.	Fat hen	-	-	18	-
Chenopodiaceae indet.	-	4	8+1tf	-	-
Cirsium sp.	Thistle	-	-	-	1cf
Small Fabaceae indet.	Small legumes	-	8coty	16cf	-
Lithospermum arvense L.	Corn gromwell	-	1cftf	18	-
Medicago/Trifolium/Lotus sp.	Medick/clover	8	-	90	1+1cf
Papaver sp.	Poppy	1cf	-	32cf	-
Small Poaceae indet.	Grasses	30	512	1494	36
Large Poaceae indet.	-	-	-	90	1cffg
Polygonaceae indet.	-	10	-	-	-
Rumex sp.	Dock	10+2tf	24+1cf	72+16tf	1
Sherardia arvensis L.	Field madder	8	-	-	-
Stellaria media (L.) Vill	Chickweed	-	-	-	1fg
Tripleurospermum	-				

Context		**H[270]**	**H[236]**	**H[236]**	**H[626]**
Feature type		**Pit**	**Well**	**Well**	**Pit**
Type	**Common name**				
inodorum (L.)Sch.Bip.	Scentless mayweed	-	8fg	90	1
Wetland plants					
Carex sp.	Sedge	2+10tf	8	90	-
Eleocharis sp.	Spike-rush	-	-	18	-
Other plant macrofossils					
Charcoal <2mm	-	xxx	xxxx	xxx	x
Charcoal >2mm	-	-	x	x	x
Charcoal >5mm	-	x	-	-	x
Charcoal >10mm	-	-	x	-	-
Charred root/stem	-	x	-	-	-
Indet. floret frags.	-	-	-	-	31
Indet. inflorescence frags.	-	-	-	xxxx	x
Indet. seeds	-	20	24	54	10
Other remains					
Black porous and tarry residues	-	x	x	x	x
Bone	-	-	xb	xb	-
Burnt organic material	-	x	-	-	-
Eggshell	-	xb	-	-	-
Oyster shell	-	-	x	-	-
Small coal frags.	-	x	-	-	-
Small mammal/amphibian bones	-	x xb	xx	x xb	x
Vitreous material	-	-	-	x	x
Mollusc shells					
Zonitdae indet.	-	8b	-	-	-
Vallonia sp.	-	2b	-	-	-
V. excentrica	-	1cfb	-	-	-
Vertigo pygmaea	-	4b	-	-	-
Lymnaea sp.	-	2b	-	-	-
Sample volume (litres)					
Volume of flot (litres)	-	0.1	0.1	0.1	<0.1
% flot sorted	-	100%	100%	100%	100%

x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens, xxxx = 100+ specimens, + = present
cf = compare, fg = fragment, tf = testa fragment, b = burnt, coty = cotyledon

The bulk of the material from the trackway and enclosure assemblages is derived from scattered midden waste, much of which was probably incorporated within the fills after their disuse. Such assemblages are quite common within contexts associated with field systems and trackways, and it would appear most likely that waste materials were probably being dumped on the land along with animal manure and other detritus, a practice which would ensure that malodourous and combustible materials were kept well away from any focus of habitation.

The well was the final point for the deposition of mixed refuse including charred cereal processing and/or storage waste and possibly spoiled fodder or bedding, all of which had probably been burnt in a bonfire as evidenced by the silica skeletons of cereal awn. Similar material is also present from pit H[266] and this may indicate that specific pastoral activities were occurring within the immediate vicinity. Pit H[626] contained a lower density of material, but of a similar type. All of these assemblages appear to have been disposed of within features which were in need of filling.

FAUNAL REMAINS

BY REBECCA GORDON

THE ANIMAL BONE FROM SITE H

The bone preservation at Site H is poor regardless of period. The assemblage also had a high level of fragmentation, greatly reducing the number of identifiable species. Carnivore gnawing was noted on five specimens. Evidence for burning or butchery was negligible. Three cattle specimens had cut marks on an astragalus and two metatarsals.

THE PRE-CONQUEST ASSEMBLAGE

There are 146 fragments from the initial layout of trackways and ditches in the period of the 1st centuries BC–AD (Table 6.37). This includes cattle, sheep/goat, pig, dog and horse bone. Chicken bone was recovered from the north-east trackway ditch and a red deer metatarsal was found in the north of the site. The chicken tarsometatarsus has a spur scar, which is common in cockerels.

Most of the faunal remains comprise a skeletally mature horse in pit [589], radiocarbon dated to the late Iron Age/early Roman period (Table 6.41). It was buried on the north-east side of a funerary enclosure and at the entrance of the trackway. The horse was poorly preserved showing heavy abrasion on the cortical surface. There was no evidence that the carcass was utilised and no body parts were removed. Gnawing marks and pathological lesions were also absent, suggesting a quick burial after death. The animal was buried on its back with its limbs in the air, an unusual position that may suggest some difficulty in moving the carcass. All of the epiphyses were fully fused. It was not possible to determine the sex based on the pelvis, which is incomplete,; however, there are no canines present which suggests it was a mare. Crown height measurements for the P2 and P3 suggest the individual was between 13-15 years (Levine 1982). The extent of the wear noted on some of the molars could also point to the animal's old age, although the coarseness of forage and grit in the soil can affect the rate of tooth wear (Davis 1987, 42). Estimated withers height on the metapodials and radii put the horse within 1.28-1.36m, which suggests it was small or smaller than average (see Vitt 1952), which is comparable to those from Danebury (Grant 1991, 476). Horses are fairly common in the late Iron Age and their burial has been considered by a number of scholars (Grant 1984, Hill 1995b; Morris 2011, 42). Determining whether the animal represents a natural mortality or a sacrifice is impossible, particularly given the absence of other finds (Grant 1984). However, the choice of burial location strongly suggests an intentional relationship between the funerary site and the wider layout of trackways.

Table 6.37: Hand collected identifiable specimens from pre-Conquest deposits, Site H

Species	NISP	%
Cattle (*Bos taurus*)	30	20.55
Sheep/goat (*Ovis/Capra*)	12	8.22
Pig (*Sus scrofa*)	4	2.74
Equid* (*Equus* sp.)	97	66.45
Dog (*Canis familaris*)	1	0.68
Red deer (*Cervus elaphus*)	1	0.68
Chicken (*Gallus gallus*)	1	0.68
Total	**146**	-

*animal bone group

THE POST-CONQUEST ASSEMBLAGE

There are 319 bone fragments from features of the late 1st-2nd centuries AD. Most of these were the same domesticated species seen in the earlier assemblage but included other species such as hare and corvids (crow family) (Table 6.38, Fig 6.44). The hare bone may signify local hunting, or a natural mortality, while the corvid is most likely to have been a site scavenger. The majority of the faunal remains came from ditches; the rest came from pits and wells in the north of the site. There was no obvious difference in the types of species and elements being deposited by feature type; however, dog and horse remains were confined to the main enclosure ditch.

The partial skeleton of a dog came from the north side of the main enclosure ditch. The elements include the fore limbs, hind limbs, vertebrae, ribs and left mandible. The animal was skeletally mature and showed no signs

Table 6.38: Hand collected identifiable specimens from post-Conquest deposits, Site H

Species	NISP	%
Cattle (*Bos taurus*)	94	29.47
Sheep/goat (*Ovis/Capra*)	43	13.48
Sheep (*Ovis aries*)	5	1.57
Pig* (*Sus scrofa*)	48	15.05
Equid (*Equus* sp.)	29	9.09
Dog* (*Canis familaris*)	97	30.41
Hare (*Lepus europaeus*)	1	0.31
Chicken (*Gallus gallus*)	1	0.31
Covid sp.	1	0.31
Total	**319**	-

*animal bone group

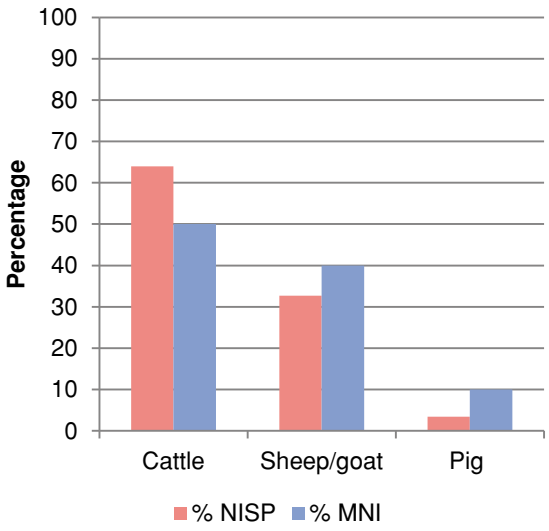


Fig 6.44 NISP and MNI% of the main domesticates from post-Conquest deposits, Site H

of butchery or pathologies. The ditch also contained a cattle cervical and lumbar vertebra, and a sheep humerus. A dog skull was recovered separately, further along the ditch.

Body part analysis of cattle and sheep/goat tentatively show that all parts of the carcasses were present. Fusion and tooth wear data was limited by sample size; however, the epiphyseal data for cattle show that the majority were skeletally mature. Two cattle mandibles were aged between 18-30 months and one was senile (8-10+ years). Fused and unfused elements are present for sheep/goat and one mandible was from an animal 4-6 years old at death. There are too few pig elements to determine whether these were slaughtered on site; one scapula was unfused.

THE ANIMAL BONE FROM SITE Q

From the features undated by finds, those of likely late Iron Age/early Roman date contained 11 cattle bones, 13 sheep/goat bones, three pig bones and one horse bone. There was a predominance of post-cranial elements for cattle and loose teeth for sheep/goat. Two loose sheep/goat third molars were from animals aged between 2–3 years at death.

The assemblage associated with finds of 1st-century AD date comprises 157 faunal elements. The bones display variable preservation conditions but are in fair condition. Bone fragmentation is high and there is no evidence of burning. There are six examples of carnivore gnawing and three specimens with butchery marks on cattle and horse bones. Skinning marks were recorded on a cattle metatarsal and a cut mark was located on the shaft of a horse metatarsal.

Cattle and sheep/goat dominate the assemblage followed by horse (Table 6.39; Fig 6.31). Other mammals and birds included pig, dog and goose. A deer antler fragment and a small rodent humerus were recovered from sieved samples. For cattle, nearly all parts of the carcass were present. Sheep/goat elements were more selective, although the head, fore limbs and hind limbs suggest that most of the carcass was present. Cranial elements are more frequent for pig. Based on the epiphyseal fusion data, young and skeletally mature cattle are present. However, the evidence is limited and should be taken with caution. Three cattle were aged at between 30-36 months and over 3 years based on loose teeth. The epiphyseal information for sheep/goat and pig is restricted by the sample size, however, the tooth wear data indicates that these animals were from 6 months to 3 years when they were culled. One pig mandible was from an animal 14-21 months at death and one canine was identified as male. One cattle third molar had a missing hypoconulid that suggests a lack of genetic diversity in the breeding stock (Davis 1997, 425; Thomas 2005b, 74).

Bone fragments were largely recovered from ditch fills with a small number of bones retrieved from other deposits. The greatest concentration of bone came from the ditch circuit immediately to the north of burial Q[1008], but this showed no obvious bone groups. Pit Q[895] contained a burnt sheep carcass with cremated bone (196g) retrieved from sieving. The burnt sheep is undated; it lay immediately south of the 12th-century timber building at Site Q, and immediately north-east of the 1st-century Roman enclosure. The bones were calcined to white and pale grey, indicating high temperatures were reached, but the burning was not even as some of the bone is simply blackened. The sheep bone included the astragalus, calcaneum, femur, humerus, vertebrae, pelvis, phalanges, radius, tarsal, ulna and skull fragments. Fusion data was recorded for the distal and proximal radius, proximal femur and first phalanx, which suggest the animal was 3.0-3.5 years or older at the time of death.

Table 6.39: Hand collected identifiable specimens from 1st-century AD deposits, Site Q

Species	**NISP**	**%**
Cattle (*Bos taurus*)	67	42.68
Sheep/goat (*Ovis/Capra*)	45	28.66
Sheep (*Ovis aries*)	9	5.73
Pig (*Sus scrofa*)	6	3.82
Equid (*Equus* sp.)	25	15.92
Dog (*Canis familaris*)	4	2.55
Goose (*Anser* sp.)	1	0.64
Total	**157**	-

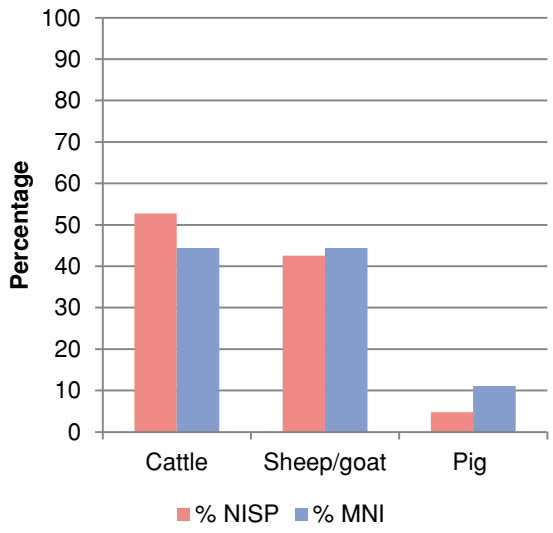


Fig 6.45 NISP and MNI% of the main domesticates from 1st-century AD deposits, Site Q

The ditch of 2nd-century date produced 21 cattle bones, one sheep/goat bone, one pig bone and 23 horse bones, including the skull. Horse bones occur in higher proportions from Roman rural sites than in towns and sometimes occur frequently in proximity to cemeteries (M Maltby pers comm).

OYSTER SHELLS
BY JIM BROWN

There are 73 individual shells, weighing 1,035g, from Site H; they have been studied as a group (Table 6.40). All of the shells are from European flat oysters, *Ostrea edulis.* There are 44 shells from ditch H[329], which is dated by pottery to AD120–200, the others were scattered more widely but are all from the northern end of the site (Fig 6.9).

When mature, the flat oysters may range in size from 38–110mm across. The mean length of shells in this assemblage is 62.3mm for right valves and 70.3mm for left valves. The largest are in the range 80–89mm between the dorsal and ventral margin. The mean width of shells in this assemblage is 54.5mm for right valves and 66.1mm for left valves. The largest are in the range 70–75mm between the posterior and anterior margin. As a group they show a fairly normal healthy and steady pattern of growth.

Usually the lifespan can reach about six years, with a maximum of 15 years. Amongst these examples the growth bands on the shells are fairly thick, with the largest shells averaging a band thickness of 2.9mm, and several examples are up to 4mm thick. Each band represents rapid growth during the warmer months from March to late October, creating low ridges along the shells; the more ridges there are, the older the shells. The mean number of ridges is 8.1, suggesting these oysters had reached maturity.

These shells suggest preferential growing conditions to a greater maturity with little stunt of growth. Thicker growth bands have been laid down more quickly; a pattern suggestive of slightly warmer waters.

The shells are generally fairly symmetrical with a well-formed appearance and only one or two of the smaller examples curl significantly at the dorsal tip. There are 41 right valves, generally white or yellow-cream in colour and 32 left valves with pale creamy-brown or creamy-blue concentric bands; a minimum of 41 individuals. The upper and lower valves are not pairs. The inner surfaces are whitish or blue-grey opalescent mother of pearl. There are four examples from ditch H[244] that are grey and heavily speckled on the inner surface, perhaps the product of post-depositional chemical action.

These shells had some slight infestation of the growing beds, suggesting a wild source (15% of shells). There are 11 examples of infestation from encrusting organisms. Eight of these are boreholes from burrowing marine gastropods. One lower valve exhibits the 'floral' burrowing of the Bristleworm (*Polydora ciliata*), a species of tubeworm. Two upper valves and one lower valve have numerous single burrows of another tubeworm species, Mudworm (*Polydora hoplura*), one around the ventral margin, and the other two at the dorsal tip showing how this can significantly reduce the strength of the shell. One of these, from ditch H[329] has a "sickly" mottled orange-brown and creamy-white appearance on both interior and exterior surfaces. A lower valve has the remnant lateral plates of a barnacle.

Table 6.40: Summary of oyster shells, Site H

	Length (mm)	Width (mm)	Number of ridges	Thickness (mm)	Weight (g)
Right valves					
Mean	62.3	54.5	8.1	2.9	11.9
Left valves					
Mean	70.3	66.1	-	-	17.1

One upper valve carries a single spat oyster upon its surface, but there is no evidence of possible cultch material that may indicate cultivation. Seven shells, five upper and two lower valves, have chalky deposits on their inner surfaces that may indicate rapid changes of salinity. Two shells have deformities in their growth pattern. Five shells have a small chamber inside caused by irritation or a contaminant. None of the shells are modified, none are water-worn and none have shuck marks, perhaps suggesting that they had been opened by cooking or steaming instead of being eaten raw.

The overall character of the Roman oysters suggests that these have been gathered infrequently from a wild source, perhaps in warmer waters close to the mouth of an estuary.

Molluscs

by Val Fryer

Although specific sieving for molluscan remains was not undertaken, shells of a number of terrestrial snails were recorded during Stage 1 assessment, most notably within the assemblages of post-Conquest date (Fryer 2016). However, as many retained good colouration and delicate surface structuring, it was considered most likely that all were relatively recent and therefore intrusive. For this reason, no further interpretation of the molluscan remains was undertaken.

Radiocarbon determinations

Radiocarbon analysis was undertaken for a number of specific objectives relating to sites that were expected to produce dates within the range of the 1st century BC to the 2nd century AD (Brown 2016, 93). Many of these radiocarbon determinations were for the purpose of funerary analysis and are presented in Chapter 5. The only non-funerary feature to produce such a date was the horse burial, H[589], specifically identified for analysis in order to differentiate between the late Iron Age/Roman settlement evidence and the Saxon inhumation cemetery at Site H. Two radiocarbon dates were required, as the initial analysis of charcoal proved erroneous. The results of these determinations are provided in Table 6.41.

Regional landscape context and discussion

Previous archaeological works and associated sites

Characterisation of rural settlements in late Iron Age/ Roman Britain is gradually evolving, but in Bedfordshire it has yet to consolidate into a truly synthetic study. Nucleated settlement and settlement reorganisation, planned field systems and dispersed farmsteads are themes that frequently emerge. There is a growing corpus of data on localised variations in settlement along the river valleys and clay uplands, linked to the economic indicators of specific sites, and this holds the key to understanding their place in Roman Britain and where it is heavily influenced from further afield.

Settlement varies with some late Iron Age examples representing the tail end of long established middle Iron Age occupation (e.g. Site G) and other sites emerging prior to the Roman Conquest and remaining into later centuries. Indications are that significant changes were already in progress at a local level before Roman rule with older settlements being abandoned in favour of new foundations. A common settlement form from the 1st centuries BC–AD was the nucleated farmstead, which lay at the centre of surrounding enclosures. Fieldwalking exercises in the locality confirm the possibility of scattered sites (Hudspith 1995, figs 55–56). The balance of arable to pastoral enclosure characteristics varied, suggesting a shifting balance of economy in certain areas and a mixed economy in others that may coincide with topographic factors. Ditches belong mainly to localised field systems associated with settlement, and rarely for larger landscape arrangements.

Table 6.41: Radiocarbon determinations for a horse burial, Site H

Laboratory & Sample no.	**Context**	**Sample Details**	**C13/ C12**	**Conventional Radiocarbon Age BP**	**Calibrated BC Intercept** *68% confidence* **95% confidence**
Beta-446426 A5M1/H588	pit H[589]	charcoal (indet.)	-25.6	7850±30 late Mesolithic	6655 *6690–6645* **6750–6720/6705–6636**
Beta-456919 A5M1/H590	pit H[589]	horse bone	-22.1 +4.8	1970±30 late IA/Roman	30/40/50 *5–65* **40BC–AD80**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration

Hillforts are few in this area and the nearest is Maiden Bower (SM 1015593), which lies less than 1km south-west, near Sewell. Various antiquarian and more modern archaeological studies have taken place at the hillfort (Hamilton and Pollard 1994). A late Neolithic causewayed camp occupied the site; an inner palisade may have been of the Late Bronze Age/early Iron Age, and occupation was also present in the late Iron Age/ early Roman periods.

Doubtless of profound impact on the area was the construction of Watling Street and *Durocobrivis* (Dunstable), a Roman posting station that is mentioned in the second Antonine Itinerary as being 12 miles (*c.*19.3km) from *Verulamium* (St. Albans), in the direction of *Deva* (Chester). The identity of *Durocobrivis* is questioned as there is no evidence of a fort and no river to bridge at Dunstable (Simco 1984). The two placenames have traditionally been equated, although continuity of settlement can be refuted. Watling Street follows the River Ver for 14km along this route as far as Lynch Hill, Kensworth, after that the next watercourse it crosses is the Ouzel Brook. The growth of a small Roman town and *pagus* (administrative centre) at Dunstable is attributed to the posting station; however, this has not yet been found and no military presence has been demonstrated in the town (AA 2003a).

Both foci interacted with others in their vicinity, but there is little to establish how Iron Age tradition was transformed into Roman culture, which appeared to be a rapid and perhaps even forced, change. If the town was overseen by the resident at Totternhoe villa (Matthews 1989), it is not demonstrable.

Roman farming estates, typically seen as villas, were present in the valleys north of the Chiltern ridge where light soils are suited to arable farming. A courtyard house with at least 14 rooms that included mosaics, hypocausts and painted wall plaster was excavated at Totternhoe in the 1950s. Whilst the grandiose elements were later developments its foundation was in the late 1st century AD. The villa buildings were the product of successful enterprise but, typical of most villa excavations, the nature of the enterprise is not known. Elements that might make up a surrounding estate have not been identified in the area, and an agricultural explanation may not be appropriate.

The period of the 1st centuries BC–AD are finds rich in general. Much has been made of pottery distributions owing mainly to the work of local societies and studies by specialists. Grog and calcareous tempered wares were gradually replaced by shell-tempered wares. Much of the pottery is in local fabrics mimicking popular styles until the market penetration of major pottery centres become evident; pottery and tile from Harrold, colour coated wares from Caistor and slip wares from Oxford. Samian was imported before the Conquest and this trade increased in the late 1st century AD with the addition of Rhenish wares and mortaria. Trade therefore appears slightly insular in late Iron Age Bedfordshire, gaining momentum and opening up to the outside world with the arrival of better infrastructure.

Table 6.42: HER data for the late Iron Age and Roman transitional period

Age noted by HER	HER Ref	Description	NGR	
Iron Age	15855	Cropmarks and Iron Age pottery (+und. Inhumation)	502200	225600
Iron Age	15856	Iron Age activity, Grove Farm	502500	225700
Iron Age/Roman	15839	Iron Age and Roman occupation, south of Long Meadow Farm	503900	226000
Iron Age/Roman	16179	Iron Age and Roman pottery, south-east of Tilsworth village	499000	224000
Iron Age/Roman	16541	Iron Age and Roman settlement, NW of Thorn	500100	225000
Iron Age/Roman	16595	Iron Age/Roman ditches	502800	225700
Iron Age/Roman	19890	Routeway, land south of Grove Farm	501920	225400
Iron Age/Roman	19892	Boundary ditch	503500	225480
Iron Age/Roman	7098	Hollow way, adjacent to Watling Street	499600	224200
Iron Age/Roman	10457	Old Road (Bound Way), south of Chalgrave	500330	225550
Roman	1438	Roman occupation, south-west of Chalton	502310	226180
Roman	1453	Cropmarks and Roman occupation, east of Calcutt	501000	225000
Roman	5508	Watling Street (A5 Kensworth to Potsgrove)	497800	225000
Roman	6659	Well, Chalton	504090	226090
Roman	15501	Roman occupation, Chalton Cross Farm	503500	225100
Roman	16592	Cropmark in south-east corner of Chalgrave parish	502100	226200
Roman	19030	Coin blanks	499000	224000

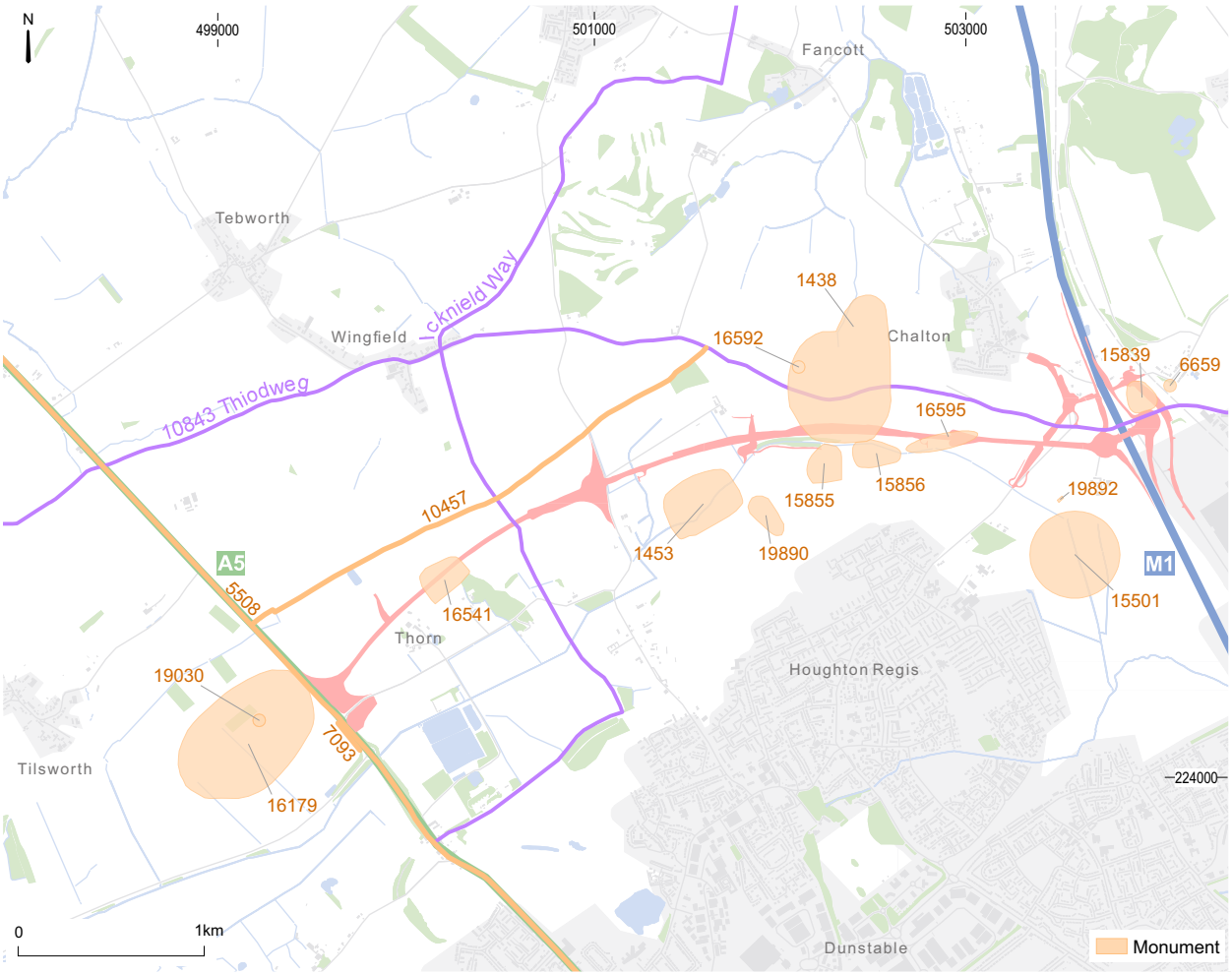


Fig 6.46 HER data for the late Iron Age and Roman transitional period

Late Iron Age and early Roman sites are recorded by the Historic Environment Record (HER) within a 500m wide corridor around the A5–M1 link road (Fig 6.46) and are listed in Table 6.42. The data includes records of interventions for the 2007–8 works associated with the scheme and early evaluation data for the Houghton Regis North Development. Unless physical interventions have been able to demonstrate otherwise it is not always known from the HER whether an Iron Age site is of the early, middle or later period. The following information includes Iron Age sites only where they are known or suspected to be of late origin either because they have been investigated or because they lie in close association with discoveries of Roman date.

Areas of probable settlement

Many late Iron Age settlement sites extend into the early Roman period, absorbing recognisably Roman characteristics, trade goods, technology and methods. Such sites were identified by finds bridging the period of *c*.30BC–AD70 and beyond, specifically pottery. The following sites are presented in order along the route from west to east.

An area to the south-east of Tilsworth was fieldwalked by the Manshead Archaeological Society, 1994–1995. Sherds of Iron Age pottery were found in isolated locations and a large linear scatter of Roman pottery was also recorded (HER16179). The Portable Antiquities Scheme records four copper-alloy coin blanks here that are likely to have been for the production of late 3rd-century Barbarous radiates or 4th-century *nummi* (HER19030; PAS BH-B3E443).

Roman coins and pottery are well known from Thorn (Page 1912). Late Iron Age activity was identified at Site Q, consisting of indistinct cropmarks, possibly representing a complex of small irregular enclosures (HER16541). Geophysical survey revealed possible enclosures, pits, parallel ditches and later furrows (Simmonds and Fisher 2008; PCG 2014, fig 25). Subsequent trial trenches confirmed the presence of ditches (Burrow 2008b). A farmstead was indicated by occupation debris, including pottery sherds, recovered from the gullies and pits, together with the presence of a cobbled surface (*ibid*, fig 3, Trench 11).

An area of possible Iron Age and Roman settlement was identified from fieldwalking and cropmarks to

the south-east of Grove Farm (HER15855-6); however, no features were detected by geophysical survey for the present scheme (Simmonds and Fisher 2008). Trial trench excavation in 2014–15 encountered ditches and pits but there was no securely datable material from any of the features (Brown 2015a-b). Late Iron Age pottery scatters were found along the course of the Ouzel Brook and are thought to indicate a settlement (HER15855). The scatters were associated with the cropmarks of a sub-rectangular enclosure on a slight knoll adjacent to the brook. Excavations in 1991 confirmed the presence of Roman enclosures south-east of the scheme (HER15856). Other occasional finds of pottery may represent manuring scatters from as yet unidentified sites (Hudspith 1991). Within the farmland to the south there are several parallel curvilinear cropmarks, a single curvilinear cropmark is visible on aerial photographs taken in 1996. Archaeological investigations in 2012 revealed an enclosure, pits and an inhumation (AA 2012a; HER15855). A meandering linear cropmark, turning at the west end to form a possible enclosure, was investigated as part of two intercutting ditches, possibly used for boundary and drainage purposes along the Toddington/Houghton Regis parish boundary (HER16595).

A large amount of pottery was recovered during fieldwalking between Houghton Regis and Chalton Cross Farm (HER15501), which dated to the 3rd and 4th centuries AD (Hudspith 1991). Slag was also recovered, suggesting that industrial activity was occurring nearby. Evaluation finds included pottery, nails, a knife and a brooch, and in 2012 these were demonstrated to be from a site incorporating rectangular enclosures, boundary ditches and a possible well, typical of a Roman farming settlement (AA 2012a). A boundary ditch, thought to be contemporary with this site was discovered to the north-west, which may indicate a further enclosure (AA 2012a; HER19892).

At M1 Junction 11a the trial trench evaluation found outlying enclosures and field boundaries of a probable settlement (Burrow 2008b; HER15839), which geophysical survey had been unable to identify due to gravel clay in the geology. Further work confirmed that late Iron Age/Roman boundaries lay to either side of the M1 motorway, which may have been part of a contemporary ancient landscape that was fragmented by the motorway development (Brown 2014b; 2015a–b).

Other sites and monuments

The Roman road of Watling Street (HER5508) is now the modern A5, which has a junction at the west end of the scheme. A short section of hollow-way lies adjacent to Watling Street, close to the hedgerow, and marking the agger of the Roman road (HER7098).

An earthwork known as Bound Way lies to the north of the scheme and perpendicular to the A5 (HER10457). In the 17th–19th centuries it marked the Chalgrave/Houghton Regis parish boundary. It is mentioned in a charter of AD928 as a dyke lying between Theedway and Watling Street, thought to be an Iron Age dyke that was used during the Roman period, but this is unproven. The enclosure award of 1800 records the earthwork as Boundway Lane.

The Icknield Way, previously mentioned as a possible prehistoric trackway, is recorded as crossing the scheme. It is known to have been used by the Romans along sections of its route further to the east. Excavations in 1971–2 at Turnpike Drive, Luton, found cart ruts in which Roman coins and horseshoes were bedded (Dony and Dyer 1975).

A scatter of Roman building material was discovered near Calcutt in the 1980s, which led to a small scale excavation of a possible shrine or temple (HER1453). Due to the marshy nature of the ground, the stone building was supported on oak piles. Belgic pottery, tile and stone scatters were found during further fieldwalking in the 1990s and excavations in 2012 revealed evidence of an enclosure complex (AA 2012a).

A late Iron Age or Roman trackway was found by excavation aligned parallel to the Ouzel Brook on land south of Grove Farm (HER19890). There were two parallel ditches that corresponded with linear geophysical anomalies, *c.*200m in length (*ibid*).

An extensive area of Roman material, including building debris, was identified by fieldwalking to the west of Chalton (HER1438). Aerial photographs show small enclosures and building. The area was excavated in 1962 and further finds were recovered but no evidence of a building was found. Further excavations in 2000 suggested that an alignment of sandstone blocks may have been the source of the cropmark. A small irregular curvilinear cropmark has also been identified through aerial photography (HER16592).

Ditches were identified by trial trench evaluation at Site J (Brown 2015b; HER16595). Subsequent investigations found pits associated with boundary ditches and demonstrated that these were late Iron Age in date.

During the construction of the Midland Railway in 1865, Roman pottery was found near to Site H. When the railway was widened in the 1890s, a Roman well, 12.2m deep, was discovered (HER6659). At the bottom of the well the railwaymen recovered three water bottles, one of which they smashed, the others were secured by a local antiquarian. He described them as fine specimens of Upchurch ware. Higher up at intervals were large quantities of animal bone, some of which were also retained.

LATE IRON AGE TO MIDDLE ROMAN (C.AD 0–2ND CENTURY AD)

There were up to five late Iron Age/early Roman sites. Site Q seemingly started in the late Iron Age 1st century BC and continued after the Roman Conquest. In *c*.AD0 at least three settlements emerged at Sites F, H and P. Site J may have been active either pre- or post-Conquest.

The pattern of Iron Age and Roman settlement differs to Biddenham Loop where the number of settlement sites and farmsteads decreased from the middle Iron Age to the late Iron Age/early Roman (Luke 2016, 241). Knight noted a general increase in Iron Age settlement density across the region (Knight 1984), as did Dawson (2007, 66), but interestingly the date varied between areas.

Simco (1984, 12) recorded "Belgic expansion across Bedfordshire" and saw new settlements as occurring almost exclusively on the better soil and hardly ever occurring away from the valleys (*ibid*, 14). Since that work, further evidence has identified a small number of settlements established outside these areas. The expansion in the number of settlements during this period is emphasised by recent research that has shown over 60% of Roman settlements in the central belt of England, including Bedfordshire, started in the late Iron Age (Smith 2016, fig 5.8). Smith also stated that "it seems inescapable to conclude that Roman rural settlement was not evenly distributed across the region, and the major fertile valleys...might possibly have had higher levels of activity, associated with their greater capacity for agriculture production" (Smith 2016, 145). Smith later expanded on this comment to state farmsteads in general appeared to have favoured lower lying ground, namely the valley slopes and gravel terraces, and this was especially true of complex farmsteads within the West Anglian Plain (*ibid*, 175). The Ouzel brook and Flit valleys are situated on good soils and fit this pattern.

The transitional period probably saw the start of a significant expansion in the number of archaeological sites locally, unfortunately the nature of linear excavations along road schemes means that only parts of possible settlements are examined and the observation is hard to confirm. It is therefore unknown if earlier and later parts would be present beyond the excavated extent.

Settlement in this period seems to have been abandoned by the 1st or 2nd century AD. Roman remains dating to the 3rd and 4th centuries were notably absent. A truncated burial contained several late Roman inhumations F[906], that belonged to the 5th century AD. The abandonment dates for each settlement was different; Site Q had no Roman activity after *c*.AD70 and Site H may have been abandoned around the mid 2nd century AD. Samian forms characteristic of a site occupied in the second half of the 2nd century AD are largely absent from the Site H assemblage. Burials from Site F ceased *c*.AD70.

The abandonment of settlements in the 2nd century is not unusual. Meade recorded settlement sites in Central Bedfordshire and found there was a slight decline in numbers by the 1st century AD. This was followed by a small increase in the 2nd century and a further decline into the 3rd–4th centuries (Meade 2010, table 6.2). Along the A421, Bedfordshire, two of the three late Iron Age/early Roman settlements were abandoned in the 2nd century with only one, Site 8, continuing into the 3rd and 4th centuries (Poole 2007b, 145). Similarly, two of the three excavated farmsteads (OE Area 2 and Brooklands) at Broughton, Milton Keynes, were abandoned in this period (Atkins *et al.* 2014). At Willington, Bedfordshire, the sites had no direct Roman successors to small Iron Age farmsteads (Dawson 2007).

Evidence for middle–late Roman rural settlement in Bedfordshire is less common than rural settlement dating to late Iron Age/early Roman period. In the past it was argued that the late 2nd century was a period of regional upheaval (Woodfield with Johnson 1989, 264) and this resulted in fortification of some towns; a large ditch was dug around *Magiovinium* (near Milton Keynes), the next town to the north of *Durocobrivis* (Dunstable), and some villas in the area were burnt and abandoned. Although this theory does not attain significant support today, it attempted to rationalise the changes in the density and nature of settlement when numerous settlements were abandoned. Dawson (2007, 74) postulated that middle–late Roman settlements were subject to enclosure and emparkment by creating estates, which both swept away earlier sites and were fewer in number. None of the farmsteads along the A5–M1 link indicated conflagrations prior to their abandonment and only Site H was occupied in the Roman period proper.

LOCATION OF THE LATE IRON AGE/EARLY ROMAN SETTLEMENTS

Meade (2010, 35) noted the preference for a riverside position for settlement in Central Bedfordshire that gravitated towards watercourses of any size compared with locations in earlier periods.

Sites F and H lay on relatively high ground. Sites F and H were on the valley ridge to the south of the River Flit. The other settlements were situated on lower land; Sites J, Q and P were just north of the Ouzel Brook in the valley bottom. The latter two are in a similar landscape location as the farmsteads recovered at Biddenham Loop where they were located on the gravel terrace immediately above the edge of the flood plain, close to the present river (Luke 2016, 241). At Bozeat Quarry, Northamptonshire, a possible settlement was established in proximity to a watercourse (Atkins 2018, 160).

All of the settlements were under Catuvellauni influence by *c*.AD0, a short distance from the Iron Age hillforts at Maiden Bower, Ravensburgh and Danesborough. The latter is thought to be a trading post or market, which may have remained in use into the Roman period (Zeepvat and Radford 2010, 76). The settlements were also situated within the economic hinterland of *Durocobrivis* (Dunstable), lying *c*.3–8km away. The next nearest town was *Magiovinium c*.15km to the north-west, and both were connected by Watling Street.

Significant to the founding and continuity of these farmsteads was the Ouzel Brook. This watercourse was both a water source and a tributary of the River Ouzel, which after passing *Magiovinium* joins the River Great Ouse at Newport Pagnell. The River Ouzel is thought to have been navigable for large boats (Meade 2010, 95), but the Ouzel Brook was presumably either not navigable or only for small boats.

The nature of settlement

All the settlements are likely to have been farmsteads; there was no evidence that any of the sites were of an agglomerate type (i.e. a village or villa). A moderate part of the settlement areas at Sites H and Q were examined were probably representative of the activity occurring across these sites. Both sites are classified as complex farmsteads (Smith 2016, 151-3). The sites fall within the West Anglian Plain where complex farmsteads were by far the most common settlement form recorded (*ibid*, fig 5.14).

A common settlement form in the 1st centuries BC–AD was the nucleated farmstead, perhaps like Site H, which lay at the centre of an agricultural landscape managed by enclosures. Results from fieldwalking exercises in the locality support this interpretation (Hudspith 1995, figs 55-56). The field system, trackways and enclosures at Site H sat astride the hilltop at the watershed of the Ouzel brook and Flit valleys.

At Site H, the settlement and field system were well planned. The probable settlement area was partly examined within the northern extent of the site. The edge of a series of small linked rectilinear enclosures is reminiscent of that elsewhere in Bedfordshire (Dawson 2007, 73). Field systems extended over 200m from the probable domestic focus, laid out across the plateau of the hill in the latest Iron Age pre-Conquest period. The location of this settlement on a plateau is less common, as this type of settlement was most commonly found parallel to a river or stream (*ibid*, 73). A Roman well, 12.2m deep, was discovered near to Site H, directly to north-east of the excavation during widening of the railway in the late 19th century (HER6659) and this may denote a separate settlement foci or a much larger extent of activity covering much of the hilltop and its slopes. The date and period of occupation at Site H is common this type of settlement (*ibid*, 73; Dawson 2000, fig 10.10). The overall layout of the settlement has similarities to Biddenham Loop Farmstead SL54 (Luke 2016, fig 5.26).

At Site H large enclosures were arranged on either side of two trackways and continuing beyond the excavation area. It was not clear if these enclosures were used for pastoral or arable farming. The field system was similar to Marsh Leys Farmsteads 4–5, where the larger fields tended to be on the periphery (Luke 2011, 148).

There were some concentrations in artefact deposition in parts of Site H. This can be seen at the terminals either side of the entrance of ditch H[329], which produced substantial quantities of artefacts, particularly pottery. Floor tile was found exclusively to the north of the site and two wells were found within one particular enclosure.

Unfortunately, the layout of all the other farmsteads along the A5–M1 link is substantially less clear. Apart from Site H there were no other definite trackways seen within the excavation areas. Whether this is significant is not known, as relatively small areas were excavated at these sites. The settlement at Site Q was preceded by an unenclosed roundhouse and nearby boundary ditches, possibly part of enclosures, followed by sequence of small enclosures, but at Sites J and P the features were too peripheral to interpret further.

Trackways

Simco (1984, fig 66), records several probable pre-Roman trackways close to the sites. This includes the Icknield Way, which meanders its way across the valley (Fig 6.2), but was not identifiable with archaeological features. A track on the possible route of the Icknield Way was excavated near Letchworth and comprised a hollow-way containing wheel ruts from which a fragment of pottery of mid 1st-century AD date was recovered. The route may have been in use from the late Iron Age onwards (Moss-Eccardt 1964). Late Iron Age trackways are common in Bedfordshire; an example was found at the Marsh Leys Farmstead 2, which continued in Roman use (Luke 2011, 143-5 and fig 9.1). At least one of the Biddenham Loop settlement trackways was created, and Luke (2016, 246) thought most of its trackways probably originated, in this earlier period.

Newly established settlements of this period were connected by a network of roads (Taylor 1979, 21; Cunliffe 1995, 113). The trackways associated with individual farmsteads would have linked to larger roads and then, in some places, to small towns. Small towns were established in this period, for instance at

Cambridge where new roads including Akeman Street were being built (Evans and Ten Harkel 2010, 53). Akeman Street was linked to Watling Street just north of *Verulamium*; Watling Street itself is thought to have been constructed post-Conquest (Simco 1984, 63). Many other trackways and small towns in Eastern England were suggested as originating in the late Iron Age and continued into the Roman period, e.g. Avenell Way, constructed between the two markets of Baldock and Cambridge (Atkins and Hurst 2014, 100) and the road between Baldock and Sandy (Meade 2010, 94; Johnston 1974).

The late Iron Age trackways at Site H were 7–10m wide and a further trackway was later constructed, 11.5m wide. All the Biddenham Loop Romano-British farmsteads contained trackways with the gap between the external ditches being typically between 4–8m (Luke 2016, 247). Luke quotes other examples of trackways at Great Barford, Site 8 (Poole 2007a, 107), and Broom (Cooper and Edmonds 2007, fig 6.4).

Buildings

There were only two probable buildings found within the excavations. An unenclosed late Iron Age roundhouse at Site Q and a possible sill beam building at Site H; the latter was probably agricultural in function and may be of 2nd-century date. Evidence for buildings in Central Bedfordshire and Milton Keynes is limited, particularly in the late Iron Age (Meade 2010, 41). It was considered that this may be due to later truncation removing ephemeral former features. Meade (2010, 41) found that for these two areas respectively just 37.5% and 35% of settlements retained evidence for structures in the 1st century AD.

Site Q roundhouse

The roundhouse at Site Q had an internal diameter of *c.*10m, marked by a ring ditch, and within its interior was a pit and nine postholes. There was some truncation in the area of the possible entrance on its south-eastern side, but compared with other examples recorded in Bedfordshire it survived fairly well. A probable south-eastern entrance correlates with the pre-Roman tradition of having an entrance facing the sun (Hill 1995b, 54).

Of the latest period roundhouses recorded in settlements within Bedfordshire (*c.*10), the one at Site Q was both similar and better preserved. Four late Iron Age/ early Roman roundhouses were tentatively identified at Marsh Leys; all were significantly truncated (Luke 2011, 152-4 including fig 9.13). The two best surviving roundhouses were *c.*9m across, one with a south facing and the other a north-west facing entrance. One roundhouse had a single posthole, another three postholes and a pit, and two had no internal features. The roundhouse at Luton Road, Wilstead, was also very truncated, possibly 11m across with its entrance on the east side (Luke and Preece 2010, fig 7). The roundhouse at Stagsden was 10m in diameter (Dawson 2000, fig 25), and at the Bedford Western Bypass, Area 1, roundhouse G1014 was *c.*5m in diameter (Albion 2008, 27–8).

As well as being similar in size, parallels are drawn between the form of the roundhouse at Site Q and other regional examples. The Biddenham Loop excavations produced a possible roundhouse (G5111) at settlement SL144, formed of a small ring ditch (Luke 2016, 245). By contrast, two roundhouses at Bovis Farmstead 6/8 survived as arcs of postholes and neither had an external ring gully (Luke 2008, fig 9.8).

Small quantities of tile and brick were recovered from Site H and a handful of residual items were found at Site Q. At Site H, finds of floor tile and brick were mainly concentrated to the north and west of Enclosure 9, north of the entrance. However, roof tiles were not represented within the assemblage, giving a clear indication that the building from which this material was derived was probably thatched or roofed with shingles. The distribution of material suggests that the structure was perhaps within, or immediately outside this enclosure where the sill beam gullies were found.

Site H sill beam structure

An undated possible building was found at Site H associated with sub-rectangular enclosures. It comprised two parallel rounded slots possibly for sill beams, orientated east–west. Beam slot structures are not commonly found; it is thought that the purpose of beam slot buildings was to raise the floor above the ground to ensure a dry floor. At Colne, Cambridgeshire, there were 45 various types of beam slot or part beam slot buildings out of nearly 70 examples in order to raise the floor above water floods (Evans *et al.* 2013, 262).

Site H was not on low lying land, but it was located in a natural depression where silting deposits demonstrated that a ditch channel regularly overflowed, perhaps during flash floods. The gullies at Site H were similar to long beam slot structures, although on the small size; the slots were 6.0m long and set 5.0m apart, creating a 30sqm footprint. In comparison, the 13 contemporary long beam slot structures at Colne were 29–336sqm in extent (Evans *et al.* 2013, table 3.11).

In Bedfordshire only two other settlements have produced possible Roman beam slot structures. At Marsh Leys Farmstead 4 there were two convincing examples with up to a three more postulated (Luke and Preece 2011, 48, 53 and 155). The first, G481, had multiple slots whereas the other, G433, was similar

to the building at Site H although it was much larger, possibly *c*.20m by 10m. At Luton Road, Wilstead, there were possible parallel beam slots within the edge of the main settlement area (Luke and Preece 2010, 110 and fig 5). These two slots were *c*.7m in length and *c*.1m apart, 0.60m wide by *c*.0.30m deep.

Other comparable examples are known from further afield; at Steeple Morden, Cambridgeshire, there were five buildings close in appearance to the building at Site H (Atkins and Hurst 2014, 97–102 including figs 6 and 13). These buildings comprised parallel slots, four of them adjacent to a road, and dated from the 2nd–4th centuries AD. The beam slots were up to 6.8m long, and one was 8.4m long, ranging between 3.8–5.6m apart. Each slot was up to 1.04m wide by 0.46m deep. The Site H beam slots were 1.1–1.4m wide by 0.50–0.70m deep, larger than at Steeple Morden where the structures were thought to be agricultural, with possible uses including shepherds' huts and storage barns. Another similar building at Chignal, Essex, is from a Roman villa, where it was also thought to be agricultural and was located adjacent to a possible threshing barn (Clarke 1998, 24, 135, fig 17).

Economy

The economic evidence for most of the settlements was too meagre for detailed interpretation, with only Sites H and Q producing quantities of artefacts and ecofacts. Overall the evidence from pottery and metalwork in particular suggests that the settlements were not particularly out of the ordinary or of significant status.

Pottery

A large percentage of the pottery was in locally produced utilitarian wares. Finewares, other than samian, were notable by their absence. The pottery from the cremation burials comprised similar material to the domestic and agricultural assemblages.

The pottery from these sites is in many ways typical. The early Roman material is dominated by wheel-made grog tempered wares in the Aylesford–Swarling tradition while greywares and oxidised wares are few. The pottery within graves was not of high quality either with relatively few Gallo-Belgic copies and extremely few imports. Finewares consist of north Gaulish imported whitewares and Terra Nigra copies. Terra Nigra itself is notably absent, perhaps reflecting the low status of a rural site. Analysis suggests that the populations using the burial ground at Site M1A deposited more ceramic vessels with cremations than at the A5–M1 sites, but the significance of this is not clear.

There were few mortaria sherds and no amphora recovered from the sites. The small quantity of finewares from Site Q can be partly explained by its demise in the late 1st century AD. Samian was scarce with just two sherds from Site Q and 44 sherds (0.328kg) from Site H. The absence of pre-Flavian types suggests that samian was not used on Site H in the early part of the 1st century AD. This is typical, although not often noted (Evans *et al.* 2017; Pitts and Perring 2006). Samian was generally absent from basic level rural sites before the Flavian period (Evans *et al.* 2017 for Cambridgeshire; Millett 1980 for Sussex) and was usually restricted to military sites or planned Roman settlements, with only a very minor element in the supply of finewares to *oppida*.

By the early Flavian period, however, South Gaulish samian was acquired albeit in relatively small quantities across rural sites in Britain (Willis 2005). The group is too small to attempt any kind of statistical or functional analysis but the forms represented and the emphasis on plain wares generally fit with typical samian functional profiles for rural sites in Britain (*ibid*, section 8.2.6). The presence of a vessel with evidence of repair within such a small assemblage also fits a rural site and is in keeping with other published evidence (*ibid*, table 73).

The typical model of finewares throughout the province and beyond comprised Terra Nigra and Terra Rubra, their copies, Gallic flagons and butt beakers. The rapid transition early in the Flavian period is similar to the cemetery at Towcester (Evans and Mills 2016) of Flavian–Trajanic date where Class E fabrics are only 41% and Romanising greywares amount to 32% (by number of sherds). Rural sites throughout the south-east started to acquire samian ware, and continue to use it at least in small quantities thereafter. 'Romanised' greywares became the dominant fabric type in most areas very rapidly. An economic transformation of pottery production at this time is indicated by the appearance of greyware pottery kiln sites at predominantly urban sites.

Metal objects

The small quantities of metal objects from the excavations are notable. In non-funerary deposits metal objects came from two Sites Q (2) and H (47), but the vast majority of these were nails. Key metal objects of interest comprised a Nauheim Derivative brooch and two brooch pins from a post-Conquest enclosure at Site H, and a copper-alloy finger ring from Site Q, possibly associated with an inhumation.

The burials produced a relatively small number of objects, reported in Chapter 6. In the 48 graves at Site M1A only six had metal objects that were not nails or fragments of strips. At Site F another six graves produced metal objects, with an additional two nails. From the burials at Site H there was a single lead pot

mend. Brooches were relatively sparse, and collectively only seven were found. Other sites in Bedfordshire produced a higher number of brooches per grave. There may have been at least two boxes from M1A[4073] and F[245] out of 83 cremations overall.

Faunal remains

It is difficult to make deductions about husbandry practices; however, the range of species is familiar for the period. Only two sites had enough bone elements to provide a meaningful sample; at Site Q (1st century AD) and Site H (post-Conquest) there were more cattle than sheep/goat bones. For Site Q the cattle comprised 43% to 29% sheep/goat. The Site H percentages were affected by the quantity of dog and pig bones, but if the latter were counted as singular, cattle bone was in the largest quantity (Table 6.39).

This assemblage can be compared with other local and regional examples. Animal bone assemblages have been assigned into sub-regional groups (Allen *et al.* 2017, fig 3.1), with Bedfordshire falling within the south-western extent of the Fens case study area. The percentages of cattle bone in the assemblages from the A5–M1 sites broadly correlated with the 40–50% suggested (*ibid*, fig. 3.16). In contrast, the percentages for sheep/goat remains is slightly below the proposed values of 30–40% (*ibid*, fig 3.17). In Bedfordshire the percentages of animal bone deposited are more nuanced and cattle have sometimes outnumbered sheep/goat, but there is much variation (Mark Maltby, pers comm.). These results are similar to Marsh Leys Farm, Bedfordshire, where cattle comprised 58% and 65% of the assemblages from Farmsteads 2 and 3 respectively (Maltby 2011, 123). Sheep/goat remains comprised only 36% and 23% (*ibid*, 123). This dominance of cattle continued into the Roman period at Marsh Leys Farm (*ibid*, 126-127). Maltby notes the reliance on cattle at Marsh Leys Farm was greater than at other contemporary sites such as at Biddenham Loop, but thought that this may be due to its lowland location and the availability of pasture and water (*ibid*, 125). At Biddenham Loop in late Iron Age/early Roman contexts there was 45% sheep/goat compared with 36% cattle bones (Maltby 2008b, 239).

Domestic species dominated meat production with a few wild resources making a small dietary contribution. This pattern is typical for Roman rural sites, which tend to be dominated by the main domesticates and are lacking in wild species (Strid 2014, 337). Similar species in the late 1st–2nd centuries AD were found in the Roman assemblage at Broughton Farm Manor, Milton Keynes (Strid 2014, 338), which included chicken, hare and corvid. Body part analysis suggests that local animals were slaughtered and butchered, and the fusion data for cattle tentatively suggests these were mature herds, perhaps primarily dairy stock.

In the various human burial remains there were only a few votive offerings, but in most cases faunal remains were not generally a recognisable part in the burial rite. The only recognisable instances of this practice were articulated animal bone groups from F[348] and H[3015]. In the former this comprised part of a lamb lower spine, while in the latter this comprised a pig spine and ribs, probably as a side of meat. No animal remains were cremated with any of the human burials. A comparative practice was observed at at Tiel-Passewaaij, Netherlands, where cremated sheep bone was deposited in pits in association with pottery vessels (Groot 2014, 182). In that instance it was hypothesised that the deposits comprised a ceremonial meal and an offering to the dead (ibid, 179). They are also described as a symbolic representation for a dead person whose body was not available to be cremated (ibid, 182), although in both instances from the current site, human remains were also present. Evidence for the burning of sheep/goat bones at Site Q seemed to be separate to that of the funerary contexts.

Farming

The amount of arable versus pastoral farming within the settlement is uncertain. Pastoral farming may have been quite extensive as enclosures were common in Site H and boundaries were clearly observed at Site Q. Waterholes were also investigated at Site H. However, some of the large fields/enclosures could have been arable in nature despite a general lack of crop processing evidence. There was very poor preservation of the charred plant remains. Oat, barley and wheat grains were the main crops noted but were mostly extremely small, derived from scattered or wind dispersed detritus. There was some evidence for charred cereal processing and/or crop storage from well H[236] and pits H[626, 266]. Parts of four querns were from Site H comprising two Millstone Grit examples, a Hertfordshire puddingstone and fragments of lava quern. Two Hertfordshire puddingstone querns, a possible saddle quern and a possible grinding stone came from Site Q.

Craft/industry

There is very little evidence for craft or industry in any of the settlements. Metalworking was indicated at Site Q, where three pieces of slag were found in secondary deposits within a 1st-century AD enclosure, a posthole which had a piece of tap slag. Iron working had occurred near to Site Q, but its location is unknown. Few iron objects were found in any of the sites, perhaps reflecting the value of the material.

Animal burials and ritual deposits

A complete horse burial, H[589], was radiocarbon dated to within the 1st centuries BC–AD (Table 6.41). This horse was buried at a prominent position within a pit located at the end of a trackway arriving at the plateau from the north-east and was also in the middle of the north entrance to a funerary enclosure (see Chapter 6, Fig 6.3). The location in a prominent place linked to a human burial ground may be of significance. At Broughton, Milton Keynes a horse was buried in a 2nd-century pit, adjacent to a human inhumation (Atkins *et al.* 2014, fig 5.19).

An articulated horse burial that was not directly associated with ritual practice is relatively unusual (Luke 2011, 161). They were held in high regard because they had economic, military, religious and cultural value (Meade 2010, 66), and for that reason horse burials are associated with high status sites (*ibid*, 66). Meade (*ibid*, table 5.18) records four sites where there have been horse burials in Milton Keynes and Central Bedfordshire dating between the late Iron Age and the end of the Roman period from Wavendon Gate (late Iron Age), Marsh Leys (2nd century), Brackley Hatch (two partial horses dating to the 2nd century) and Stagsden Golf Course (3rd–4th centuries). The date of the horse burial at Site H is not unusual and is at the period when people valued, admired and venerated horses as seen by their use on coins of the latest Iron Age. A similar dated horse was recovered from ditch of enclosure 10 at Broughton, which dated to the latest Iron Age/early Roman period (Atkins *et al.* 2014, 79). At Marsh Leys Farmstead 4, Bedfordshire, there was an articulated horse dated to the 2nd century and buried in a shallow pit (Luke and Preece 2011, 63).

In comparison to cattle and sheep, pig remains were not commonly consumed as part of ceremonial meals. It has been proposed whether the joints of pigs were used in funerary rites because they were not consumed every day (Groot 2014, 185). As well as Broughton Farm Manor, pig remains were recovered from an early Roman cemetery at Victoria Road, Winchester (Maltby 2010, 32).

A dog skeleton was amongst the mixed midden waste, which included food waste, and was used to backfill the main enclosure ditch at Site H, as demonstrated by the pottery cross-fits. The dog was not afforded any particular significance by its own burial.

The chicken bone is noteworthy as this species started to occur in the British archaeological record in the early Iron Age, *c.*500BC, it is rare in most middle Iron Age sites and was only found in small numbers in the late Iron Age (Mark Maltby, pers comm) to become more common after the late Iron Age, but was not common until the end of the Roman period (Sykes 2012). Chicken was found in greater numbers at urban sites but was rare on rural settlements (Mark Maltby, pers comm). Its presence demonstrates an early introduction before chicken were widespread in Europe. Late Iron Age chicken remains were also found at A421 (Holmes 2007b, 344), Stagsden (Roberts 2000), Salford (Roberts 2005) and Marston Vale (Strid 2013). There is uncertainty regarding the use of domestic fowl in the late Iron Age and it has been suggested that they were used for cockfighting and had ritual significance, whereas by the Roman period they also provided meat and eggs (Holmes 2007b, 344; Sykes 2012) alongside continuing ritual significance (Mark Maltby, pers comm).

Review of project objectives

The settlements at Sites H and Q are characterised and dated as pre-Roman sites, reorganised after the mid 1st century AD. They seem to represent the continued use of stock enclosures from the late Iron Age but neither settlement continued in use beyond the mid 2nd century AD and their abandonment may signal a significant switch in the Roman agricultural economy. The sites themselves would feed into a wider study of how Roman rural communities interacted and functioned (Oake 2007, 10-2, 73-4; Medlycott 2011, 31-7), however, such synthetic work lies beyond the scope of the present publication.

There was very little evidence for crop processing across the scheme, and none of it came from Iron Age or Roman deposits. Cereals, whilst present, lacked the concentrations necessary to demonstrate production and cleaning, which in turn suggests relatively small scale growing practices and foodstuffs traded onto site. The study of faunal assemblages suggests a weighting towards livestock and animal husbandry practices. The late Iron Age faunal assemblages are significant and since they are from sites that also draw a distinction between earlier and later-middle Iron Age periods, the observation of relative continuity in types and proportions of livestock is valuable (Murphy 2007a, 70-71). There has been some comparison with contemporary sites within the region but not to the extent that the subject may warrant, and further work is desirable.

Comparison of nearby contemporary sites in light of the historically recorded insurrection of the 1st century AD, which included the sack of *Verulamium* by Boudicca in AD61, has not been relevant or possible. At Puddlehill there may have been clearance either in the aftermath of the Roman Conquest, AD43, or around AD61 (Matthews and Warren 1992, 38-39). However, the evidence from the sites presented here does not support this conclusion. At Site G settlement abandonment took

place prior to AD0, and the few stray transitional late Iron Age/early Roman sherds of pottery appeared as casual losses in the upper fills of disused boundaries. Other sites were subject to development and change but not clearance. Both Sites H and Q indicated significant reorganisation in the 1st century AD, which is visible as a pre-Conquest and post-Conquest divide, although probably more widely distributed across the middle of the century. However, taking into account all of the sites occupied in the 1st century AD, the general theme is one of continuity of occupation into the late 1st–2nd centuries AD, and only tailing off thereafter. This suggests that site abandonment was based on economic fortunes and change, not on violent reprisal.

Chapter 7

SAXON FUNERARY REMAINS, PITS, CULTIVATION SOILS AND MEDIEVAL SETTLEMENT

Summary of Saxon and medieval settlement and funerary remains

Saxon activity along the A5–M1 link took the form of an isolated inhumation cemetery at Site H of the mid to late 7th-century and Saxon pits, relict soils and cultivation evidence at Site F on the south-east side of Chalton, although no indications of Saxon settlement were identified.

Medieval remains were fairly sparse along the route; even cultivation furrows from the open fields were limited in extent either because ridging was not the primary method of cultivation or because cultivation was absent. Two main medieval sites were found in close proximity to known historic settlements at Sites F and Q, although the full extent of these is not known (Fig 7.1).

The principal settlement at Site F was of the late 11th-12th centuries, with little continuity into later periods. A sequence of enclosures formed small closes containing buildings, all of which were abandoned and levelled in the late 12th century. A lack of furrows at this location suggests the land probably reverted to pasture.

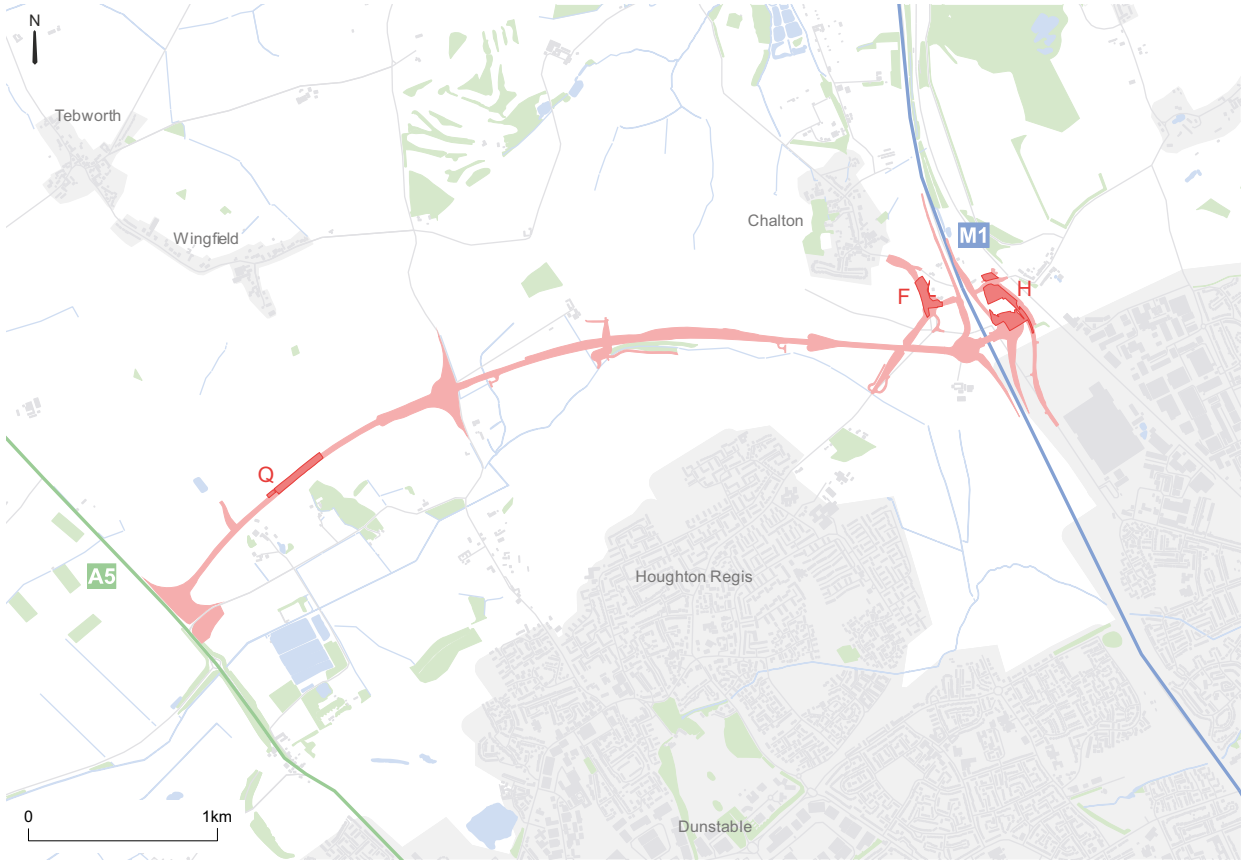


Fig 7.1 Location of Saxon and medieval sites

Medieval settlement at Site Q lay immediately to the north of a Scheduled Monument moated site called Thorn Spring (NHLE ID: 1013519; HE 2018a). Several boundary ditches contained pottery of the 11th–12th centuries, and bounded a timber-framed building, which was in use for less than 50 years. This land probably reverted to pasture well before the rise of the wool trade in late medieval England.

Saxon inhumation cemetery at Site H

A small middle Saxon burial ground was found at the north-eastern extent of Site H comprising nine inhumation burials scattered over an area of *c.*40m by 25m (Fig 7.2). The inhumations lay within 100m of the late Iron Age/early Roman funerary site. The few datable finds suggest these burials date from the mid–late 7th century. It is uncertain whether the burials comprised the whole burial ground but as no burials were identified within 7m of the site's north-eastern baulk, it suggests the limit of the burial ground may have been reached on this side. The burials were found in isolation from other features of this period with no known associated middle Saxon settlement nearby.

Eight adults and one sub-adult were excavated; poor bone preservation and incomplete skeletal remains meant six of the individuals remain unsexed. However, finds from the graves may help to suggest the gender of some of these individuals. The alignment of the burials was varied; seven were aligned north-west to south-east and four of these had the heads at the north-west end, one was aligned north–south with the head to the south, and one was aligned east–west with the head to the west. There does not appear to be any spatial distinction between different orientations, which is quite common (Lucy 2000, 2). There was no evidence to suggest that any of the bodies had been interred in coffins, and it is assumed that the bodies were laid in their graves fully dressed as in life.

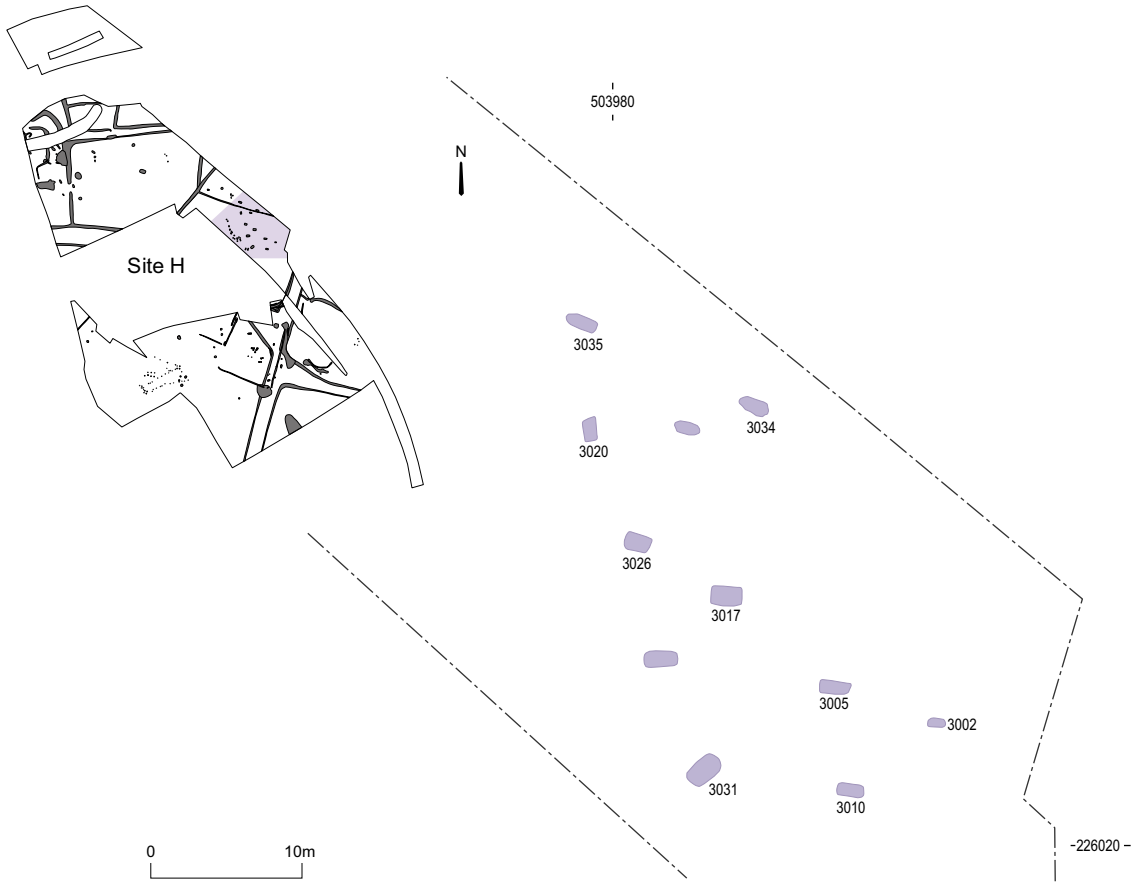
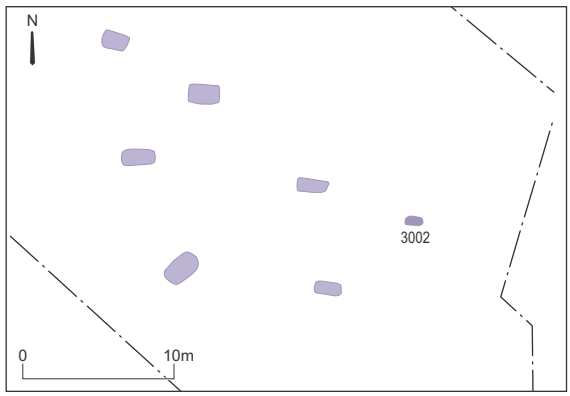
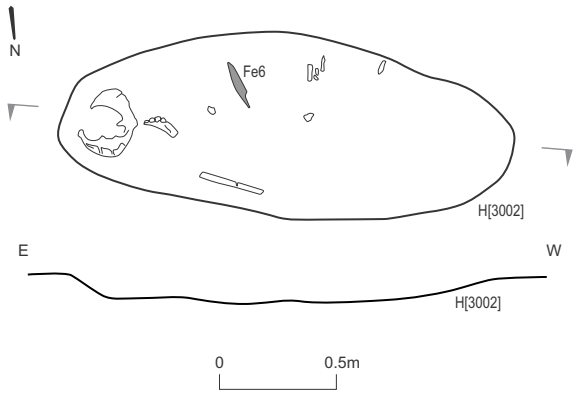


Fig 7.2 The Saxon cemetery, Site H

BURIAL CATALOGUE



Burial H[3002], looking south



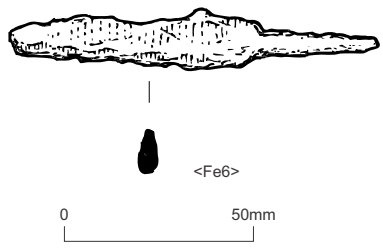


Fig 7.3 Inhumation burial H[3002]

INHUMATION BURIAL H[3002]

Type: ?supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: adult (18-25 years old)
Finds: iron knife, four residual late Iron Age/early Roman pottery sherds

The oval grave lay at the south-eastern extent of the cemetery and was aligned north-west to south-east. It was 1.20m long by 0.50m wide in plan, and 0.05m deep with shallow sloping sides and a flat base (Fig 7.3). The poorly preserved skeleton of an adult was less than 10% complete. The individual was aged between 18-25 years at death and could not be sexed. The body lay supine, extended, the head at the east end, with parts of the lower jaw, both arms and fragments of other bones surviving. An iron knife <Fe6> had been placed at the waist H[3003]. The grave fill was dark grey-brown clay silt.

Finds catalogue

<Fe6> Whittle tang knife, iron. Found over pelvis, pointing south-west, away from body. Incomplete, tip of blade missing and broken in four pieces. Tang in line with back of blade; back of blade horizontal and cutting-edge parallel then curves to tip. Whole knife, 97mm long. Blade 67mm long, 9mm wide, 3mm thick. Tang, 30mm long. H[3003].

INHUMATION BURIAL H[3005]

Type: supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: adult (26-35 years)
Finds: silver ring, copper-alloy ring and pendant

The grave was aligned north-west to south-east and was oval, 1.96m by 1.10m in plan, and 0.12m deep (Fig 7.4). The sides were moderately sloped and the base was flat. The skeleton was an adult, but it could not be sexed. The head was at the north-west end and the body lay supine, extended, with the upper and the top part of the lower arms suggesting they had lain at its sides. The skeleton was *c.*15% complete. Two finger rings, <Ag10> and <Cu10a>, and a copper-alloy pendant, <Cu10b>, lay upon the chest H[3012]. The grave fill was dark grey sandy clay.

Finds catalogue

<Ag10> Ring, silver. Found on chest. Incomplete, four fragments made from a circular-sectioned wire no more than 1mm thick. Fragments are up to *c.*21mm long and the terminal on one fragment is wound in spirals of two turns around the wire to close the ends. *c.*24mm in diameter. H[3012].

<Cu10a> Ring, copper alloy. Found on chest. Incomplete, three circular sectioned rod/wire fragments up to 1mm in diameter. One fragment has a curved profile, *c.*30mm long. *c.*25mm in diameter. H[3012].

<Cu10b> ?Pendant, copper alloy. Found on chest. Seven miniscule sheet fragments, up to 7x6mm; three have curved edges and one is concave. They appear to represent a separate circular base, *c.*7mm in diameter, to which a hollow dome would have been soldered. Decorative fitting/pendant, possibly for a necklace. H[3012].

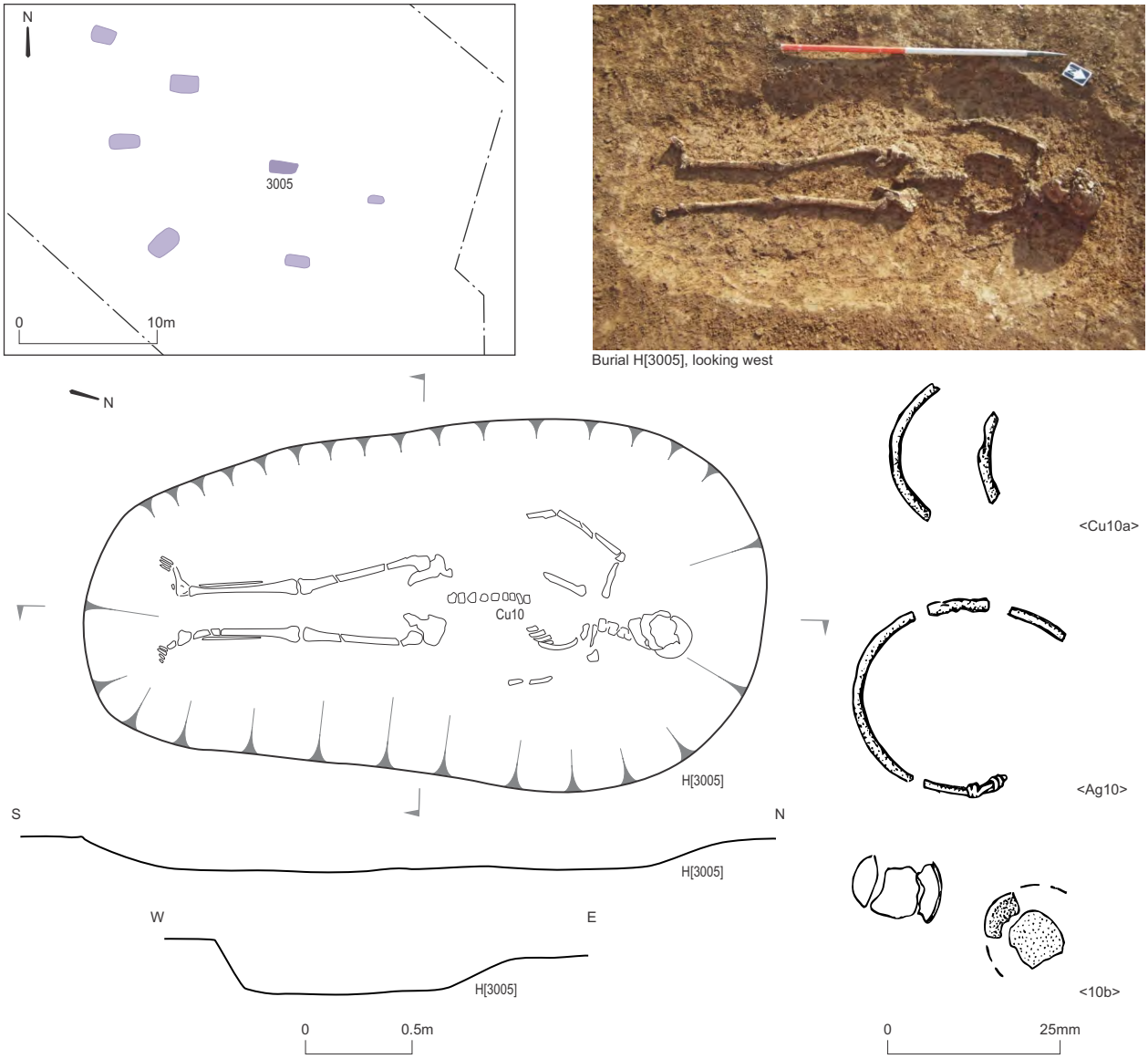


Fig 7.4 Inhumation burial H[3005]

INHUMATION BURIAL H[3010]

Type: supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: adult (18-25 years)
Finds: an iron knife, a possible sheath, two residual early Roman pottery sherds

The grave was aligned north-west to south-east and was oval, 1.85m by 1.0m in plan, and 0.10m deep (Fig 7.5). The sides were shallow sloping and the base flat. The skeleton was an adult, aged 18-25 years at death and up to 30% complete, but could not be sexed. The head was at the north-west end and the body lay supine, extended. An iron knife <Fe8> lay at the waist H[3007] and a possible sheath <Fe9> was above the right hip H[3008]. The grave fill was dark grey-brown sandy clay.

Finds catalogue

<Fe8> Whittle tang knife, iron. Found over pelvis, pointing towards left hip. Complete, tang central to blade with stepped shoulder; back of blade is horizontal then angles down to tip, cutting-edge horizontal. Whole knife, 160mm long. Blade, 120mm long, *c.*19mm wide, *c.*5mm thick. Tang, 40mm long. H[3007].

<Fe9> Buckle frame/buckle-plate, iron. Found above right hip. Complete, but broken in three pieces. Narrow, oval frame with pin and rectangular plate attached. Plate folded around inside edge of frame and secured to strap by three dome headed tubular rivets, positioned in a line along the rear edge of the plate. Type II24a (Marzinzik 2003). Buckle, 14mm long, 28mm wide. Plate, 30mm long, 20mm wide. Pin, 18mm long, 3mm wide. H[3008].

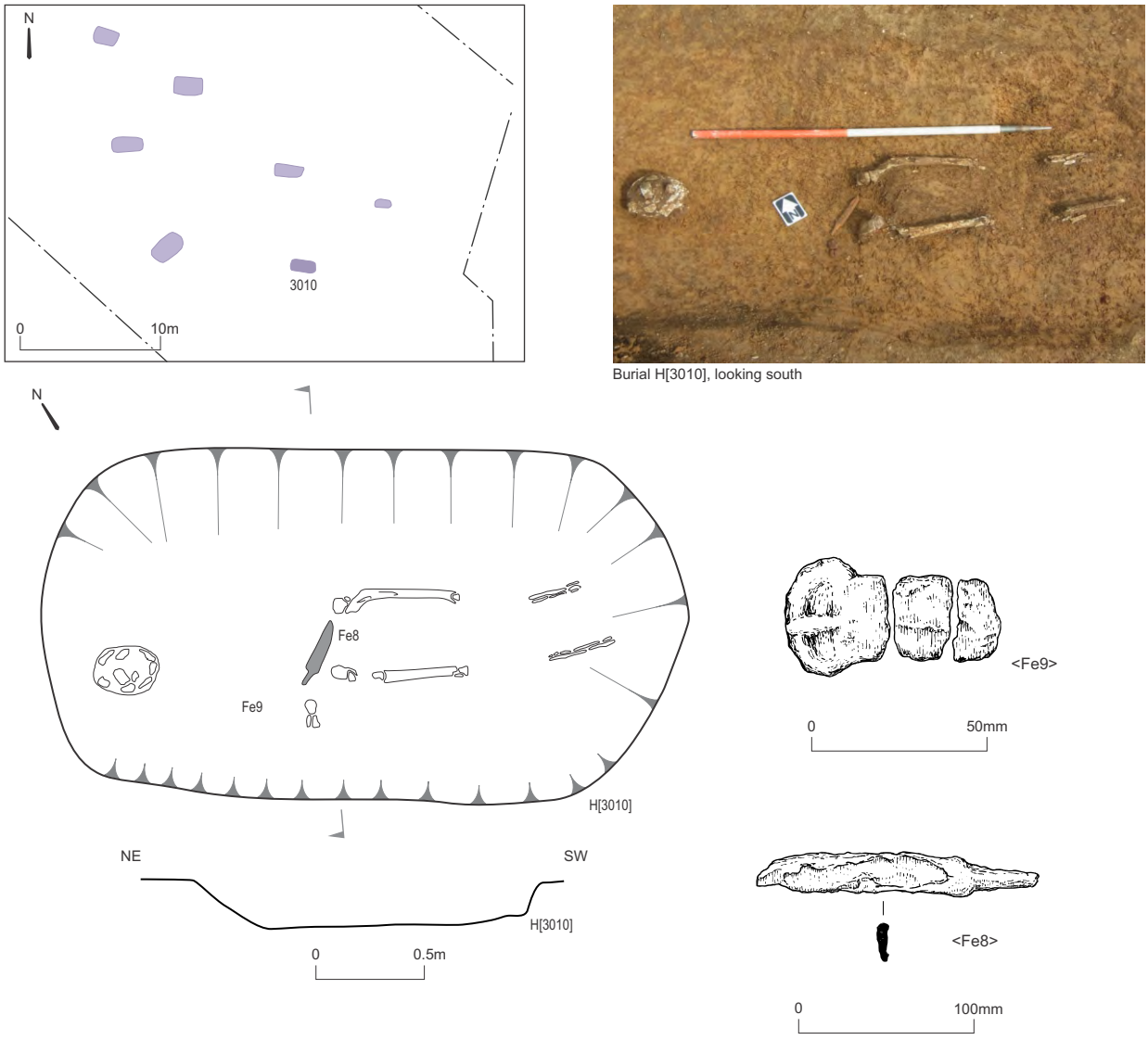


Fig 7.5 Inhumation burial H[3010]

INHUMATION BURIAL H[3017]

Type: supine, extended
Date: mid–late 7th century
Sex: male
Age: adult (at least 46 years old)
Finds: an iron spearhead, an iron knife, ten residual late Iron Age/early Roman pottery sherds

This grave was aligned north-west to south-east and was sub-rectangular, 1.90m by 1.14m in plan, and 0.30m deep (Fig 7.6). The grave was flat based with steep sides, although at the western and northern edges this slope was much shallower in the location of the skull and spearhead. The burial was deeper than most of the others and the skeleton had the best survival at up to 60% complete. The skeleton was an adult male, at least 46 years at death, and exhibited a serious peri-mortem blow to the skull that had not healed. The head was at the north-west end and the body lay in a supine position, extended. The left hand was placed over the pelvis and the right hand at its side. A spearhead <Fe11> lay *c.*100mm to the left of the shoulder, and a knife <Fe12> lay under the left side of the ribcage with the tang pointing towards the left hip. The grave fill, H[3016], was dark grey-brown silty clay.

Three copper-alloy objects (<Cu16>; <Cu17a>; <Cu17b>) were found below the skeleton, after the burial was lifted and their locations within the grave are uncertain.

Finds catalogue

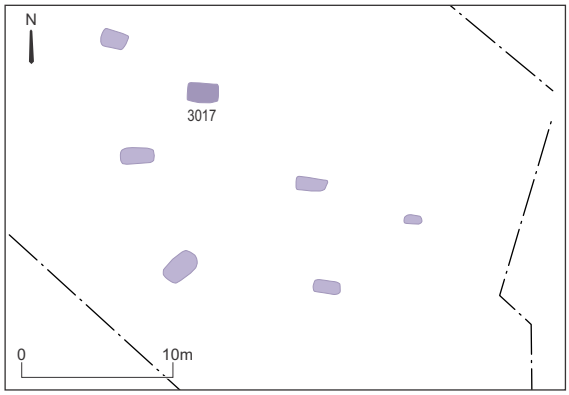
<Fe11> Spearhead, iron. Found adjacent to head, parallel to left side of body. Complete, but socket broken. Leaf-shaped blade with short solid neck and open socket, Swanton Type C2 (Swanton 1974). Ferruginous wood deposits survive in the socket, *Fraxinus excelsior*, ash wood haft. Whole spearhead, 323mm long. Blade, 190mm long, 42mm wide, *c.*6mm thick. Neck, 25mm long, 12mm in diameter. Socket, 108mm long, *c.*15mm internal diameter and 20mm external diameter. H[3016].

<Fe12> Whittle tang knife, iron. Found under left side of rib cage. Incomplete, tip of blade missing and broken in two pieces. Tang central to blade with sloping shoulder; back of blade horizontal then angles down to tip, cutting-edge parallel to back of blade. Whole knife, 140mm long. Blade, 105mm long, 18mm wide, 5mm thick. Tang, 35mm long. H[3016].

<Cu16> Buckle frame/buckle plate, copper alloy. Found behind rib cage. Complete, good patina. Oval frame with solid sub-circular cross section and copper-alloy pin attached. Rectangular plate passes through the frame and folded in half, notch for the pin. Plate secured to strap by two rivets placed at the opposing end to the buckle. Ferrous spots indicate that the rivets were made from iron. Type II.24b-ii (Marzinzik 2003). Buckle, 10mm long, 21mm wide. Plate, 14mm long, 15mm wide. H[3016].

<Cu 17a> Ring, copper alloy. Found beneath skeleton. Incomplete, two fragments from a length of circular sectioned wire/rod up to 1mm in diameter. The fragments are up to *c.*35mm long and the terminals retain vestiges of the wound wire spirals which closed the ends to form the ring, *c.*22mm in diameter and 1mm thick. H[3016].

<Cu17b> Sheet fragments (x3), copper alloy. Found beneath skeleton. A flat disc and two joining concave fragments which would have been ?soldered on to the circular plate to form a domed bell-like object, not dissimilar to that recovered from inhumation H[3005]. 9mm in diameter. H[3016].



Burial H[3017], looking north

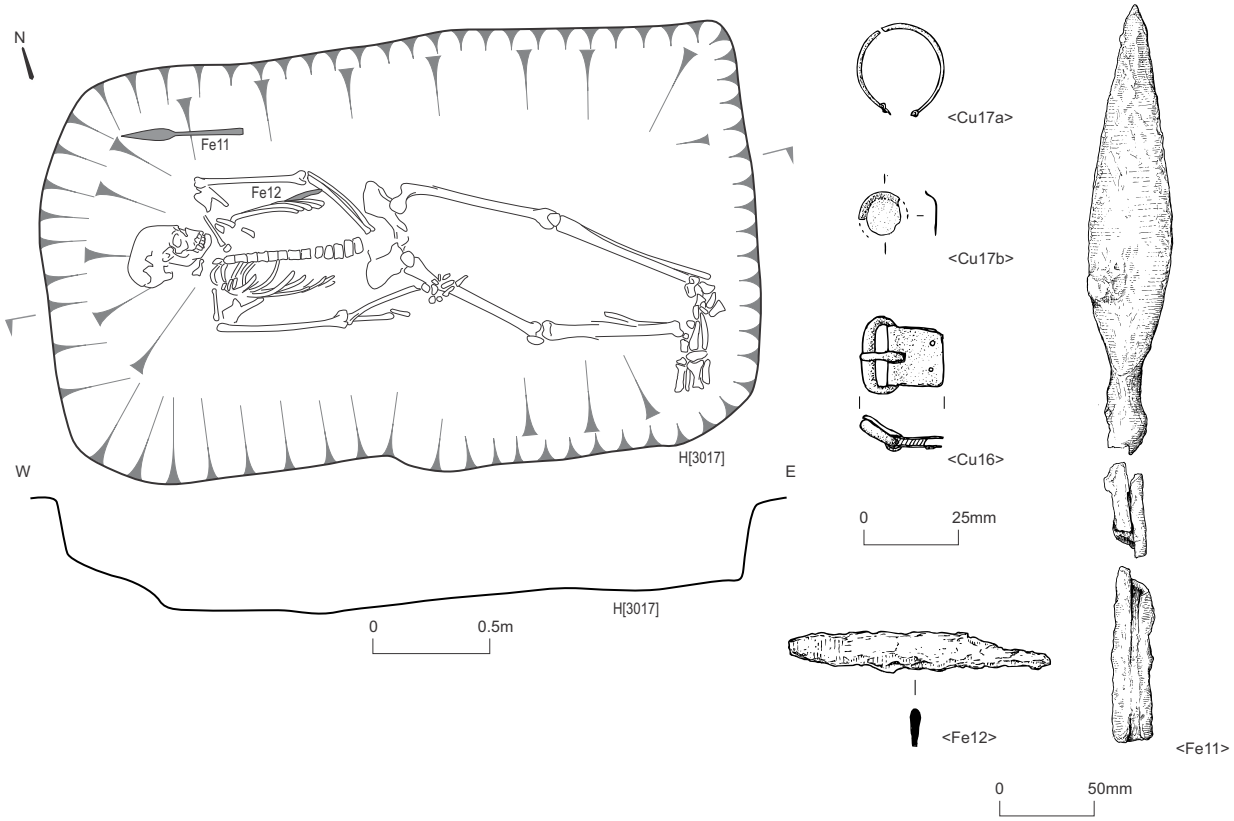


Fig 7.6 Inhumation burial H[3017]

INHUMATION BURIAL H[3020]

Type: supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: sub-adult (6-11 years old)
Finds: copper-alloy buckle, object, an iron knife, one residual Roman pottery sherd

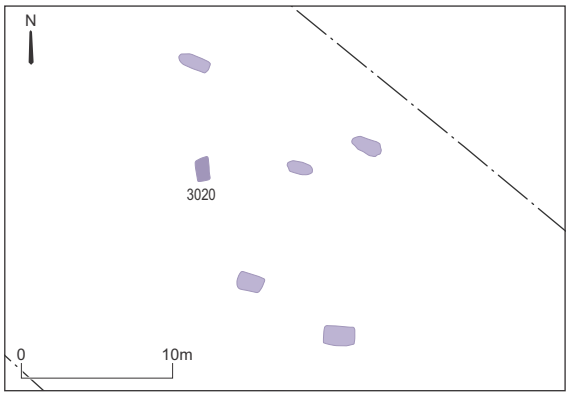
Another grave lay in the northern part of the cemetery, aligned north to south and was sub-rectangular, 1.60m by 0.83m in plan, and 0.17m deep (Fig 7.7). The sides were steep with a flattish base. The skeleton of a youth, aged 6-11 years at death, was up to 40% complete. The head was at the south end and lay in a supine position, extended. Both hands had been placed over the stomach. A copper-alloy buckle <Cu13> was at the belt, another copper-alloy object <Cu14> located directly to the east of the head, and a knife <Fe15> at the left wrist. The grave fill was dark brown silty clay.

Finds catalogue

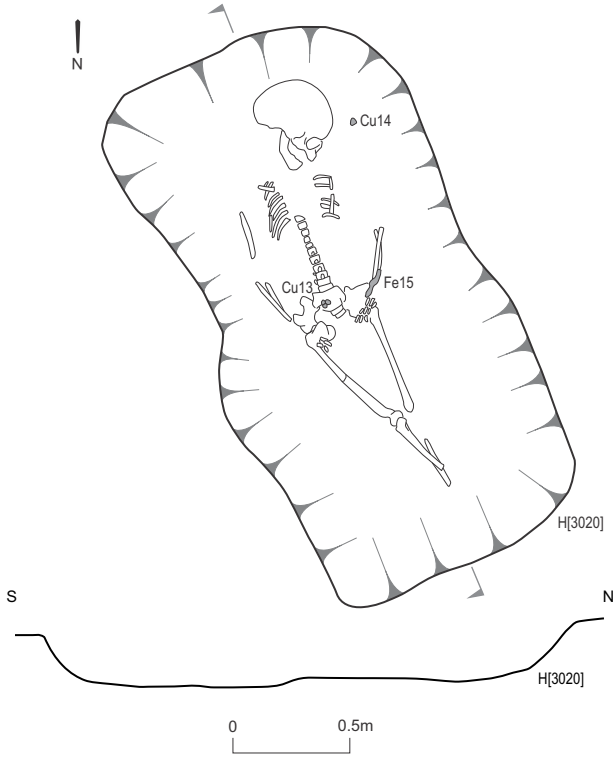
<Cu13> Buckle frame/buckle-plate, copper alloy. Found over pelvis. Complete, but broken. Oval frame with solid sub-circular cross section and copper-alloy pin attached. Rectangular plate passes through the frame and folded in half; notch for the pin. Plate secured to strap by two dome-headed rivets placed at the opposing end to the buckle. Type II.24b-ii (Marzinzik 2003). Buckle, 7mm long, 15mm wide. Plate, 12mm long, 9mm wide. H[3019].

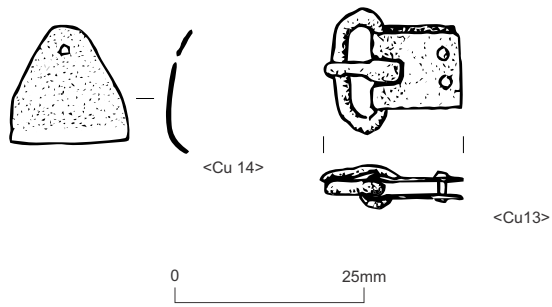
<Cu14> Sheet spangle, copper alloy. Found on the left side of the head. Sub-triangular in shape and perforated for suspension. Lower edge damaged. Similar examples from Burial 86, Morning Thorpe, Suffolk (Green *et al.* 1987). 15mm high, 15mm wide. H[3019].

<Fe15> Whittle tang knife, iron. Found by lower left arm. Complete, tip of tang is missing. Tang central to blade with sloping shoulder; back of blade horizontal then angles down to tip, cutting-edge parallel but tapers slightly toward tip; appears to be a result of excessive sharpening. Whole knife, 130mm long. Blade, 90mm long, *c.*12-18mm wide, *c.*5mm thick. Tang, 40mm long. H[3019].



Burial H[3020], looking south





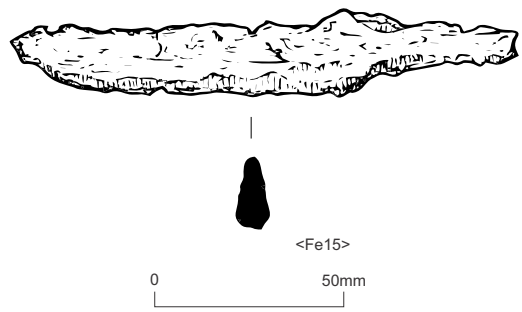


Fig 7.7 Inhumation burial H[3020]

INHUMATION BURIAL H[3026]

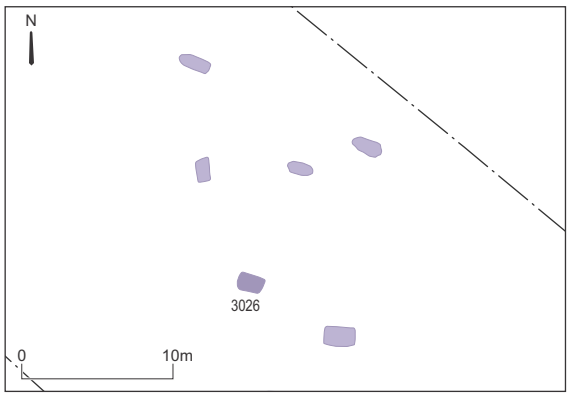
Type: supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: adult (36-45 years old)
Finds: iron buckle and an iron knife

The grave lay in the middle area of the cemetery aligned north-west to south-east and was sub-rectangular, 1.80m by 0.80m in plan, and 0.16m deep (Fig 7.8). The sides were steep with a flat base. The individual was aged 36-45 years at death and was up to 20% complete. The head was at the north-west end and the body lay in a supine position, extended, although its legs were bent presumably to fit the body into the cramped grave. The arms lay at the sides. A knife <Fe70>; H[3023] was positioned at the individual's waist and a buckle plate/frame lay adjacent to the knife <Fe66>; H[3024]. The grave fill was mid grey-brown silty clay.

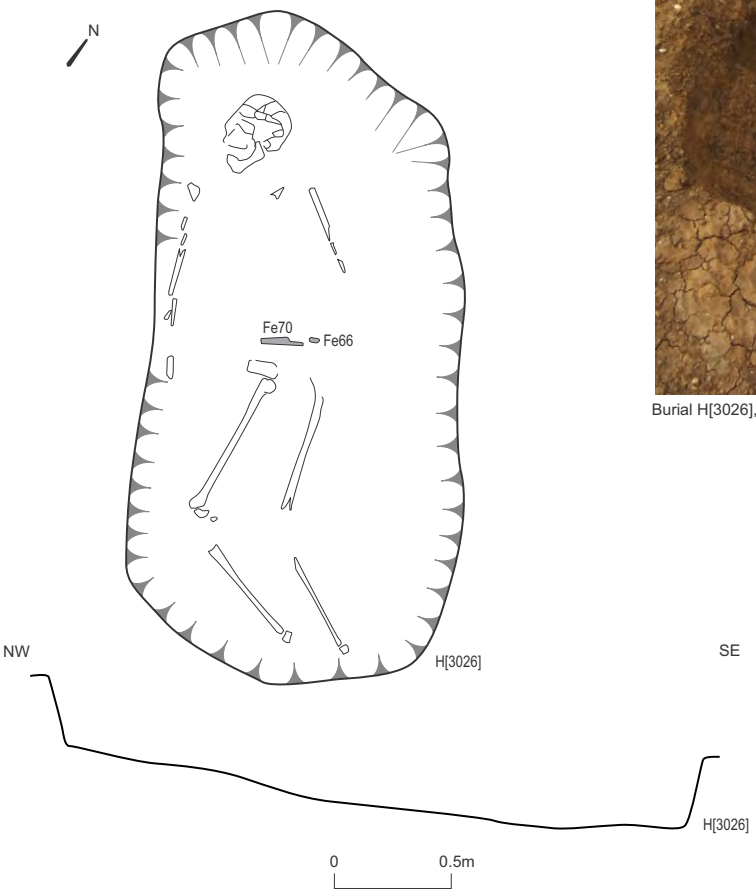
Finds catalogue

<Fe66> Buckle frame/plate, iron. Found over pelvis, north-east of knife. Oval frame with pin attached. Small rectangular plate secured by two rivets. Type II 24a (Marzinzik 2003). Buckle, *c.*10mm long, *c.*19mm wide. Plate, *c.*15mm long, *c.*13mm wide. H[3024].

<Fe70> Whittle tang knife, iron. Found over pelvis. Incomplete, tip of blade missing. Tang central to blade with stepped shoulder; back of blade rises then angles down to tip, cutting edge horizontal. Whole knife, 163mm long. Blade, 106mm long, *c.*20mm wide, *c.*5mm thick. Tang, 57mm long. H[3023].



Burial H[3026], looking north-west



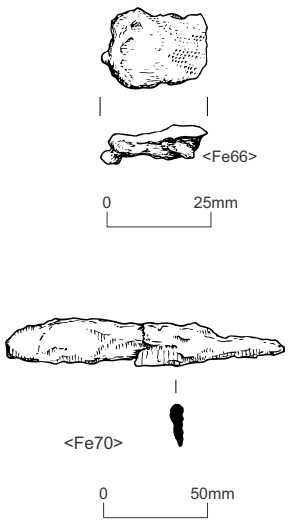


Fig 7.8 Inhumation burial H[3026]

INHUMATION BURIAL H[3031]

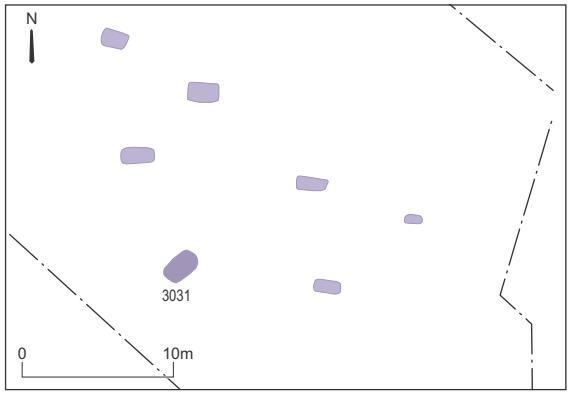
Type: supine, extended
Date: mid–late 7th century
Sex: uncertain
Age: adult
Finds: an iron buckle and knife

This grave lay in the southern part of the cemetery, aligned east to west and was oval, 2.22m by 1.12m in plan, and 0.17m deep (Fig 7.9). The sides were steep with a flat base. The skeleton was up to 25% complete and was an adult, but the sex could not be determined. The head was at the west end and the body lay supine, extended, with arms at its sides. A knife <Fe54> was at the waist, between the left leg and arm, and a buckle <Fe55> lay at the waist in the position of a belt (both recorded as context H[3029]). The grave fill was mid brown silty clay.

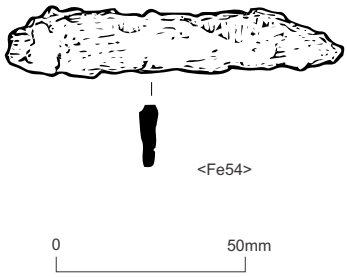
Finds catalogue

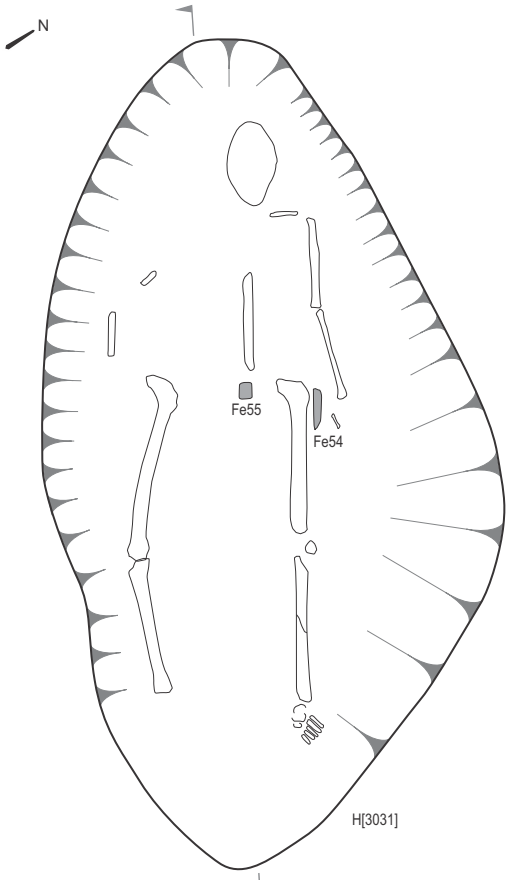
<Fe54> Whittle tang knife, iron. Found between hip and lower left arm, pointing towards feet. Incomplete, most of tang missing. Rectangular sectioned tang, stepped shoulder, back of blade horizontal then angles down to tip. Cutting edge horizontal and parallel to the back of the blade. Whole knife, 88mm long. Blade, 82mm long, 13mm wide, 4mm thick. H[3029].

<Fe55> Buckle frame, Iron. Vestige of small plate, broken. Found over pelvis. Narrow, oval frame with pin attached. Type I.11 (Marzinzik 2003). Plate not visible on X-ray, two small fragments survive. Buckle, 12mm long, 25mm wide. Pin 15mm long, 4mm wide. H[3029].



Burial H[3031], looking west





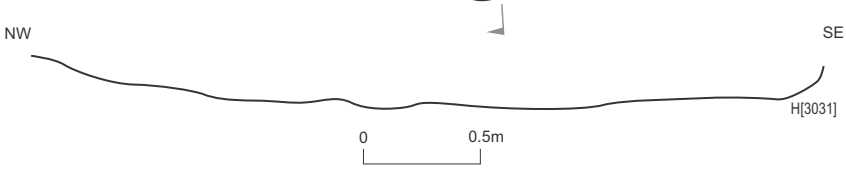


Fig 7.9 Inhumation burial H[3031]

INHUMATION BURIAL H[3034]

Type: supine, extended
Date: mid–late 7th century
Sex: ?female
Age: adult (18-25 years)
Finds: copper-alloy brooch, workbox, chain and possible keys

The grave was aligned north-west to south-east and was sub-rectangular, 1.60m by 0.80m in plan, and 0.12m deep (Fig 7.10). The sides were steep with a flat base. The skeleton of an adult, aged 18-25 years at death was up to 20% complete and was identified as a probable female. The head was at the south-east end and the body lay supine, extended, with the arms at its sides. A brooch <Cu58> was located at the right shoulder. A chatelaine with possible keys <Cu60> lay by the left arm, partly overlying a workbox <Cu59> (Fig 7.14). All artefacts were recorded under context H[3033]. The grave fill was mid grey-brown silty clay.

Finds catalogue

<Cu58> ?linked pin, chain and ring, copper alloy. Not joined together, three parts. Found over right shoulder:
Two lengths of chain made comprising 10 links and 6.5 links. S-shaped links form a figure-of-eight. Links move with ease, *c.*5mm long, 2mm wide. H[3033].
Circular ring, made from circular sectioned wire, *c.*1mm thick; terminals twisted around ring twice for closure, 8mm in diameter. H[3033].
Pin, incomplete, both terminals missing. Circular sectioned shank, *c.*38mm long, 1.5mm thick. H[3033].
<Cu59> Cylindrical copper-alloy container, probably workbox, with lid. Decorated with five rows of repoussé dots. Associated copper-alloy links, iron links and other fittings. Mineralised textile remains on surfaces. 37mm high, maximum diameter of 45mm, 0.5mm thick. H[3033].
<Cu60> Iron rods/terminals, possibly keys. Highly fragmentary. Roughly circular cross-section of *c.*5mm, tapering at the terminals. Mineralised textile remains on surfaces. Max length of 165mm long *in situ.* H[3033].

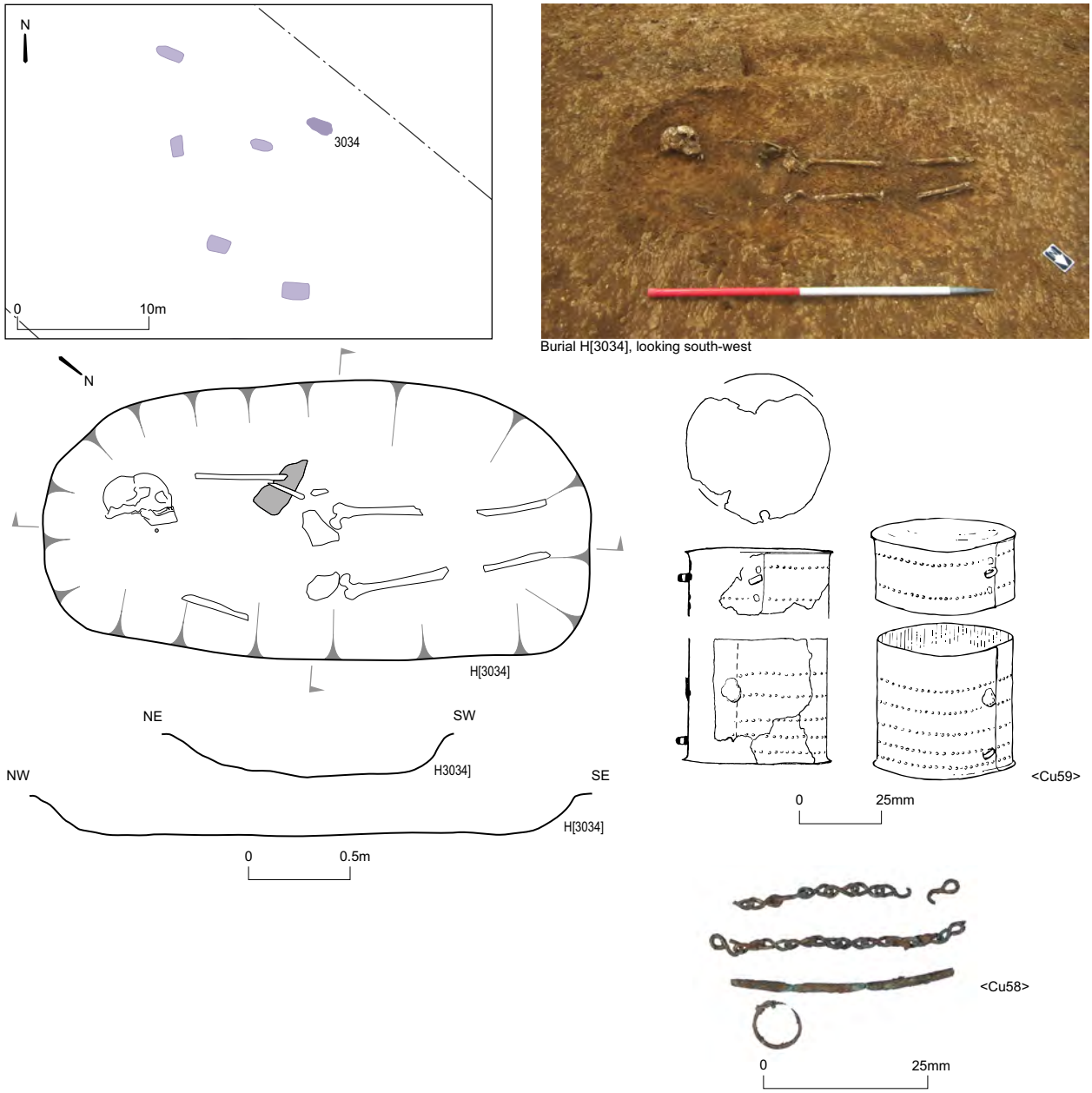


Fig 7.10 Inhumation burial H[3034]

INHUMATION BURIAL H[3035]

Type: supine, extended
Date: mid–late 7th century
Sex: male
Age: adult (18-25 years old)
Finds: ?iron knife, copper-alloy buckle

A grave lay at the northern extent of the cemetery and was aligned north-west to south-east, oval, 1.89m by 1.02m in plan, and 0.11m deep (Fig 7.11). The sides were shallow and it had an uneven base. The skeleton was up to 25% complete, belonging to an adult male, aged 18-25 years at death. The head was at the north-west end and the body lay supine, extended, with the arms at its sides. A knife <Fe56> was above the left side of the waist next to the arm, and a copper-alloy buckle <Cu57> was adjacent (both artefacts were recorded as context H[3036]. The grave fill was mixed mid grey-brown and mid orange-brown silty clay.

Finds catalogue

<Fe56> Knife, iron. Found over left hip, pointing towards head. Complete with rectangular-sectioned tang, central to blade with sloping shoulder; back of blade horizontal then angles down to tip. Cutting edge horizontal and parallel to the back of the blade. Whole knife, 137mm long. Blade, 103mm long, 12mm wide, 4mm thick. Tang, 34mm long. H[3036].

<Cu57> Buckle frame/plate, copper alloy. Found adjacent to knife. Complete, but fragmentary. Oval frame with solid sub-circular cross-section, ferrous deposits on the frame indicate an iron pin. Rectangular plate passed through the frame, folded in half widthways. Plate secured to strap by two copper rivets placed at the opposing end to the buckle. Type II.24b-ii (Marzinzik 2003). Buckle, 9mm long, 16mm wide. Plate, 15mm long, 12mm wide. H[3036].

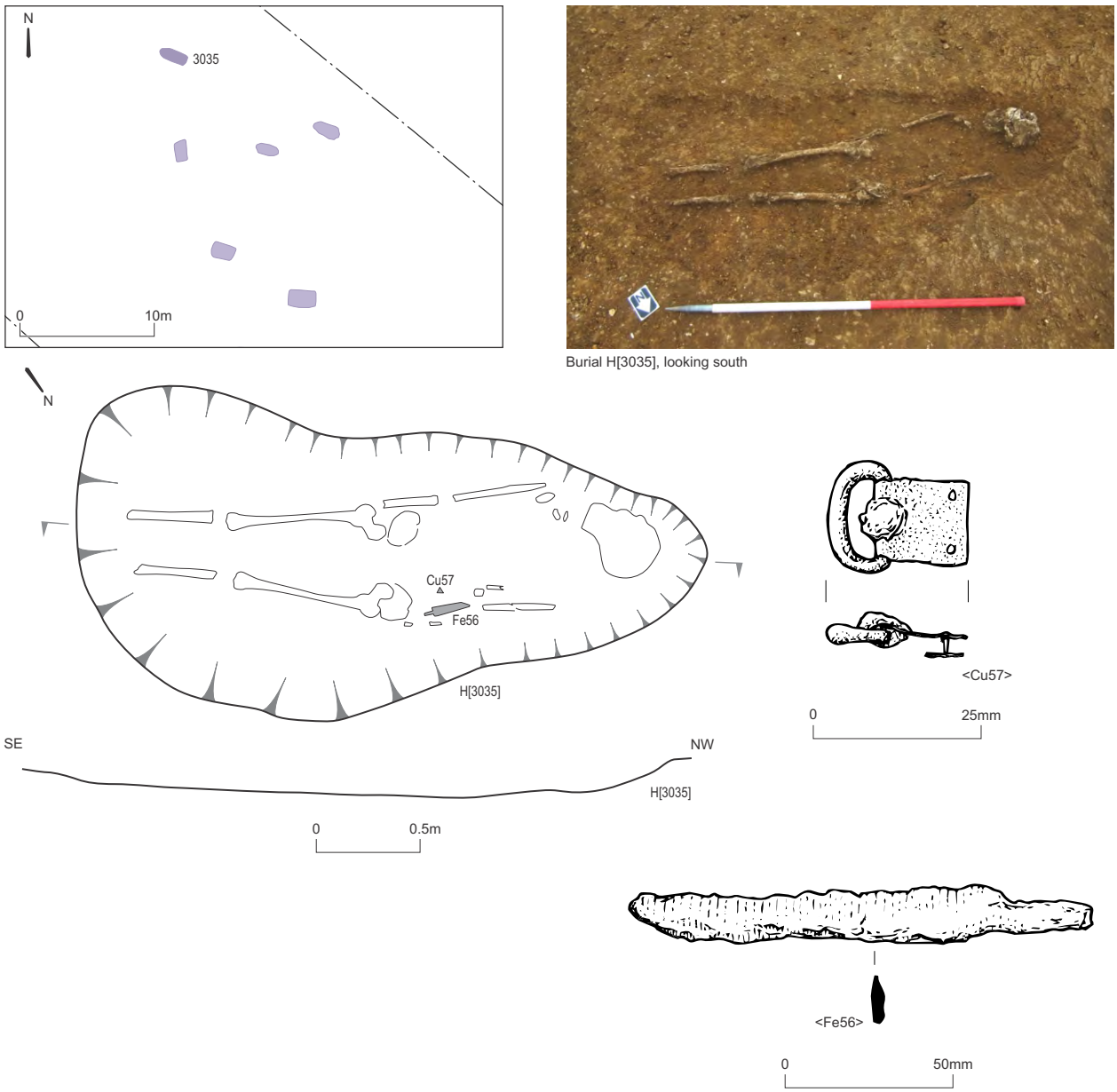


Fig 7.11 Inhumation burial H[3035]

Human remains

by Chris Chinnock

This report contains the results of the osteological analysis and discussion of the human bone assemblage from the burial ground at Site H, comprising nine inhumation burials of eight adults and a sub-adult of 7th-century date.

The nine Saxon inhumations mostly displayed poor levels of bone preservation with only two individuals categorised as moderately well preserved (Connell and Rauxloh 2003, revised 2007). None of the adult skeletons were more than 25% complete; a single sub-adult skeleton was 35-39.9% complete. Two adults were categorised as male, one as female and five could not be described as either male or female due to the incomplete nature of the remains (Table 7.1).

Table 7.1: Demographic profile of Saxon inhumations by sex and age

Age at death	Sub-adult	Male	Female	Undetermined	Total
6–11 years	1	-	-	-	1
18–25 years	-	1	1	2	4
26–35 years	-	-	-	1	1
36–45 years	-	-	-	2	2
≥46 years	-	1	-	-	1
Total	**1**	**2**	**1**	**5**	**9**

Non-metric traits

Of the eight adult individuals, there was one instance of bilateral mastoid foramen and one example of a double facet on the right side of the 1st cervical vertebra was noted in adult individual.

Palaeopathology

Dental disease

The dentition of one sub-adult with 11 deciduous and 12 permanent teeth, and eight adults with 156 permanent teeth were observable at analysis.

The most prevalent form of dental disease was calculus, characterised by mineralised deposits of plaque adhered to the surfaces of the teeth. Sub-adult H[3020] displayed calculus on a number of teeth. Adult individual H[3005] displayed two cavities and calculus was present amongst five adults. Hypoplastic enamel defects were present in the dentition of three adults. Periodontal disease was noted in the dentition of the adult individual from H[3017]. The true prevalence rate for calculus in the sub-adult deciduous teeth was 18.2% and for sub-adult permanent teeth was 16.7%. In the adult dentition the true prevalence rate for dental cavities was 1.3%, calculus 16%, enamel hypoplasia 1.9%, and periodontal disease 1.5%.

A single example of a rotated mandibular left canine was present in female individual H[3034], aged 18-25 years at death. The tooth was distally rotated by *c.*45°.

Trauma

Adult male H[3017], aged ≥46 years at death, had an unhealed wound to the medial part of the right parietal at the top of the skull (Fig 7.12). The lesion comprised a square penetrating lesion, 17.80mm by 17.45mm. Due to poor preservation and significant taphonomic erosion, the margins of the lesion are not clearly visible, but appeared to be sharp-edged with no evidence of new bone growth; suggesting that this injury was sustained at or around the time of death Radiating fractures were present at the right antero-lateral and both postero-lateral corners of the lesion. There was no evidence to suggest that post-mortem damage or intrusive activity such as the hammering of stakes or posts into the ground may have resulted in these bone changes. The mechanism of such a blow is uncertain and it remains unclear whether this wound reflects intentional blunt or sharp force, impact from a falling object or the individual falling to impact with a stationary object.

Fig 7.12 Superior view of the skull, anterior is at the bottom, H[3017]

The shape of the lesion does not match the profile of any contemporary weaponry, although a wide array of everyday tools would be capable of delivering such a blow.

SPINAL AND EXTRA-SPINAL JOINT DISEASE

Three individuals showed evidence of spinal joint disease, comprising degenerative osteoarthritis, osteophytes and intervertebral disc disease. Adult H[3026], aged 36-45 years at death, displayed moderate osteoarthritic changes at the atlantoaxial articulation between the first cervical vertebrae and the base of the skull. Adult H[3031], aged 36-45 years at death, displayed slight to moderate osteophytes and severe intervertebral disease on the vertebral bodies of the upper cervical vertebra. Adult male H[3017], aged 46 years or over at death, displayed moderate osteophyte formation between the fourth and fifth lumbar vertebrae.

Due to the poor preservation of the bone, very few joints and/or articulation surfaces were present. Adult H[3031] displayed a patch of eburnated bone at the centre of the left femoral head; this may have extended further but poor preservation and large erosive lesions may have destroyed much of it. It is unclear whether this individual suffered from degenerative osteoarthritis prior to the erosive lesion or whether the degenerative bone changes were secondary to the circulatory disease discussed below.

CIRCULATORY DISEASE

Adult H[3031] displayed several healed erosive/necrotic lesions to the inferior half of the left femoral head (Fig 7.13). These lesions had coalesced into two main erosive pits, the larger of which measured approximately 30mm in diameter and approximately 11mm deep at its greatest point. Proliferative new bone growth was present in the centre of the lesions and at the superior border of the largest lesion. This has been described as possible case of avascular necrosis of the femoral head, a condition whereby interruption of the blood supply following a fracture or dislocation, can lead to destruction of the affected bone (Jaiswal 2014).

Fig 7.13 left: superior view of the left femoral head, right: superior margin of the left acetabulum, H[3031]

NEOPLASTIC DISEASE

Adult H[3031] displayed a well-healed lesion on the superior margin of the left hip joint (*acetabulum*) (Fig 7.13). The circular hollow lesion is 19.31mm by 12.63mm and *c.*16mm deep. The cyst extended into the superior margin of the acetabulum and its margins comprised dense cortical bone with well-rounded edges. This may represent a possible *ganglion cyst.* These cysts produce soft tissue masses and can cause bone resorption and periosteal new bone growth (Walker 2012, 222); they often arise from tendons, muscles or cartilage and may be caused by tissue degeneration or synovial herniation. Ganglion cysts located at the hip joint have been associated with chronic developmental dysplasia (Resnick 2002, 4176, 4178), although there was no evidence of developmental defects in this individual.

OTHER PATHOLOGICAL CONDITIONS

Adult female H[3034], aged 18-25 years at death, displayed porous lesions in the right-hand orbital roof, characteristic of cribra orbitalia. The lesions were scored as grade 1 capillary-like impressions on the bone surface (Stuart-Macadam 1991). The presence of cribra orbitalia is associated with iron deficiency anaemia and may reflect dietary deficiency, blood loss and/or malabsorption due to gastrointestinal infections (Roberts and Cox 2003, 234).

OSTEOLOGICAL DISCUSSION

Eight adults and one sub-adult were excavated at Site H. The burials have been dated following analysis of the associated grave goods (see below). It was possible to assign biological sex estimations for three adult individuals: two males and one female.

Dental disease was present within the assemblage and comprised caries, calculus, enamel hypoplasia and periodontal disease. The true prevalence rates (TPR) for dental caries was calculated at 1.3%, which compares to 4.2% recorded for the early medieval period in Britain (Roberts and Cox 2003, 191). The TPR for calculus was calculated at 16%, which compares to 39.2% recorded for the period (*ibid*, 194). Recorded data for the period shows a general reduction in dental disease when compared to the Roman period. The exception to this is dental calculus, which shows a slight increase in the early medieval period (*ibid*, 189). This appears to reflect a change in the dietary make-up for the population which may have included less sweet and starchy foods, though dental hygiene clearly remained poor. Age-related spinal joint disease was noted in three of

the individuals, though poor preservation meant that no comparable data or meaningful true prevalence rates could be calculated. A general reduction in the prevalence of spinal joint disease was also noted, when compared to the Roman period (*ibid*, 195).

Of particular note was adult male H[3017], aged 46 years or over at death, who displayed a square-shaped unhealed peri-mortem penetrating lesion on the skull. It is not clear what implement may have been used to inflict such a wound, though it is likely that alongside purpose-made weapons, many tools or everyday items could have delivered such a blow. Despite having been buried with a spear and knife, care should be taken not to assume that the individual was killed as part of a military engagement. Comparable examples from the Anglo-Saxon period were not forthcoming, though a number of similar wounds were observed in the crania of the individuals excavated from a mass grave associated with the 15th-century Battle of Towton (Fiorato, Boylston and Knűsel 2000). The description of a similar wound on an adult male (Towton 9) at Towton asserts that the primary penetrating wound along with the associated fractures would have resulted in extensive soft tissue damage (Novak 2000, 242).

A second adult individual, H[3031], of unidentified sex, displayed gross pathological changes to the left hip joint. The head of the left femur had significant necrotic lesions across its inferior half, which are consistent with avascular necrosis of the femoral head. This can occur following a traumatic event such as a fracture or dislocation where the blood supply to the area becomes interrupted. Avascular necrosis is most commonly observed in the major joints such as the elbow, knee and hip (Ortner and Putschar 1981. 236). A hollow lytic lesion was present at the superior edge of the acetabulum and has been described as a possible ganglion cyst. The aetiology of the cyst and any possible relationship to the pathological changes present on the femoral head remains uncertain.

Saxon grave goods from inhumation burials
by Tora Hylton

Grave goods were recovered from all of the burials and the range of artefacts includes items that would have been worn as part of everyday dress (buckles, dress pins, pendants, rings), personal equipment/tools (workbox, keys) and weaponry (knives, spearhead). The type and range of finds forms an assemblage consistent with 7th-century burial practices. This is supported by the presence of a Swanton Type C2 spearhead and a workbox, which date to the mid–late 7th century. The range of finds may be compared to artefacts recovered from other Saxon cemetery sites in the Anglian region. No accessory vessels were recovered but pottery from four of the inhumations was residual from the late Iron Age–early Roman period.

Eight graves contained the remains of adults and of that number four burials contained an iron knife and a single buckle/plate manufactured from iron or copper alloy and no other artefacts. One burial contained only a knife. Two burials contained fragmentary rings and possible pendants, items characteristically associated with dress jewellery, while the latter also included a spearhead and a knife. The burial of an adult probable female contained a chatelaine complex, comprising a silvered/tinned copper-alloy workbox, possibly with keys and a link pin.

One grave contained the remains of a sub-adult, aged 6-11 years. The associated grave goods did not appear to differ from those of the adults; the burial was furnished with a knife, a copper-alloy buckle/plate and possible pendant.

Spearhead

A spearhead was recovered from grave H[3017]. It had been placed parallel to the body on the left hand side and its presence is presumably an indicator of the status of this individual. The grave containing the spearhead also produced a knife, a copper-alloy buckle/plate, a copper-alloy ring and possible pendant fragments. The spearhead is lanceolate (leaf-shaped) in form and typologically it equates to Swanton's Type C2 (1974, fig 2), which is the commonest form of leaf-shaped blade found in Saxon graves. Although the form was in use throughout much of the Saxon period, there is a lot of evidence to indicate that they are predominantly 7th century in date (Swanton 1974, 10). The spearhead is *c*.323mm long, which is at the middle–upper end of Swanton's size range. Ferruginous wood deposits survive in the socket and these have been identified as *Fraxinus excelsior* (ash), the most favoured wood for hafting according to literary tradition (Owen-Crocker 2011, 206).

Knives

Seven of the nine graves contained knives, all of which have single-edged blades and complete examples measure <160mm long including the tang. Complete blades are *c*.103–120mm long; blade widths are 9–20mm and the back of the blade is *c*.3–5mm. These variations in form and size are only a few of those that would have been in use. Two blade types are present, based on the respective and relative alignments of the cutting edge and the back of the blade. Type 1 has a tang in line with the back of the blade; the back of blade is horizontal and parallel to the cutting edge which curves towards the tip <Fe6>. Type 2 has a tang central to the blade with a stepped <Fe8>, <Fe54>, <Fe70> or sloping shoulder <Fe12>, <Fe15>, <Fe56>; the back of the blade is horizontal then it angles down towards the tip with the cutting edge parallel to back of blade.

Table 7.2: Inventory of Saxon grave goods, Site H

Burial	Sex/age	Finds no.	Small finds	Identification
H[3002]	?/adult 18–25 years	<S6>	iron knife	-
H[3005]	?/adult	<S10a>	silver ring	-
		<S10b>	copper-alloy ring	-
		<S10c>	copper-alloy pendant	-
H[3010]	?/adult	<S8>	iron knife	-
		<S9>	iron buckle/buckle-plate	Marzinzik Type II24a
H[3017]	male/adult	<S11>	iron spear	Swanton Type C2
		<S12>	iron knife	-
		<S16>	copper-alloy buckle/buckle-plate	Marzinzik Type II.24b-ii
		<S17a>	copper-alloy ring	-
		<S17b>	copper-alloy pendant	-
H[3020]	?/ *c*.6-11 years	<S15>	iron knife	-
		<S13>	copper-alloy buckle/buckle-plate	Marzinzik Type II.24b-ii
		<S14>	copper-alloy pendant	-
H[3026]	?male/adult	<S70>	iron knife	-
		<S66>	iron buckle/buckle-plate	Marzinzik Type II 24a
H[3031]	?/adult	<S54>	iron knife	-
		<S55>	iron buckle/buckle-plate	Marzinzik Type I 11
H[3034]	?female/ adult	<S58a>	copper-alloy chain	-
		<S58b>	copper-alloy ring	-
		<S58c>	copper-alloy pin	-
		<S59>	copper-alloy workbox	-
		<S60>	iron rods (?key)	-
H[3035]	?/adult	<S56>	iron knife	-
		<S57>	copper-alloy buckle/buckle-plate	Marzinzik Type II.24b-ii

The positioning of the knives in respect of the body varies across the group. Three knives were recovered from the pelvic area, and of these two appeared to be closely associated with a buckle/buckle-plate close to the tang of the knife. Their position suggests that they may have been tucked into a belt; two of these knives were pointing to the left and one to the right, possibly an indication of handedness. One knife was suspended from the waist; it was positioned between the hip and lower left arm and pointing towards the feet. Two knives were positioned close to the lower left arm, perhaps suggesting either that the knife had been placed in the grave or that it had been attached to the left forearm, as with inhumations at Buckland, Dover (Evison 1987,115). One knife lay under the left-hand side of the rib cage, indicating that it may have been tucked into the rear of the belt.

BUCKLES/PLATES

Six small buckles with attached plates were recovered; three are copper alloy and three are iron. All the buckle frames are oval in shape and have simple plates that have been made from a rectangular strip, which has been passed through the frame and folded in half widthways. The buckles were located close to the pelves, suggesting that they were used for fastening belts.

The copper-alloy buckle/plates are all examples of Marzinzik's Type II.24b-ii (2003, 307). The buckle frames are 7–10mm long by 15–21mm wide, solid with sub-circular cross-sections. Two are furnished with copper-alloy pins and one retains ferrous corrosion deposits, indicating that the pin was made of iron. Buckle plates

are 12–15mm long by 9–15mm wide; all of these have notches cut out for the pin and they are all secured by two rivets positioned along the rear edge of the plate, one has ferrous rivets and two have copper-alloy rivets, the former with domed heads.

The iron buckle/plates are all typologically representative of Marzinzik's Type II.24a (2003, 307). These buckle frames are larger than the copper-alloy examples and are 10–14mm long by 19–28mm wide. The X-rays reveals that two buckle frames still retain an iron pin. Buckle plates are 15–30mm long by 13–20mm wide, and they are secured by two or three rivets positioned along the rear edge of the plate, the latter is secured by three dome-headed tubular rivets.

Workbox

A fragmentary lidded copper-alloy container <Cu59> with associated copper-alloy links, iron links and other fittings was found in the grave of female burial H[3034] (Figs 7.10; 7.14). The box was associated with iron rod fragments <Fe60> that were possibly keys (*c*.100 fragments total). The fragments of the box were positioned within the grave adjacent to the individual's waist, beneath the skeleton's left arm.

The container is more or less complete. It was found lying on its side, crushed and distorted, presumably by grave fill and it is now in over 32 fragments which measure up to *c*.36 x 37mm in size. The box was submitted for conservation by Liz Barham, Lucie Altenburg and Sue Harrington (see below).

Dimensions taken prior to excavation and during conservation indicate that the container measured *c*.37mm high and *c*.45mm in diameter when complete. The container is composite in construction and has been made from four individual pieces of sheet metal which have been cut, rolled and worked to form a small cylindrical container secured by rivets and solder. In addition there are two rivet/loop fittings which would have permitted the attachment of copper alloy and ferrous chain links for suspension. All external surfaces and the internal surface of the base have been tinned. There is evidence for the presence of mineral preserved organics in the form of textiles surviving in corrosion deposits.

The lid has been made in two pieces (the top of the lid and the side). The top of the lid is a plain flat circular disc measuring 45mm in diameter. The side of the lid is made from a rectangular strip which has been rolled to form a ring (height: 20mm) with the over-lapping ends (*c*.5mm) secured by two copper alloy rivets set 8mm apart. Where the ends of the ring overlap and situated between the rivets there is a rivet with an integral loop. To this has corroded a circular-sectioned rod fragment with curved profile, this is presumably part of a ferrous chain link. The lower edge of the ring is plain to fit over the top of the container and the upper edge of the ring has been folded out to form a flange (measuring *c*.3mm), to which the outer edge of the disc would have been attached (by solder), thus forming the lid. The x-rays of the lid fragments suggest that the lid would have fitted over the upper edge of the container to a depth of *c*.5mm. The vertical sides of the lid are decorated with two circumferential horizontal rows of repoussé dots.

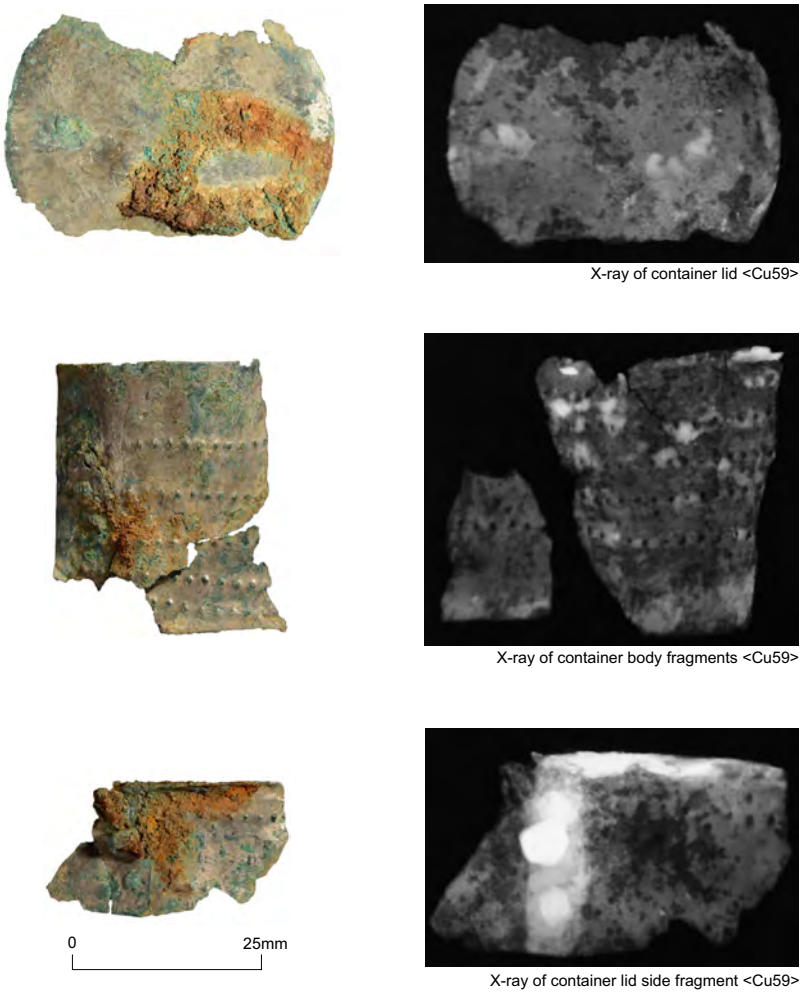


Fig 7.14 Copper-alloy workbox <Cu59> from burial H[3034]

The container body is made from a rectangular sheet of copper alloy which like the lid has been rolled to form a cylindrical ring (height: *c*.37mm) with overlapping ends (*c*.8mm) secured with rivets. One rivet is extant and it is positioned *c*.16mm from the top edge of the container and survives with vestiges of the overlap protruding beyond the rivet edges. The exterior surface of the container is decorated with a simple motif of five circumferential horizontal rows of repoussé dots, a similar motif can be seen on a container from the Anglo-Saxon cemetery at Burwell, Cambridgeshire (Lethbridge 1931, fig 36, 1). Other examples with not dissimilar motifs have been recovered from the nearby cemetery at Marina Drive, Dunstable (Matthews 1962, fig 4, 8) and Updown, Kent (Crowfoot 1987, fig 6.1, 2).

On the broken edge of one of the container fragments (#9), in line with the overlap, there is a vestige of a small semi-circular notch. The circumferential edge of the notch has been pushed through towards the inside surface, perhaps indicating that this is where the second (now detached) rivet/loop fitting would have been placed. This fitting also retains the remains of a corroded ferrous rod (link) and it is identical to that seen on the lid. If correct, then the rivet/loop fittings on both the lid and the container were attached *c*.6mm from the top edge of the lid and the bottom edge of the container, ensuring that the container would be balanced if suspended by chain links horizontally.

The base of the container is badly crumpled and like the top of the lid comprises a circular disc which probably also measures *c*.45mm in diameter. Both interior and exterior surfaces of the base have been tinned.

Also associated with the box are three copper-alloy figure-of-eight links; they range from 12mm-16mm in length and 4mm-6mm wide. Two are attached to the remains of ferrous links and loops which probably relate to ferrous chain links for suspending the container and/or the terminals of keys.

In addition to the box itself there are over 40 individual iron rod and loop fragments measuring up to c65mm in length and mostly laying in the outside of left arm <Fe60>. The x-ray reveals that short lengths of parallel broken rods have corroded together in five pairs. One fragment appears to have a twisted shank, while others with curved profiles appear to form loops possibly for suspension. One fragment has a double-looped terminal. It is probable that these fragments are the remains of keys. Evidence for the presence of mineral preserved organics in the form of textiles survives in corrosion deposits.

Containers of this type are relatively rare. A corpus of published examples by Anthony Gibson indicates that as of 2015, *c*.46 virtually complete containers have been identified, along with nine fragmentary examples (Gibson 2015, table 1, 150). They are generally thought to date to the late 7th and 8th centuries and they are nearly always associated with Anglo-Saxon graves containing the remains of females or children. Three different types have been recognised, classified by Gibson according to their construction, design and appearance (*ibid*, 149-50). This example represents Gibson Type I, the most abundant type represented, with 36 other known examples. Their use, contents and decorative features have been discussed at length over the years by numerous authors, including Crowfoot (1987), Evison (1987), Gibson and Harris (1994) and more recently Hills (2011) and Gibson (2015). They have been interpreted as Christian reliquaries/relic-boxes as well as work and sewing boxes, since they often contain fragments of textile, thread and pins. Seeds are also known. A majority of the containers are decorated with a variety of motifs formed from repoussé punched dots on both the top and sides of the lid and the body. On this example, unlike many of the others, the top of the lid is plain, while others have lids that are furnished with a repoussé cruciform motif, a feature giving rise to the idea that some of them may be Christian reliquaries (Hills 2011). However, Gibson does not agree that all Type I boxes served as reliquaries and has postulated that some examples are so worn, that they may pre-date the conversion period and have been used in a Pagan setting (*ibid* 2015, 158).

CONTAINER METAL ANALYSIS

BY LIZ BARHAM, LUCIE ALTENBURG AND SUE HARRINGTON

The container body and lid are made of copper-alloy sheet, however, renewed X-ray images of the object indicate that the metal is almost entirely mineralised so there is little potential for a detailed identification of the alloy.

All the fragments are thinly coated on the outer surface with a white metal. A fragment of the container was analysed by pXRF (portable X-ray fluorescence) to identify the coating and it was found to be tin. The possible base fragment was found to be tinned on both sides. All other fragments of a size large enough to distinguish the exterior from the interior surface by their form and decoration are uncoated on the inner surface.

MINERAL PRESERVED ORGANIC REMAINS
BY SUE HARRINGTON

Mineralised textile

Mineralised textile and textile weave were noted on the exterior surface of one fragment of the container and a possible fibrous area on another. Some individual strands were also observed on fragments and in the loose associated soil.

Additionally an undefined bright orange coloured "wash" found on the exterior surface of six other container fragments. It was noted that this may be indicative of the remains of textile that has not survived with any identifiable definition. "Weave-like" structures were observed on interior surfaces.

Further fibre or textile evidence was noted on the surfaces of almost all of the identifiable iron or copper/iron composite links/fittings during the conservation examination, and on other iron rod and related fragments. Six fragments had a possible fibrous orange "wash". Only some of these were sufficiently well preserved for textile features to be recorded by the specialist (see accompanying digital content package).

Other organics

There were mineral preserved pupa cases, or impressions of these on the inner and outer surfaces of many of the fragments of the copper-alloy container, indicative of insect larvae activity which will have contributed to the degradation of organics associated with the object in the ground. Some samples of better preserved examples have been retained for reference. Where pupa cases were removed it was found that there was no significant organic matter surviving beneath.

There were a few flecks of mineral preserved wood on the outer surface of three fragments. These are small and disturbed by insect activity and there is no other apparent wood survival in this area of the grave so identification of the wood, if it proved possible, is unlikely to be useful to the interpretation of the group.

There were some mineralised thin and random strand formations on the interior surface of one of the copper-alloy fragments. These were identified by specialist in archaeological organic artefacts Dr Esther Cameron as worms/nematodes related to the decay products in the grave (E Cameron, pers. comm).

MINERALISED FABRIC ANALYSIS
BY SUE HARRINGTON

BROOCHES WITH MINERALISED FABRIC

FE55 SMALL IRON BUCKLE LOOP (MARZINZIK TYPE I.11)

Poorly preserved cloth was present over the face of the buckle loop, but not in a recordable form. It appears to be a coarse cloth with soft, plump threads. On the underside of the object was a mineralised area, 17x18mm, overlain by another organic in places, probably human skin. The underside of the cloth was partially visible but only one system was recordable. It is a plain weave, z/? spun with a thread count of 27/? (based on eight threads on 3mm). The spin is slight with some fraying of the fibres visible. It is a fine, closely woven cloth with some variability in the thread diameters, hinting at a decorative construct.

FE66 SMALL IRON BUCKLE LOOP AND PLATE (MARZINZIK TYPE II.24A)

On the face of the object, this fragment overlies the surface of the buckle loop and plate with an area of 23x19mm. It is mineral preserved and has no precise recordable features. However, it appears to be a fine plain weave, with an estimated thread count in excess of 20 threads per cm in both systems. Overlying this are two pairs of thicker strands, one pair lying lengthways central to the plate, the other pair winding round horizontally at the junction of the loop and plate. As no spin was visible it was surmised that these were possibly of leather. Each of these strands has a diameter of 1mm. On the underside of the object a fragment overlies the entire underside of the loop and plate, with an area of 25x19mm. It is a mineral preserved plain weave. There is only a slight z/z spin on the threads (that is, z spun in both systems), with an appearance of fraying to the fibres. The count, based on a small visible patch, was 27 (eight on 3mm)/18 (five on 3mm) threads per cm. It comprised a single layer of a close, regularly woven cloth.

ANALYSIS

Fe55 was located at the centre of the waist of a female aged 18-25 in a supine and rather splayed position. The fineness of the weave suggests a costume grade cloth on the underside, but with a possible coarser cloth overlying this. The attributes of the cloths are similar those found on the workbox and rods Cu59. For burial H[3031], it is not clear how these cloths were used in the burial. There is no evidence for a belt, although it must be assumed that the buckle was used to hold the cloth around the body.

The closest comparison for this cloth type on a buckle is a plain weave 28/24 on a centrally placed buckle loop and plate in a male burial grave 2 at Coddenham, Suffolk (Walton Rogers 2011), a cemetery which was broadly contemporary with the Site H burials.

Fe66 was located at the left waist of an unsexed adult in a flexed position H[3026]. The cloth has similar attributes to that hosted by Fe55 and can be similarly compared to the male burial from Coddenham. The function of the binding threads is unclear, but may have been used to hold the buckle in place – the exact configuration and purpose could not be established. Only one other example of threads over an iron buckle could be located, with a sub-adult in grave 15 at Westgarth Gardens, Bury St Edmunds (Crowfoot 1988), but again an exact purpose could not be determined. That burial also contained an iron knife as the only other grave good.

DISCUSSION

The cloths on both objects show signs of wear, indicating that they were not new when deposited. The use of plain weaves in association with buckles in burials of the 7th century can in some instances be taken to indicate male burial garb, although these seem to be generally coarser, the Coddenham example being therefore something of an exception. The cloths cannot be taken as clear indicators of a costume type, rather as evidence for the preparation of the body for the burial. It is of interest to note that the same cloth types may have been used in both male and female burials in the Anglian region. These examples fit within emerging regional traits in the use of cloths for burial.

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS
BY VAL FRYER

Thirteen samples were processed and analysed from Saxon inhumation burials (Fryer 2016, table 64). None of these flots produced material worthy of quantification and further examination.

The assemblages are extremely limited in composition, although comminuted fragments of charcoal that are probably derived from wind-dispersed detritus are present throughout. A few cereal grains are likely to be residual and do not have any particular significance. Small pieces of vesicular bone derive from the fragmentary state of the human remains.

DISCUSSION

The burial ground contained the remains of eight adults and one sub-adult. It is possible the entire cemetery site was uncovered within the road scheme and this group of nine comprised the only interments, although it may also be that further burials lie to the north beyond the limit of excavation (Fig 7.2). The cemetery layout was fairly neat, with graves situated roughly equidistant with no intercutting, although no distinct rows were visible. The burials were supine and extended and the orientation of the graves was varied with seven aligned north-west to south-east, with the head at the north-western end in four cases and at the south-eastern end in three cases. One burial was aligned east to west, with the head to the west. Only one burial was aligned north to south with the head to the south, and, perhaps coincidently, this was the only sub-adult burial within the cemetery. All of the graves were furnished in such a way that suggests the bodies were laid in their graves fully dressed as in life, including minor ornaments like pendants and rings, clothes fasteners like buckles, and with utility knives. One grave had a spearhead, and one a workbox and possible keys.

The Site H cemetery has been dated to the mid to late 7th century AD and probably falls within the typology of mid Anglo-Saxon cemeteries with furnished graves often referred to as 'Final Phase' cemeteries (*i.e.* the final phase of furnished burial) within the conversion period. Early, middle and late Saxon burial grounds are not commonly found within the area nor widely known in the county. Despite this, a few suitable comparison sites have been identified. The Site H burial ground is situated *c.*0.8km south-east of the centre of Chalton and is similar to other open-ground cemeteries which have been observed to lie some distance from settlements. At Southam and Ratley, Warwickshire, for example the burial grounds lay 0.90km to the south-west and north respectively of the centre of present day settlements (Egan and Atkins in prep; Palmer 2011). At Great Houghton, Northamptonshire, an open-ground cemetery was *c.*0.80km to the south of the medieval settlement within an open area (Chapman 2001).

It has been noted that conversion-period cemeteries were more highly organised than earlier Saxon burial grounds, with graves arranged regularly sometimes in rows, and the bodies positioned in a more uniform manner, usually supine and extended, and west to east aligned, in a way which is often seen as the precursor to later more structured churchyard burial (Buckberry 2010, 2). Contemporary examples, which may have included early Christian burial, includes the graveyard at Marina Drive in nearby Dunstable where burials were laid mostly in rows, including a long row of burials aligned east to west (Matthews 1962, fig 1). In the mid 7th century, during which time the cemetery at Site H was in use, lay burial in church or churchyard was exceptional whereas by AD850 it was starting to be the norm (Blair 2005, 228). The move from burial in open-ground cemeteries to churchyard was slow.

Site H conforms with a pattern observed for other unenclosed burial grounds of this period in serving a small population, comprising eight adults and

one sub-adult, interred within a *c.*40m by 25m area (Blair 2005, 238). At Biscot Mill, Luton, eleven burials excavated between 1923 and 1970 were found to contain a few grave goods including weapons and a pot of 7th-century date (Hagen 1971). A small 7th-century Anglo-Saxon cemetery was excavated in Harrold in the mid 20th century, although this burial ground was associated with possible habitation in the form of two sunken-featured buildings (Eagles and Evison 1970). Other small inhumation cemeteries have been found in neighbouring counties, such as at Southam in Warwickshire, where a small cemetery of 13 burials consisted of eight adults and five sub-adults buried within an area of *c.*30m by 13m (Egan and Atkins in press). At Great Houghton, Northamptonshire, 17 adults and six sub-adults were laid within an area *c.*15m by 10m (Chapman 2001), although this cannot be strictly identified as a Final Phase cemetery as all 23 burials were without grave goods (Chapman 2001 including fig 10). One burial at Great Houghton was radiocarbon dated to AD655-705 (Beta-116572). There are only two known open-ground cemeteries from Warwickshire: at Ratley, seemingly were without grave goods (Palmer 2011) and at Southam where one burial had an amber bead and a knife (Egan and Atkins in press).

Some larger cemeteries are also known from the vicinity, and these often provided a larger and richer array of grave goods. At Marina Drive, Dunstable, 49 skeletons, part of a larger cemetery, were excavated in 1957 (Matthews 1962b; Brothwell 1962). Three Type I workboxes were found and one of the graves (E1/2), which contained a workbox, was radiocarbon dated to cal AD 650-675 (95% probability, UB-4550 and UB-4551; Hines *et al.* 2013, table 7.1). The small Anglo-Saxon cemetery, possibly 7th century, excavated in Harrold was situated around a former Bronze Age barrow; unfortunately none of the burial alignments of the 13 excavated burials could be recorded. The most complete skeletons were identified by osteological analysis to comprise at least three male, three female and two sub-adults. Where recovered the burials contained a mixture of grave goods, some of which notably comparable to Site H. Grave 8, for instance, produced a bronze ring and glass bead, Grave 14 was furnished with a cabochon garnet pendant, two silver rings and a bronze ring, and three other graves had iron knives. Grave 3 contained a spearhead, but was also furnished with a sword, an iron bucket, hone-stone, heckle, knife and glass bead, leading this to be identified as a later inserted Viking burial of the 9th century. Unassociated finds which due to the excavation conditions could not be linked to a specific burial comprised many glass beads of different colours, a bronze buckle, a bronze ring and iron knives (Eagles and Evison 1970).

Another notable aspect of the Site H burial ground is the variation in the alignment of the graves (Fig 7.2). Into the 8th century, burials tended to become more consistently west-east orientated. Open-ground cemeteries largely have burials aligned west to east e.g. Bromfield, Shropshire (Blair 2005, 238 and fig 31), Southam, Warwickshire (Egan and Atkins in press) and Great Houghton, Northampton (Chapman 2001). Within the county, two burial grounds situated only *c.*11km to the west of Site H at Chamberlain's Barn, Leighton Buzzard, may demonstrate this development (Hyslop 1963, figs 2 and 3). The poorly dated Anglo-Saxon Cemetery 1, but probably late 6th to early 7th centuries, was very similar to the burial ground at Site H. It produced 18 scattered burials with a high degree of variation in grave orientation, even more so than at Site H, with finds including iron keys, buckles, and a spearhead, as well as beads, pottery and a drinking cup. A short distance away lay Cemetery II of the mid/late 7th century, which was noticeably more strictly laid out than the smaller burial ground at Site H, with almost all of the 63 burials aligned north-east to west-south, with head to the south-west in partially defined rows. Around seven burials deviated from this pattern, either having heads to the north-east or being aligned north-south or more strictly east-west. At Cemetery II, a number of similar grave goods were identified, including buckles and knives, as well as very different objects including large quantities of beads, wire rings, shield bosses, brooches, whole pots, linked pins, a bucket and horse equipment. Two wooden chests with iron fittings were described, along with possible bronze 'thread boxes' but it is not clear if these bore any similarity to 'workboxes' (*ibid*).

While defining Final Phase burials, traditional scholarship has focused on the use of such sites to map religious conversion. However, more recently, burials of this period have been associated with changes to 'mentality and ideology' rather than more strictly with a change to religion or society (Geake 2003). While the oft-touted date of AD653, provided by Bede, has been linked to an increased tolerance of Christianity under King Penda, (Bede, *Hist Ecc*, 176-7), this is, of course, far from a clear indication of the religious leanings of the inhabitants of the Kingdom of Mercia, including Bedfordshire, in this period, a subject which at best can be described as 'ambiguous' (Meaney 2003, 240-1). While it has been proposed that this sort of Final Phase burial ground somehow maps religious conversion by representing the transition between a Pagan furnished burial tradition of the 5th-6th centuries and the later Christian formalised cemetery, it has been determined that the church itself likely had little influence over burial rites in this period (Geake 2003, Hadley 2001). Other explanations than religion have therefore been sought for this shifting pattern of grave goods and burial practice (Williams 2010, 27). Possible aspects affecting burial rite in this period may include socio-economic pressures brought about by political changes, increase

in social stratification, alterations to law, inheritance, land use and ownership; as well as societal shift in the understanding of gender, status, age and ethnicity, and the use of symbols and mortuary practice to present and mediate these identities (Williams 2010, 27; Härke 1992, 149).

Grave goods were a notable part of the burial rite at Site H. All nine burials contained metal artefacts which either formed part of the burial clothing (buckles, dress pins, pendants and rings) and/or comprised other grave goods such as personal equipment, tools and weaponry. Seven of the graves contained knives. Together the type and range of finds form an assemblage consistent with Final Phase burial practices (Williams 2010, 26). It is thought that the burial ground probably went out of use before the 8th century as few personal items, except for occasional knives, were placed in graves within either minster or open-ground cemeteries after about AD720 (Blair 2005, 240). Blair (2005, 240) states that open-ground cemeteries of the c.AD670–720 produced an average of 55% of burials being furnished and 25% which only contained knives. Recent work has narrowed the end of furnished burial even further by suggesting that the inclusion of grave goods within burials really ended two decades before the end of the 7th century (Bayliss and Hines 2013, 554).

The presence of the 'weapon burial rite' which lingered on in the graves of certain adult males into this period (Härke 1992), is demonstrated by the inclusion of a spearhead in burial H[3017]. Williams (2010, 26) also notes the deposition of various kinds of containers like buckets, cups and caskets in graves during this period, a rite also demonstrated at Site H with the inclusion of the Geake Type I copper-alloy workbox in grave H[3034] (1997, 80). The unfortunately poor condition of finds in both of these 'wealthy' graves prevent the antiquity of these objects being examined to determine if they may have had a lengthy 'use-life' or a period of curation before burial. Either way, both spear and workbox are thought to date to the 7th century, and it is on this basis that the cemetery has been dated. Both objects might correlate with the use of graves as a method of social display, and as a vehicle for renegotiating and expressing concepts of 'personhood' and identity (Williams 2010, 27).

Understanding the inclusion of various grave goods within graves in this period is a multifaceted issue which has been discussed through a wealth of scholarship. Understanding of the prevalence and meaning of spearheads, swords and other martial items within graves of this period was advanced by the work of Härke (1990). From his 1990 study of 47 cemetery sites, 702 burials were accompanied by weapons, comprising nearly half of all identifiable adult male inhumations. Of these burials, spears were by far the most common weapon type, forming four-fifths of mortuary weapons (*ibid,* 25). Geake (1997) determined that Swanton Type C2 spearheads, such as the example from H[3017] are the most commonly deposited type in conversion period graves. Spearheads are most usually found lying by the right shoulder (Härke 1990); this example on the left shoulder is a less frequent positioning. Despite this, there was a notably high degree of variety, both chronologically and geographically, in Anglo-Saxon weapon burials from their earliest occurrence in the 5th century to the latest examples at the end of the 7th or early 8th centuries.

Härke has criticised the basic premise of the 'warrior grave' argument; that is, the implicit understanding that weapons in graves represented the personal arms borne and used by the deceased; in many cases the individual within the grave would have been incapable through age or infirmity of wielding the weapon. Further to this, the simple link between weapon burials and warfare has also been critiqued by demonstrating the inverse correlation between historically recorded periods of martial strife and an increase in weapons interred in graves (Härke 1990, 126; Härke 1992). A number of other observations regarding weapon burials could be shown to be unsupported in the case of Site H: that burials with weapons were, on average, more richly furnished generally than burials without, and that weapon burials were twice as likely to have been interred in coffins. The adult male H[3017] was buried with an iron knife, copper-alloy buckle, ring and pendant in addition to the spearhead, but this was by no means an excessively wealthy combination of goods. Every grave in this group was accompanied by a knife and all but two also had iron or copper-alloy buckles. A copper-alloy pendant and ring also came from Burial H[3005], which also had a silver ring, and burial H[3034] was notably furnished with a decorated workbox. The non-parallel nature of the limbs and the shape of the grave cut additionally support the interpretation that the burial was not laid in a coffin (Fig 7.6).

One notable aspect of burial H[3017] from which the spear was recovered was a square-shaped unhealed peri-mortem penetrating lesion to the top of the skull, which may well have been the cause of death and is tempting to associate with a possible death in combat and therefore equate the individual with the 'warrior' archetype (Fig 7.12). However, Härke notes that traumatic wounds did also not necessarily qualify individuals for burial with martial weapons during this period: of seventeen skeletons with identifiable wounds within his survey group, only five were accorded burial with a weapon (1990, 36). Additionally, Chinnock (above) also observes that there is no necessity for this wound to have been the result of military action rather than the mechanism of an accidental injury, a deliberate injury with a non-martial weapon such as a

tool, or an impact made to the corpse soon after death from another cause.

Another unusual object of note within this group of burials is the workbox, a copper-alloy cylindrical lidded box, possibly lined with or wrapped in fabric. As of 1997, 49 workboxes of this type had been recorded from conversion period burials (Geake 1997, 80), generally falling into two types: Type 1 (such as the example from Site H) with a simple push/pull lid attached by a chain, and Type 2, with a hinged lid. Almost all known examples are of copper-alloy, with a small number being gilded or silvered (*ibid*), and in some instances these are found placed within a box or bag. Mineralized remains of a fine, closely woven plain weave cloth on pieces of the work box may indicate it was also buried wrapped in cloth or a bag (see Harrington above; Hills 2011, 15)

The purpose of so-called workboxes has also been a matter of discussion, mainly concerning whether the objects were designed to be frequently opened as functional containers, or have a more 'amuletic or symbolic' use (Geake 1997, 82). Hills (2011, 18) and Penn (2000, 64) moves towards the interpretation they were small containers containing valuable religious relics. However, less than half of the known examples have cross elements in their decoration, and the evidence does not support an argument that all Type I boxes should be seen as Christian reliquaries (Gibson 2015, 158). Meaney (1981) interpreted the boxes, many of which have been shown to contain fine weave fabric, bobbins, coins or plant remains, as amuletic in a more pre-Christian form, symbolic of female identity and gendered household skillsets. Workboxes in graves are certainly notable as female-linked items. In Geake's 1997 survey, they were always buried with females, or occasionally with children, and other female-linked items were found in all but two of the 22 examples she examined, particularly pins and chatelaines, to which workboxes may have been considered a part. The lengths of chain, copper-alloy pin, and iron rod 'keys' preserved within grave H[3034] may well be associated with the chatelaine object group type, with one or more chains attached to the waist and carrying objects. Chatelaines themselves have been subject to similar debate to workboxes, to whether they present a functional tool set, or a symbol of female authority within the domestic sphere, particularly when found with keys. It is likely both elements were at least partially true, but the inclusion of chatelaines with the graves of children as young as five, and at least in two instances with spearheads, may complicate interpretation (Geake 1997, 132).

Certainly, as Williams describes, grave goods and their usage in Final Phase burials should be understood more than merely as *"'pagan survivals' or as manifestations of 'popular superstitions' but as the results of conscious and strategic mortuary decisions by the living about the identities of the dead"* (Williams 2010, 27, 27).

Medieval settlement at Site Q

Medieval settlement was situated to the north-west of Thorn Spring, which was a moated site that is thought to have been a manor. The excavated site was a fairly narrow rectangular area within the road corridor, *c.*1.10ha in extent (Fig 7.15). Medieval features were relatively limited in number and extent, representing a small settlement and land divisions. Geophysical survey data did not clearly show the archaeological features (Simmonds and Fisher 2008, figs 5-6; PCG 2014, figs 24-25).

The land is flat with a gradual, almost imperceptible, slope south across site, towards a stream channel. The geology is grey-white chalky clay, although a broad area of orange-brown sandy clay and gravel lay across the central portion of the site.

The site produced a small quantity of late Saxon residual pottery, AD850–1066, and further sherds dated the earliest of the medieval boundary ditches to after the Norman Conquest in the period AD1066–1150. However, the majority of finds come from the early part of the 12th century, tailing off by the middle of that century, and with little evidence thereafter until the post-medieval era. During this brief period the site was occupied by a timber-framed building. Several neighbouring boundary ditches suggest that small enclosures lay in close proximity and domestic waste was periodically dumped into the perimeter ditches. The building was demolished in the mid 12th century and most of the boundaries went out of use at around the same time. A ditch cut across the footprint of the former building shortly thereafter and had been filled by the end of the century. No further activity was found on the site until the post-medieval fields were laid out. Two or three of these ditches corresponded with 19th-century Ordnance Survey maps.

Saxo-Norman boundary ditches

A boundary ditch lay at the north-eastern extent of Site Q, aligned north-west to south-east, which was recut (Fig 7.16). Ditch Q[81] had steeply sloped sides and a rounded base, filled with firm grey-silty clay. Four pottery sherds (182g) of the late 11th to early 12th centuries were recovered from the northern end, but generally it seems to have been peripheral to domestic activity.

The recut maintained the width of the ditch, but deepened it with a narrow V-shaped gully at the base, Q[83]. The basal fill remained consistent as a gradual

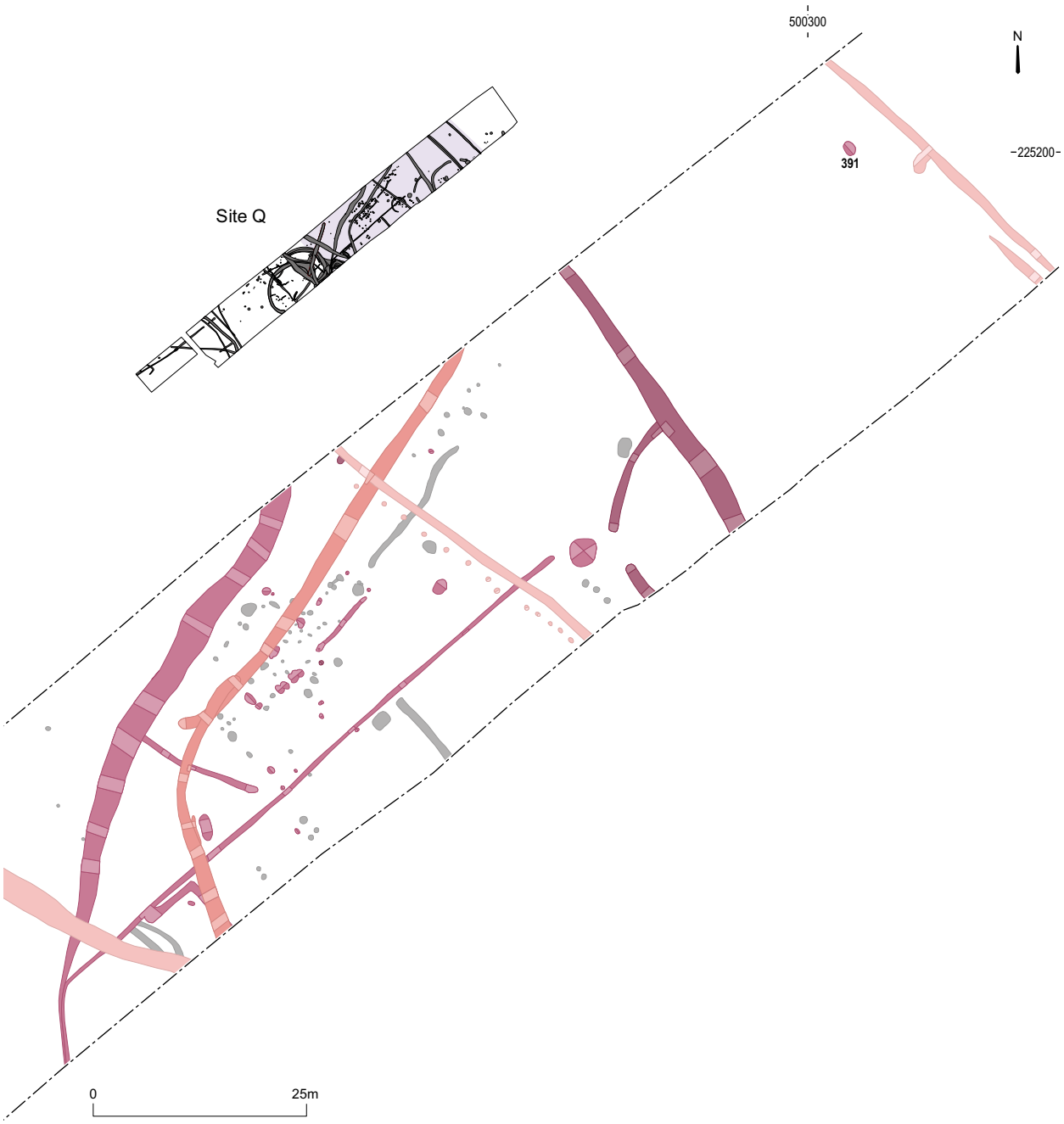


Fig 7.15 Plan of Saxo-Norman, medieval and post-medieval features, Site Q

accumulation of in-wash that grew darker at the surface as more organic components were incorporated. The ditch had not completely silted up before its disuse and the surface fill comprised a single backfill episode of firm dark grey silty clay loam.

AN ENTRANCE INTO A SMALL ENCLOSURE

On the south-western side of boundary ditch Q[81] there was an area enclosed by two curvilinear ditches with a entrance 3.4m wide between the terminals. Both terminals had rounded symmetrical profiles of similar size (Fig 7.16, Q[1054]). Thin lenses of pale white-grey chalky clay silt had eroded from the sides and settled at the base. As the ditches aged more leaf litter gathered within the eroded soil and surface in-wash, so that the bulk of the accumulated fill took on a darker grey-brown hue that merged gradually toward the surface. Finds were sparse, but included a single sherd (2g) of pottery.

PITS AND POSTHOLES

Several dispersed features produced 11th-century Saxo-Norman pottery; two of these were located amongst the postholes and pits of a later 12th-century timber-framed building but the pottery (three sherds, 39g) is probably residual. Posthole Q[771] fell within the

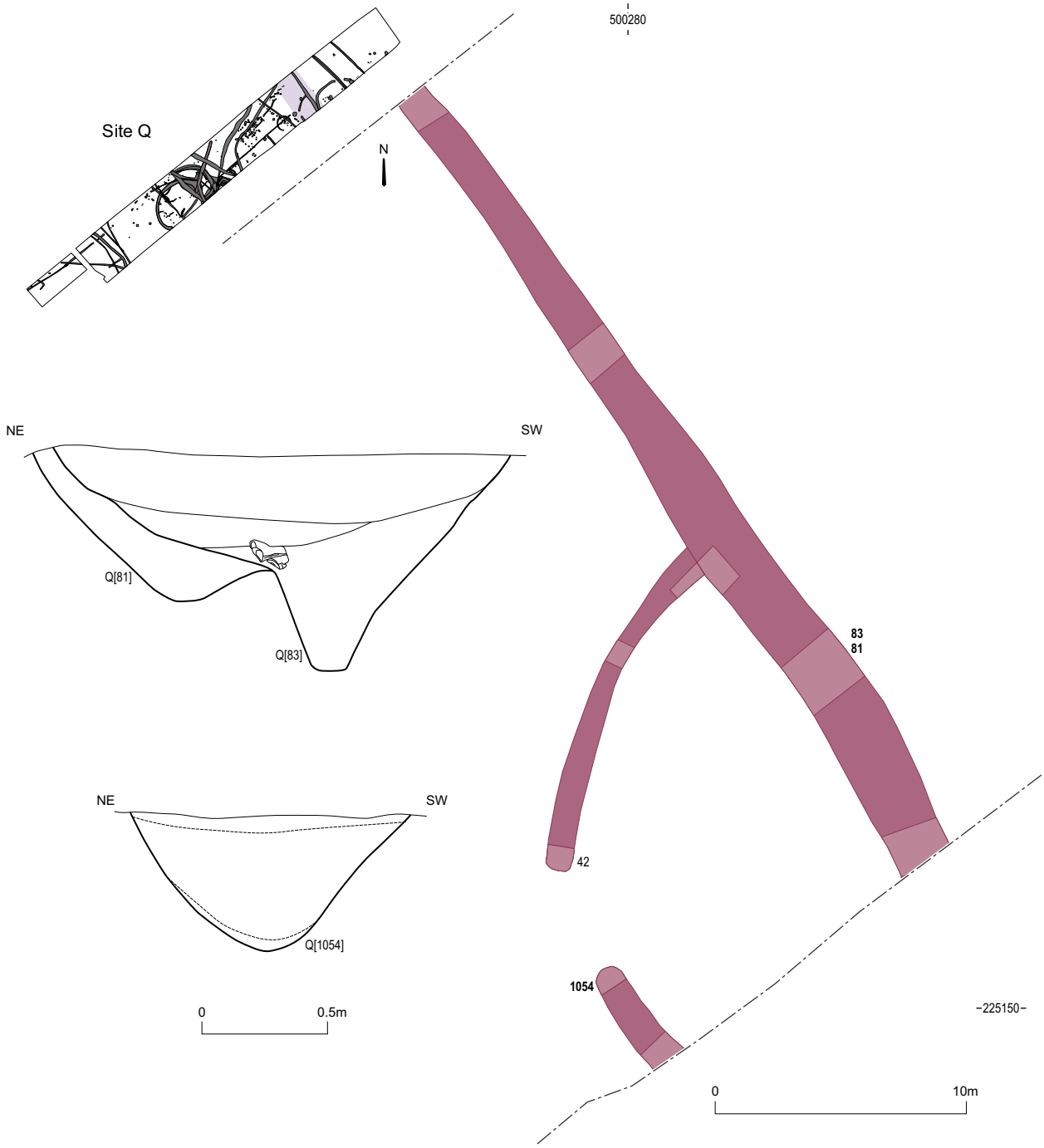


Fig 7.16 Saxo-Norman boundary ditches, Site Q

north-eastern corner of the later building and posthole Q[837] was outside to the south.

Two isolated pits contained exclusively Saxo-Norman pottery; these were located to the west of ditch Q[81] (not illustrated). Pit Q[500] was sub-rectangular in plan with rounded corners, 1.67m long by 0.58m wide and 0.69m deep. The sides were near vertical and the base was flat. The pit contained friable dark brown silty clay loam, animal bone and pottery (12 sherds, 144g), but was heavily disturbed by a late post-medieval hedgerow and ditch.

Pit Q[578] was situated at the southern edge of excavation. The pit was circular with a gently rounded profile, 1.09m wide by 0.37m deep. Dark brown-grey silty clay fill contained animal bone and pottery (three sherds, 116g).

Early 12th-century development

The majority of the pottery, 587 sherds (*c.*9kg), belongs to a single episode of occupation of less than 50 years at the beginning of the 12th century and comprises over 90% of the medieval assemblage. Prominent within

Fig 7.17 Early/middle 12th-century settlement features, Site Q

this phase of occupation was a single timber-framed building (Fig 7.17). To the south of the building minor enclosure boundaries were organised into rectangular plots, whilst the north side was bounded by a broad sinuous boundary that lay eccentric to this otherwise rectangular pattern.

A TIMBER-FRAMED BUILDING

The footprint of the building was distinguishable as a series of postholes, pits and gullies, *c*.18.0m long by 8.0m wide, with two phases of construction (Fig 7.18). The main group demarcated a long narrow rectangular structure aligned north-east to south-west, *c*.18.0m by 4.0m. On its north-west side was a further rectangle of small postholes, *c*.9.5m by 4.0m. Other pits and postholes outside this arrangement, which were more loosely distributed, may indicate ancillary areas of activity such as a fenced yard. Most of the pottery was early 12th century, with some residual sherds noted, but finds on the whole were sparse. The array of postholes within the building footprint were unlikely to have all been contemporaneous, with some posts probably being replacements for earlier posts incorporating modifications and repairs to the structure.

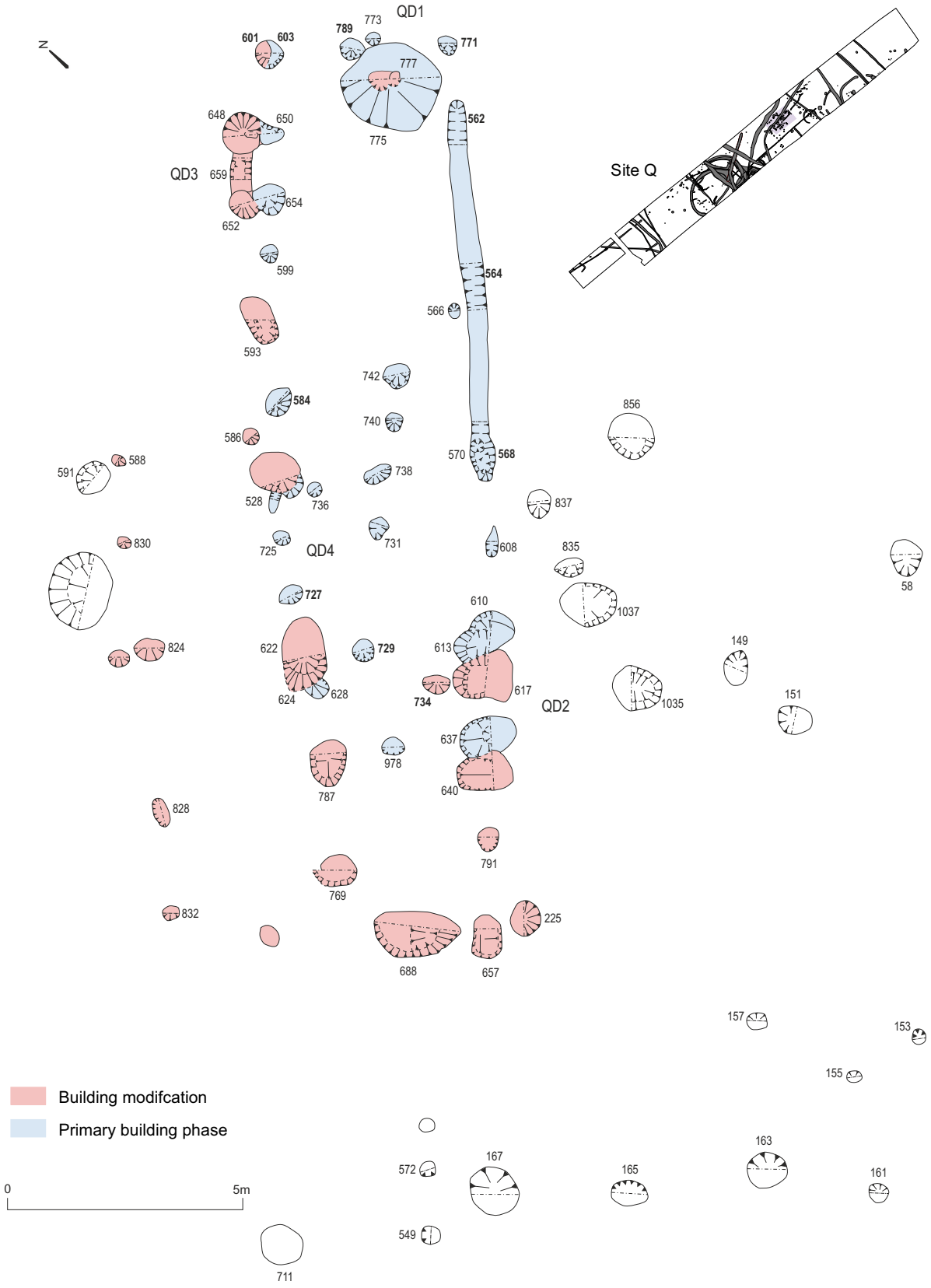


Fig 7.18 Posthole arrangement for a 12th-century timber-framed building, Site Q

This process accounts for the slight alteration of the shape and alignment of the walls, and the variations in structural foundation techniques that were employed. Instances of possible modification and extension are highlighted in Figure 7.18.

Many postholes were generally circular or oval in shape and somewhat irregular in size, varying between 0.20-1.0m wide and 0.05-0.55m deep, with variation due to different structural phases of the building. Owing to the short duration in use of the building and the low density of finds recovered, it is not possible to more closely date the two phases of building demonstrated by the arrangements of postholes. It can be stratigraphically demonstrated that certain postholes were replaced or moved, and that certain doorways were inserted but that the overall life-span of the structure was quite short.

The earliest postholes probably defined a smaller timber-framed building, *c*.13.5m by 4.0m, perhaps with one end divided from the other by internal partitions (Fig 7.18). The exterior was defined by *c*.17 postholes and a short narrow gully, indicating the use of a sill beam. Representative profiles are illustrated in Fig 7.19. Most of the smaller postholes were more circular and had less variance in size at 0.20-0.30m diameter and 0.13-0.21m deep. The south-east wall was almost entirely supported by a sill beam set within a single gully, of a similar depth to the smaller postholes. This beam slot was 8.2m long and had a rounded profile (Fig 7.19, Q[562, 564, 568]). A single posthole was overlain by the fill in the slot at its western terminal, Q[570].

The north-east gable end was accessed by Doorway QD1, which was 0.8m wide between postholes Q[733] and Q[771]. Situated inside the doorway was a large circular shallow depression, around 2.23m in diameter and 0.16m deep. This seems to have been the product of erosion, and had been consolidated with hard chalky clay.

Another doorway, QD2, was located along the south-east wall at the opposite end of the building (Fig 7.19, Q[637, 610/613]). The doorway was of similar width to QD1 and was again positioned at the corner of the building. The doorway was later shifted sideways to accommodate the extension of the south-west gable.

There were seven postholes within the interior of this arrangement and all of these were proportional to the smaller-sized wall posts, suggesting a contemporary date (Fig 7.19, Q[729, 738, 742]). One posthole lay on the inside of the south-east wall, Q[566], and another on the inside of the north-east wall, Q[736]; offset asymmetrically to each other. The other five postholes lay in a row, slightly skewed from the central axis of the building and towards the south-west gable end, four of them roughly equidistant at 0.8-1.2m intervals and one set apart close to the end wall. The distribution

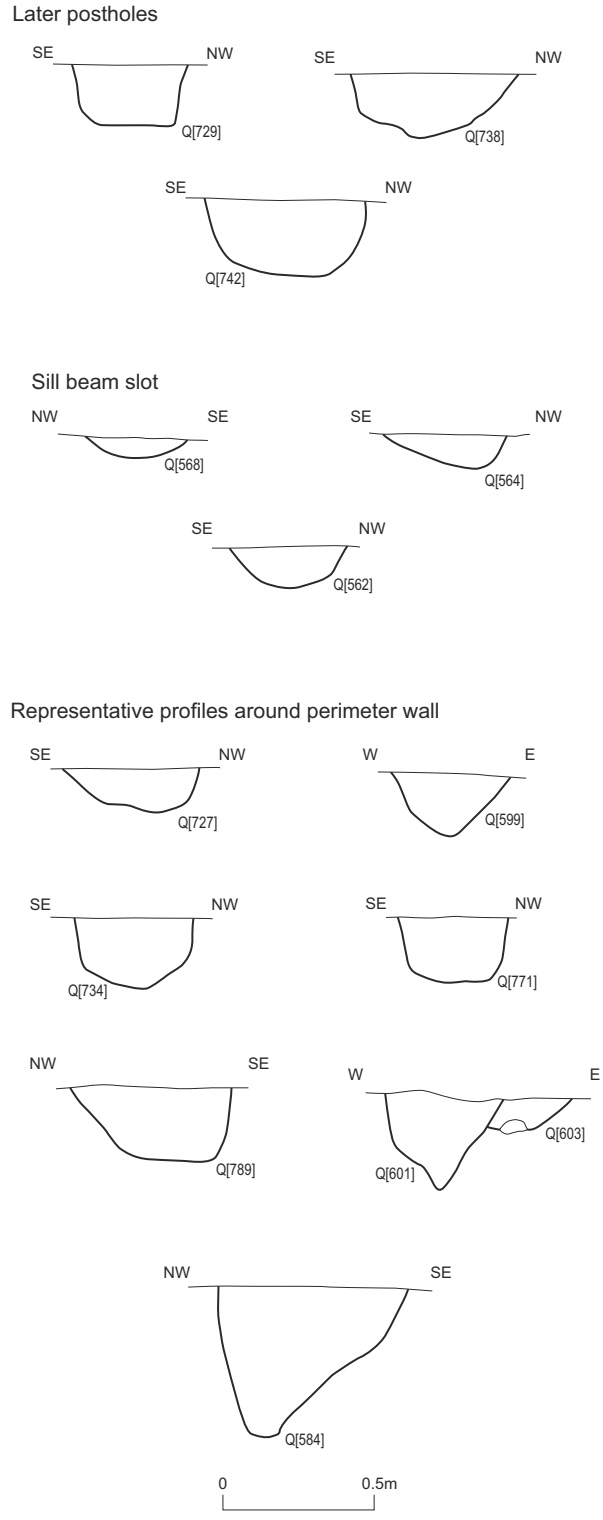


Fig 7.19 Timber-framed building, section profiles, Site Q

suggests an internal room partition but probably includes postholes inserted during later modifications of the structure. The room layout is not definitive but there seems to be a general division between a single main room (*c*.6.0m by 4.0m) and a back room (*c*.3.5m by 4.0m), perhaps with storage spaces occupying the remainder of the space in alcoves or niches.

Fig 7.20 The timber-framed building, looking north, Site Q

Doorway QD3 lay at the north-east end of the long side of the building where two smaller original postholes, Q[654] and Q[650], were substantially recut to accommodate a bigger 1.0m wide door jamb using post-pits (Fig 7.19, Q[648, 652]). A narrow gully cut between them to provide a sill for the doorway. This alteration may have entered into a porch-like vestibule to the north. It is suggested that this doorway insertion accompanied a structural change with the reinforcement of the wall, enabled by modification and enlargement of the timber frame.

Several post-pits along the north-west wall were enlargements of smaller postholes. If this had occurred in every instance it might have been considered a product of demolition and removal of the posts. However, since only selected postholes were enlarged, it is thought that the initial building was modified and extended. This second layout appears to have been much larger (*c.*14.0m by 4.0m), perhaps with a smaller room at the south-west end (*c.*3.5m by 3.0m) and an extension on the north-west side (*c.*9.5m by 4.0m).

In addition to the post-pits either side of Doorway QD3 there were five large post-pits that extended the building to its full length of 18m (example profiles Fig 7.19, Q[787, 593]). Most of these were roughly equidistant except post-pits Q[622] and Q[528], which were wider at 3.6m apart and provided access through the wall to the north-west room as Doorway QD4 (Fig 7.19, Q[628/624, 528]). The south-west corner of the building was truncated by a later ditch so that the corner post had been lost, but a further three large post-pits marked the extent of the enlarged south-west gable end.

The original long south-east wall seems to have been unmodified, but the extended section required the rebuild of Doorway QD2. The size of the post-pits to either side of this doorway suggests the rebuilt door jamb was substantial, roughly 1.4m wide, and had shifted position along the wall. Two pairs of large recut post-pits Q[637/640] and Q[613/617] contained a stark contrast of basal orange-brown sandy silt (Fig 7.19). After removal of the posts they were filled with dark grey-brown silty clay abundant with pottery (71 sherds, 923g), animal bone and occasional slag. These post-pits were between 0.75-0.90m wide and 0.22-0.45m deep. The lack of post-pipes and uneven edges of other post-pits suggest that timbers, and perhaps any stone pads, were salvaged before demolition (Fig 7.20, foreground). There is no evidence that wooden posts rotted *in situ* or burned.

Much of the original north-east corner of the building remained unchanged from its initial phase. Doorway QD1 was closed off with pit Q[777] before presumably being replaced by Doorway QD2. Pit Q[777] was cut to one side of the central axis inside the building at the north-east gable end. The pit had near vertical sides and a flat base and was filled with grey-white chalky sand, ash-like material, and several large rounded cobbles. There was no charcoal or evidence of burning in the pit, or any indications of a hearth within the structure. A single internal posthole lay at the south-

west end of the rebuild, beyond the extent of the earlier phase. Posthole Q[978] was located slightly off-centre of the main axis of the structure.

A rectangular arrangement of smaller postholes, proportional in extent to the earlier build, marked out a timber frame for a small side structure to the north of the building (Fig 7.18). The postholes along its north wall were relatively shallow and suggest that the structure was little more than a lean-to compared with the main building. This extension was large enough to have housed at least two rooms; however, no evidence of internal partitioning was found.

FEATURES SOUTH OF THE BUILDING

On the south side of the building was an area where further postholes and pits were located (Fig 7.15; 7.18). Whilst most of the postholes were similar in size, it was difficult to compare their profiles as fills could not easily be distinguished from the natural into which the pits were cut. Posthole Q[161] lay at the south-east end of a row of four roughly linear postholes of similar size at 2.5-3.0m intervals (Q[167], [165], [163]). Other scattered postholes also lay in the vicinity including a row of three small narrow postholes, aligned with the building and each 1.0m apart, but for the most part no organised arrangement was perceptible among these additional features. In general, the fill of features external and ancillary to the building were lighter in shade, tending towards orange-brown rather than grey and with greater sand than loam.

Posthole Q[837] was notable for its firm grey-black silty clay fill with abundant pottery, animal bone and stone post-packing, and pits Q[1037] and Q[835], which had possible post-pipes. Around three quarters of features in this area contained finds, compared to only one third of features within the structural arrangement, although there were fewer finds overall.

FEATURES NORTH-EAST OF THE BUILDING

A sinuous gully, Q[560] lay roughly aligned on the central axis of the building (Fig 7.17). At the north-east end there was a loose scatter of ten smaller pits and postholes, and on its south side were two isolated pits. The majority of these features were undated, except for pits Q[64] and Q[503].

The gully was fairly wide, but shallow. Straight sloped sides met with an uneven flat base, along which occasional hollows suggested that roots had once penetrated the sides of the gully. Dark brown clayey loam soil filling the gully was mottled and stained with darker patches, often filling the hollows. A similar pattern of deposition has been observed in planting trenches at Ampthill (Brown 2010).

There were eight postholes that roughly continued the line of gully Q[560], but they were not uniformly arranged. Most were generally circular or oval in shape, and sizes varied considerably, although the generally steep sides of profiles left little doubt that they were for posts. Fill constituents were generally dark brown or grey-brown clay silt or sand, suggesting removal of the posts and the overall absence of residual finds in their backfill indicated a peripheral location to domestic activity.

Immediately adjacent to these postholes were pits Q[551] and Q[556]. Both pits were oval in plan, with generally bowl-like rounded appearances. They were of similar size and filled with friable light grey silty clay or sand.

A sub-rectangular pit, Q[64], was little more than a shallow flat-bottomed depression, containing charcoal, fragmented oyster shell, splintered animal bone, and 12th-century pottery (40 sherds, 1,461g) that had been turned over into the dark brown-grey sandy clay loam. An adjacent pit was planned, but not excavated, as it appeared to be disturbed by a post-medieval boundary ditch and fence line.

Another outlying isolated pit, 80m to the north-east of the building, was used to bury a dog. Pit Q[389] was oval with near vertical, slightly curved, sides and a flat base, 1.60m by 1.15m and 0.41m deep. The pit was open briefly and spoil had slipped in at the sides before the

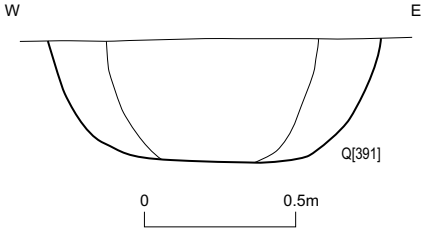


Fig 7.21 Dog burial 391 and pit Q[389], looking north-east

carcass (391) was deposited in the middle (Figs 7.15 and 7.21). Darker grey-brown silty clay loam, charcoal, 12th-century pottery (19 sherds, 96g) and an iron nail were included with the carcass, typical of domestic rubbish that suggested this was practical disposal rather than burial of a respected hound.

THE WESTERN BOUNDARY DITCH

The extent of medieval settlement was bounded to the west by ditch Q[746], which followed a sinuous route north-east to south-west with a gradual curve (Fig 7.17). At the southerly end this boundary narrowed into a small gully, proportional to other contemporary plot boundaries. The ditch was recut at least once, but for the most part the recut had been on a scale so much larger than the earlier ditch that in most sections the earlier ditch no longer survived. The initial ditch cut was simple and relatively shallow, and for the most part had steep sloping sides and tended to be rounded at the base. The fill was lighter grey-brown clay silt with occasional sand, usually with fewer finds. This western boundary was considered sufficiently important to be recut from a point immediately north of the smaller plot boundaries. The recut at the south-west end was a broad, fairly shallow, ditch with a rounded base (Fig 7.22, Q[699/697]). To the north the sides became deeper and the ditch opened out (Fig 7.22, Q[706]).

Whilst there was some evidence for basal in-wash, the upper fill of the ditch contained darker soils mixed with charred waste, pottery, animal bone and domestic detritus. These periodic dumps in the top of the ditch were evident from looking at the boundary at its surface. This abundance, relative to other features nearby, was investigated by sections at frequent intervals.

Environmental samples from the southern end of this boundary provided high densities of cereals and a moderately diverse flora. Wheat grains and a high density of stinking mayweed seeds suggests grain was grown on heavy clay. Many of the cereal grains were severely burnt and puffed. Other remains were relatively scarce, although bone fragments, small

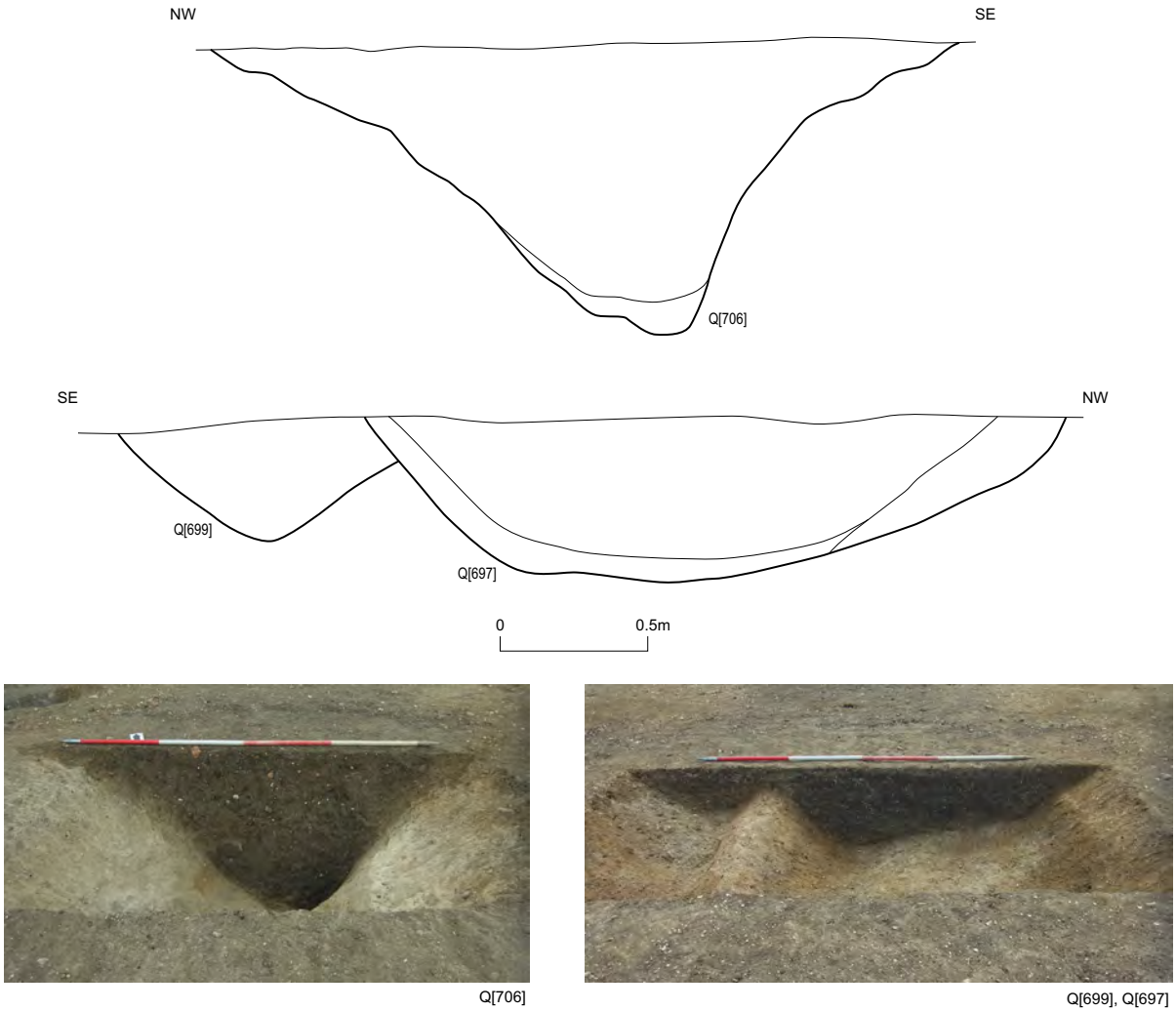


Fig 7.22 Ditch profiles along the early 12th-century western boundary, Q[746]

mammal/amphibian bones and eggshell were present. Artefacts included iron nails, pottery and querns. Finds that were suggestive of domestic waste increased in density towards the northern end of the ditch, whilst all evidence for crop processing was located at the southern end.

A TRIANGULAR PLOT

A ditch, Q[481], extended south-east from the western boundary and terminated short of the boundary plots to the south, leaving an entrance 2m wide into a triangular corner plot, *c.*234sqm in extent (Fig 7.17). The ditch had steep sides with a sharp break of slope to a flat base (Fig 7.23, Q[481]). Light mottled yellow-brown sandy clay in-wash at the base became increasingly darker and grey-brown towards the surface with charcoal flecks. The boundary separated the location of the crop processing waste along ditch Q[746] from the building-related features and domestic waste at the northerly extent of the boundary.

Pit Q[197] was the only feature within the area; an elongated pit 3.0m by 1.1m with a shallow rounded profile, 0.35m deep. The basal fill was dark brown silty clay, overlain by lighter grey-brown silty clay. Both layers were dumped into the pit with pottery (three sherds, 54g) and animal bone and the later fill also incorporated some burnt waste and charcoal.

PLOT BOUNDARIES TO THE SOUTH-EAST

To the south-east of the timber building were a series of narrow straight ditches that divided the area up into smaller plots (Fig 7.17). The northern edge of these was bounded by ditch Q[159], which lay roughly parallel to the building and was 76m long between its junction with the western boundary and its north-east terminal. The profile varied along the course although the ditch was primarily V-shaped, occasionally with a flat base that was consistently filled by light grey-silty sand derived from in-wash.

On the south side of this boundary the plots were divided up perpendicular to ditch Q[159]. These are unlikely to have all been contemporary boundaries, but they may indicate an area of horticultural activity close to the building. Some plots may also have been defined by fences, as suggested by a parallel row of three postholes extending away from the terminal of ditch Q[159]; however, most were defined by gullies. Three, possibly four, plots were apparent of differing widths; 25m at the north-east end, 32m in the middle and 19m at the south-west end (extending to 24m at the western boundary).

The small dividing gullies tended to be shallow and fairly rounded in profile. Gully Q[959] divided the north-east plot from the central plot. The fill comprised brown-orange gravelly sand in-wash and dark grey sandy silt nearer the surface, containing pottery (four sherds, 116g) and animal bone.

Several parallel gullies were located in the area where the division between the central and south-west plots would probably have lain. It is not clear if these gullies demarcated a further narrow plot, or indicate that the boundary of a larger plot had been moved. In either eventuality the gullies were fairly similar in form. Each gully contained grey-brown silty clay, stained dark at the surface, and with occasional root hollows that might indicate some vegetative activity. Despite this, these are not thought to be planting trenches. Gully Q[85] turned at 90º to the perimeter boundary and continued parallel for a short distance before ending in a pit, a little like a drainage sump. The pit was 1.5m

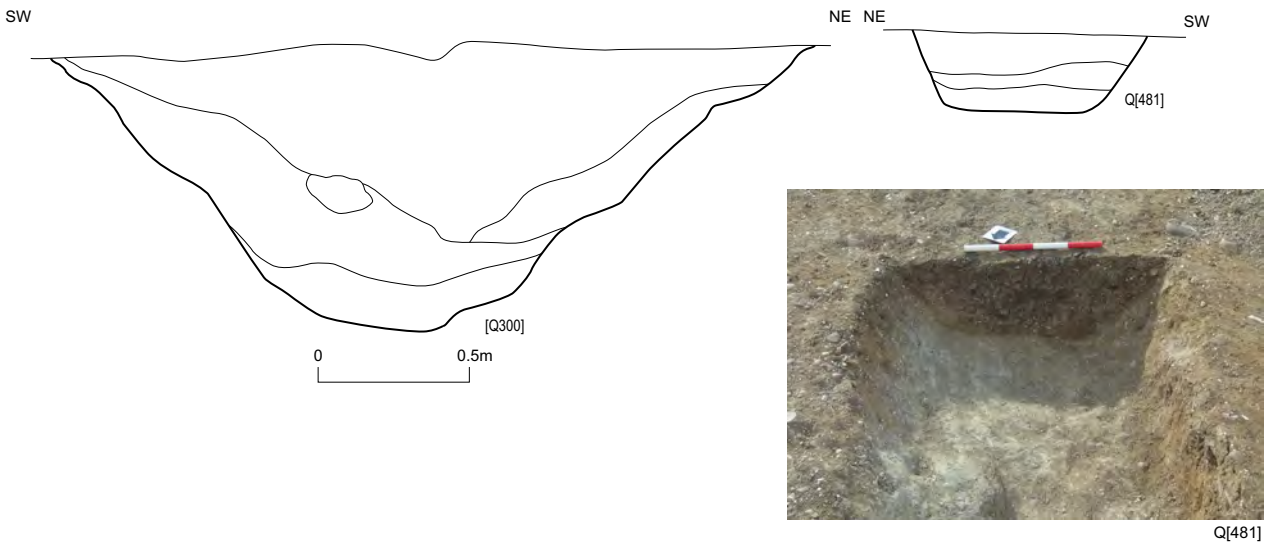


Fig 7.23 Minor 12th-century boundary ditches and associated features, Site Q

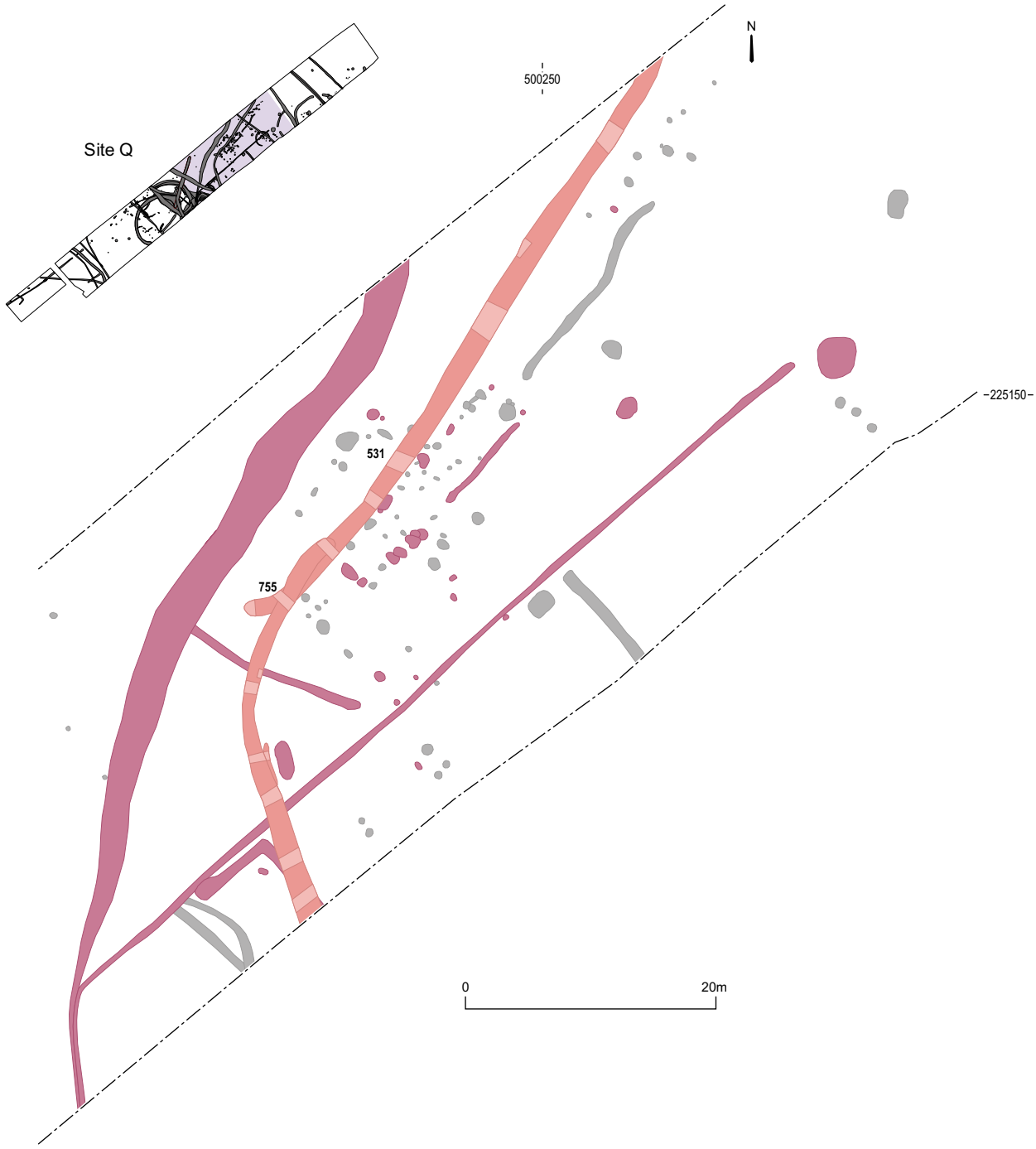


Fig 7.24 The mid/late 12th-century western boundary, ditch Q[531]

wide by 0.55m deep with a gently sloping edge from the gully, but steep on the other sides. The fill comprised mottled dark brown and grey sandy clay with iron salt flecks and manganese.

A large pit Q[300] was situated at the far north-eastern end of boundary ditch Q[159], adjacent to the terminal. The pit was largely symmetrical with a rounded base, 2.43m wide by 1.22m deep (Fig 7.23). The pit had mottled light brown and dark grey sandy clay silt at the base, which appeared to be accumulated in-wash, suggesting the pit was left open for a time. This was overlain by a tip line from the south-east side, comprising dark grey-brown silty clay with animal bone, and two sherds of residual 11th-century pottery. The majority of the pit was filled by friable dark grey silty clay loam containing seven sherds (68g) of 12th-century pottery, animal bone, red deer antler, a nail and copper-alloy fragments amongst the soil, probably derived from midden waste.

FEATURES WITHIN THE PLOTS

Within the north-east corner of the central plot was a large pit Q[47] (Fig 7.17), sub-rectangular with sloping sides and a flat base, 1.5m by 1.3m, and 0.33m deep. The fill comprised friable dark grey sandy clay with occasional gravel and charcoal with pottery (three sherds, 21g) and animal bone.

An undated posthole nearby, Q[153], had a rounded U-shaped profile and was filled by dark grey silty clay.

Four postholes within the central plot formed a rough rectangle, 1.7m by 0.80m in plan. As individual features they varied slightly in form. Allowing for truncation and loss of topsoil/subsoil they might have supported a lightweight structural frame or be the remnants of a possible fence line extending north-west (Fig 7.17). The light grey-brown clay silt and sand fills suggested removal of the posts. One posthole had acquired a single medieval pottery sherd (22g).

An additional two postholes lay 5.80m further to the south-west, 0.80m apart, and are undated. They were circular, similar to those in the four-post group in profile, size and fill.

THE MID 12TH CENTURY ONWARDS

By the time the timber-framed building was demolished in the mid 12th century, the western boundary ditch had largely been filled by periodic dumping, and was replaced by a parallel boundary. Rather than recutting the older ditch, this boundary crossed to the south of its original course and truncated the footprint of the demolished building (Fig 7.24). Initially, at least, it seems that only the northern extent of the boundary was reinstated, with ditch Q[531] extending north-east from the triangular corner plot.

At the western terminal was a bulbous shallow pit, 1.5m wide by 0.26m deep, which had asymmetrical sides, one steep and the other gently rounded, with a broad flat base. Light grey-orange clayey sand fill was mainly derived from in-wash and there was no material from dumping. The pit was cut by a posthole with vertical sides and a flat base, which was later removed, allowing dark grey silty clay loam to fill the void.

The ditch became more clearly defined to the north-east. Initially the cut began as a narrow steep-sided channel that opened out at the top (Fig 7.25, Q[531]). Gradually this widened until it was fully V-shaped. The dark black-brown silty clay loam fill indicated continued dumping along this part of the boundary after the demolition of the building, as evidenced by pottery (18 sherds, 205g), animal bone and charred waste that was reminiscent of midden material.

A short time later, while this boundary was still in use, it was extended by recutting a short length of the ditch at the south-west terminal and then continuing the original course, curving to the south-east. This stretch of ditch, Q[755], had fairly steep sides with a rounded break of slope to a flat base (Fig 7.25). The basal fill was slumped against the inner south-east edge, comprising dark grey-brown silty clay in a

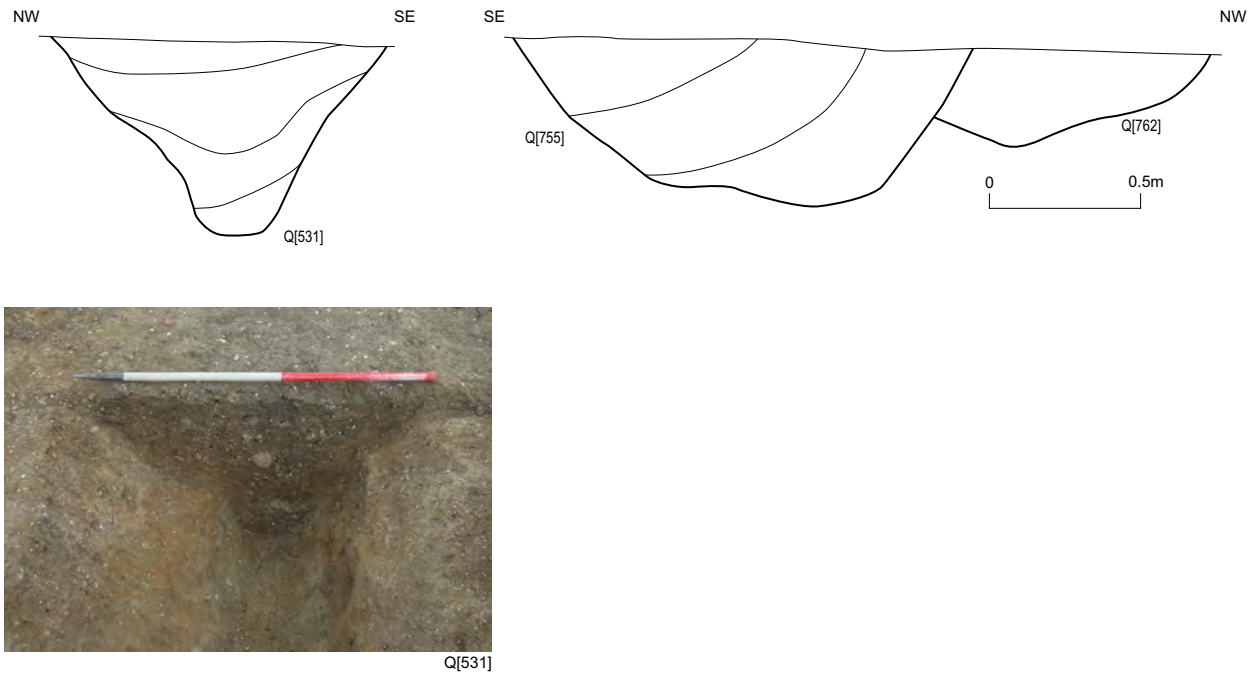


Fig 7.25 Ditch profiles along the mid/late 12th-century western boundary, Q[531]

thick tip line. Above this was another thick tip line of slightly lighter orange-brown silty clay, and at the top a final infill of dark black-brown silty clay with pottery consistently of the mid/late 12th century.

As it turned south the ditch deepened. The inner south-east side at this point was heavily disturbed with animal burrows. Whilst the basal fill of the channel comprised light grey gritty clay silt derived from in-wash, the upper deposits continued to exhibit tip lines from infilling with available soil, midden waste and clearance debris.

At the southern extent of the excavation the ditch cut through the 12th-century plots along the boundary of ditch Q[85]. At this point the profile had steep sloping sides and a slightly rounded base. The basal fill formed a thin layer of light grey gritty clay silt, with the bulk of the upper fill derived from darker grey-brown silty clay infill with chalky flecks differentiating possible tips lines from the inner north-east side, consistent with infill further north.

By the end of the 12th century all of the boundaries had been infilled and it appeared that the site had become abandoned, with no evidence for occupation.

Post-medieval boundaries

Historic maps depicting the site show two narrow closes, aligned north-west by south-east, among larger fields (Fig 7.15, 7.25). A study of the First Edition Ordnance Survey of 1879–1881, published in 1886, shows that three field boundaries correlate with ditches recorded within the detailed excavation area. All of these features produced 19th- and 20th-century pottery, roof tile or pieces of ceramic land drain.

A boundary at the east of the site correlated with ditch Q[444]. The ditch profile was rounded with a flat base, 1.20m wide by 0.60m deep, filled by varied layers of dark grey-brown silty clay loam, occasionally with chalky flecks. The top of the ditch on its east side was heavily disturbed along the length by shallow undulating hollows, perhaps created by a hedgerow.

The central boundary correlated with ditch Q[491] between the two mapped fields, which was depicted with deciduous trees on either side by 1901 (Second Edition Ordnance Survey map, not reproduced), but were no longer shown thereafter. The ditch was narrow, 0.70m wide by 0.25m deep, and had near vertical sides and a flat base, filled by dark brown-grey silty clay loam. Thirteen postholes were identified along its west side, which marked a contemporary fence line at the edge of the field.

Ditch Q[1102] lay in roughly the same location as the mapped boundary to the west but was on a slightly different alignment. The ditch had steep sloping sides at 60-70º and a flat base, 0.73m wide by 0.28m deep. Fill materials comprised soft light to mid brown silty clay in-wash at the base with dark brown silty loam infill at the surface.

Narrow fields, defined by hedgerows and trees, are visible on RAF aerial photographs dated September 1947. The Ordnance Survey maps and later aerial images suggest that the boundaries were removed before 1973. It is unknown how old these three boundaries were, but they are clearly marked on the 1796 map of enclosure for Houghton Regis (BRO MA 84), alongside many more narrow enclosures on the north side of Thorn and represented pre-existing enclosure at that time.

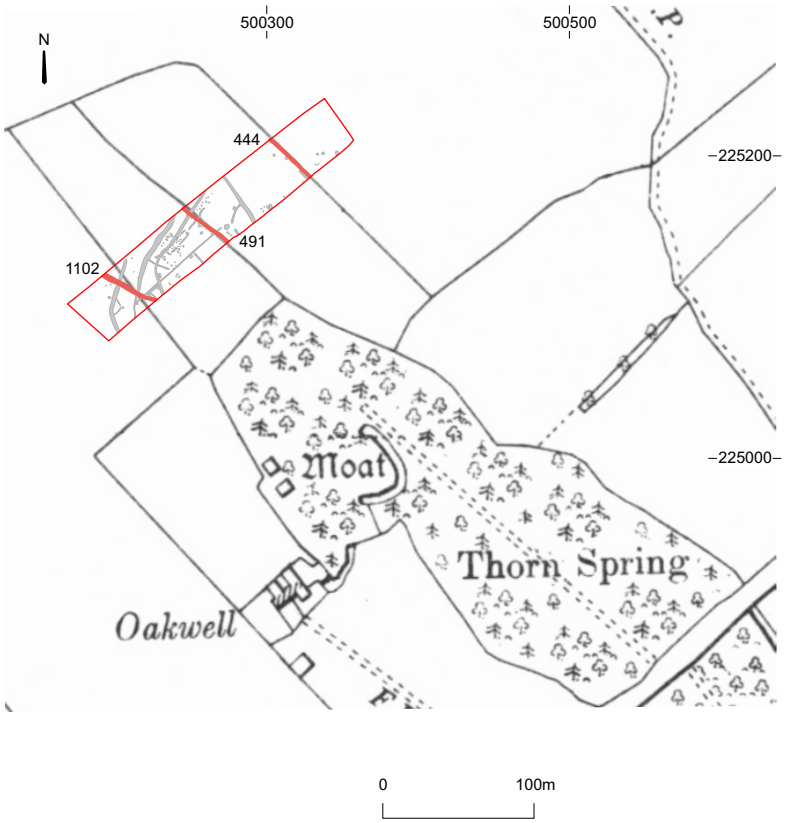


Fig 7.26 Ordnance Survey 6" map, Bedfordshire XXIX.SW, 1886

MEDIEVAL ACTIVITY AT SITE G

Medieval activity was excavated at the north-east end of Site G during a targeted watching brief 7m wide topsoil strip and in advance of the construction of a haul road. It extended over an area of 0.5ha and was situated *c*.90m to the west of Thorn Farm, and 450m south-west of the excavations at Site Q.

The archaeological remains comprised several linear and curvilinear ditches forming boundaries, pits and a large quarry or pond. The features produced pottery of the 12th-13th centuries, which is fairly consistent with the abandonment of Site Q and the latest radiocarbon date ranges from charred wheat grains from Site G. The activity relates to the wider medieval settlement at Thorn but insufficient remains were exposed to determine what they represented. The site lay on level ground with chalky clay natural (Fig 7.27).

DITCHES AND PITS AT SITE G

A long narrow linear ditch, G[1315], lay on a north-east by south-west alignment. Although it produced no pottery, it clearly post-dated Iron Age features in the vicinity. The ditch was 0.99m wide by 0.45m deep with a rounded profile and a flat base. The fill comprised dark grey-brown silty clay, overlain by mid orange sandy clay. At its northern extent it was shallower and broader, with silty fill comprised largely from in-wash.

Aligned parallel with this ditch, 37m to the north, was ditch G[1341]. This had shallow uneven sides and a rounded profile. Rounded pebbles were well sorted towards the base within mottled orange-grey sandy clay gradually darker towards the surface. One sherd of 12th-century pottery came from its upper fill.

A narrow gully, G[1197], lay on an almost east-west orientation. The gully had a steep rounded profile and was filled by a natural accumulation of silty clay. At its eastern end it connected with a large pit, interpreted as a quarry or possibly a pond G[1195]. A few metres to the south of this was ditch G[1215], which lay parallel to G[1197] but which stopped short of the large pit. The ditch had a rounded terminal with a steep-sided profile, which flattened out to the west, with grey-brown silty clay fill.

Pit G[1195] was interpreted as a quarry for clay extraction and once disused may have formed a pond. The pit was sub-circular, with uneven, stepped sides, and was over 6.20m in diameter (Fig 7.28). The full depth of 0.71m deep was established by machine excavation. The pit filled rapidly with water. Within the pit a deeper cut around the north-west side formed a trough. Silting and erosion around the edges of the pit created a gradual fill of silty clay with moderate pebbles.

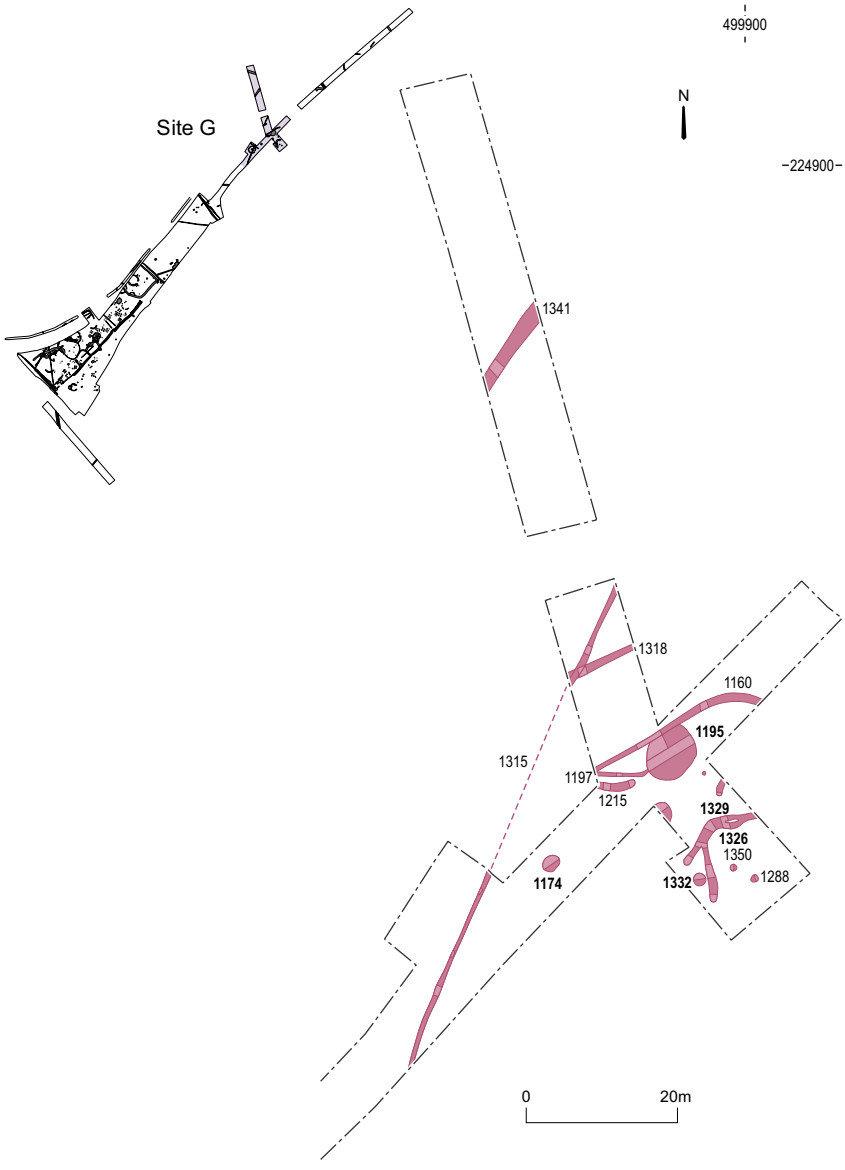


Fig 7.27 Plan of medieval features found at Site G

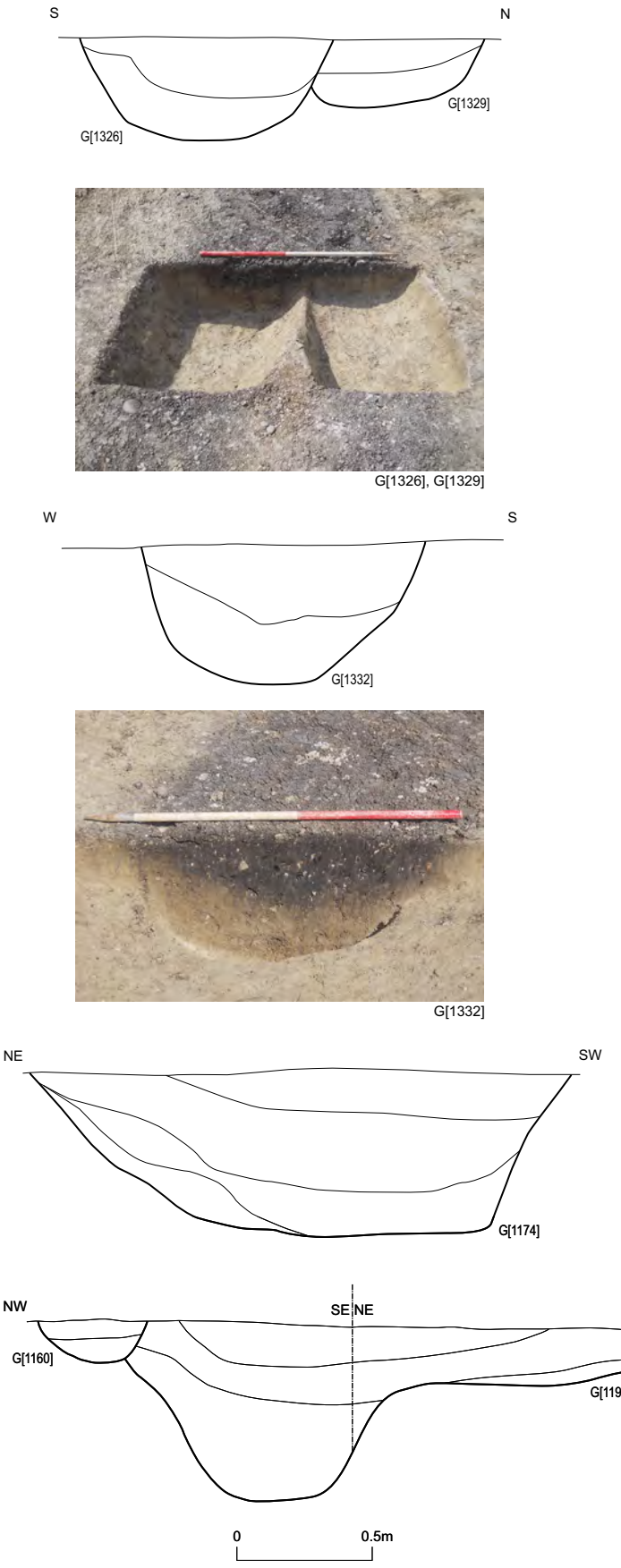


Fig 7.28 Profiles of medieval features, Site G

The quarry pit was cut along its northern edge by ditch G[1160], which had steep asymmetrical sides. Its north-east by south-west alignment turned gradually to the south-east, suggesting it may have been part of an enclosure. The fill comprised brown-grey silty clay, darker towards the surface, with poorly defined edges. A land drain cut the ditch, which contained single sherd of 13th-century pottery.

A parallel ditch, G[1318], was situated 11.6m to the north and cut across ditch G[1315]. The shallow rounded profile had iron-panning towards the base and within its chalk-flecked silty clay fill that suggests long term fluctuations in the water table.

The main concentration of medieval finds and features lay to the south of these ditches. Pit G[1174] had an asymmetrical profile and a flat base (Fig 7.28). Whilst there was no scorching of the natural it contained the remains of a small fire. The fill comprised black and grey charcoal flecked clay silt containing seven pottery sherds (94g) of 12th-century date, animal bone and burnt clay.

To the south-east of pit G[1195] was a curvilinear ditch, G[1329], with terminals at either end (Fig 7.29), aligned roughly north-east by south-west, which had moderately sloping sides and a flat base (Fig 7.28). The ditch rapidly accumulated dark silty clay mixed with charcoal and burnt material, particularly at the rounded terminals, from which six pottery sherds (105g) from the 12th century were recovered. The ditch was soon recut following a tighter arc and extended to the south. The recut had moderate sloping sides and a flat base. Shallow erosion/silting lay at the base and was later overlain with dark silty clay mixed with burnt material indicative of dumping, from which 61 pottery sherds (821g) of 12th-century date were recovered. The ditches appeared to lie at the corner of a distribution of features beyond the limits of the scheme, which may be part of a medieval plot.

A number of other pits were recorded in the vicinity of the ditches. Pit G[1332] was sub-circular with steep sides and a rounded base (Fig 7.28). The pit was filled with dark grey-black silty clay containing 11 sherds (165g) of 12th-century pottery, and an iron awl or punch.

Two circular pits lay within the arc of the ditch segments. The pits were 0.60-0.85m in diameter and less than 0.38m deep. Pit G[1350] had sloping sides and an uneven base, filled with dark black-grey silty clay containing charcoal, burnt clay, 11 pottery sherds (98g) of 12th-century date and a nail. Pit G[1288] had steep sides and an uneven base, filled by charcoal rich silty clay with a few fragments of animal bone.

Fig 7.29 Medieval curvilinear ditches, Site G

MEDIEVAL SETTLEMENT AT SITE F

Site F lay to the rear and to the west of an isolated property called Hillcrest fronting the road. The excavated area was roughly L-shaped and a little over 1.0ha in extent (Fig 7.30), stretching from the flat summit of the valley ridge, south-east of Chalton, to its mid slope, overlooking the Flit valley. A general watching brief monitored the excavation of drainage ditches to the north-east of the area. The geology of this ridge is mainly orange-brown clay overlying chalk. The area was not the subject of geophysical survey as land access was not available during the evaluation.

Saxon activity was limited to the slope of the hillside overlooking the Flit Valley to the north. The excavation produced 22 sherds (228g) of early/middle Saxon pottery dating from the 5th–9th centuries, a heckletooth, three annular loomweight fragments, and a rare handled comb of late Saxon date. Most were residual in later contexts except for three isolated pits. The mixed charnel of two adults and three subadults of late 4th to 5th-century date came from a plough-damaged pit, sealed by a late Saxon cultivation soil. This material is discussed in Chapter 5.

Boundary ditches were established at the top of the hill in the late 11th century, which enclosed a possible yard area, within which were two possible structures. The area continued to be used into the early 12th century when the area was divided up into smaller units.

The early to mid 12th-century layout had three land units, possibly representing infields or closes. The western and southern boundaries were regularly maintained from the early 12th century onwards. Initially a trackway opened onto land to the north. The boundaries gradually extended northwards beside this trackway until this area was formalised into an additional closes.

The central area had the greatest concentration of features and may have contained a building (FS5) where there were pits to extract clay and dispose of organic waste. Metal finds were dominated by horse-related artefacts and the pits contained the remains of semi-cleaned barley, perhaps used as animal feed. A building was also constructed on the north facing slope, overlooking the valley (FS6). This was a simple structure of stone and cob construction on a chalk foundation with dirt floors, with an entrance, a possible hearth and a tiled roof. A stone-lined pit lay outside against the north-west corner wall, adjoining to a cobbled surface outside the doorway.

On top of the hill, behind the building, the closes continued in use. The former trackway was closed off and the land became a separate unit with several defined areas. The building within the central area was possibly demolished at this time. These modified boundaries ceased to be used by the end of the 12th century at which time they were filled and a single land unit was created taking in the whole of the excavated area.

Ditches at the edge of the excavated area largely reflected the eastern and southern limits of modern field boundaries. By the 13th century the cottage (FS6) stood within open ground and a nearby pond was dug into the hillside to catch water run-off down the slope. Late medieval pottery marked the disuse of the ditches, pond and the stone and cob building.

The whole site was subject to a clearance in the late medieval period, at which time the ruins of the cottage (FS6) were cleared and the ground was flattened. The upper fills of the 12th-century pits acquired later pottery as a product levelling up the hollows of earlier

Fig 7.30 Plan of Saxon, Norman and medieval features, Site F

features and structures. This took place in the mid 14th to 15th centuries. Features at the edges of the site, including the pond, continued to accumulate fill into the late 15th century.

Three pits produced finds of the 16th and 17th centuries with no clear provenance. A shallow ditch lay on the alignment of a trackway, mapped by the Ordnance Survey in 1882.

SAXON BOUNDARIES AND PITS

PITS CONTAINING SOLELY EARLY/MIDDLE SAXON POTTERY

The early/middle Saxon era covers a broad period over the 5th–9th centuries AD, with low level activity recorded on the downslope over the river. A group of three pits belong to this phase, and residual finds were also recovered from later features (Fig 7.31), including as much as one third of the early/middle Saxon pottery (22 sherds, 228g) from across the site, which suggests that activity had not been extensive in this period.

Two pits with exclusively early/middle Saxon pottery were spaced 30m apart at the same elevation. Pit F[893] had been cut by a medieval pit and truncated horizontally, but was probably originally sub-circular in plan, with steep vertical sides and flat base. Dark brown-orange clay silt merged between the base and upper horizon that produced sufficient material to suggest domestic waste was present. This comprised pottery (four sherds, 76g), animal bone, a heckle or woolcomb tooth and part of a ceramic annular loomweight. Wet-sieved flots produced a few charred grains of oats, barley and wheat, but very little wild seed (Fryer 2010, table 65). Hazelnut shell, charcoal and fragments of eggshell were also present.

Pit F[346] was badly truncated by the construction of a later medieval building. The pit was circular in plan with near vertical sides and a flat base (Fig 7.31). It was infilled with redeposited natural clay mixed with chalk, charcoal flecks, one pottery sherd (8g) and unidentifiable fragments of copper alloy.

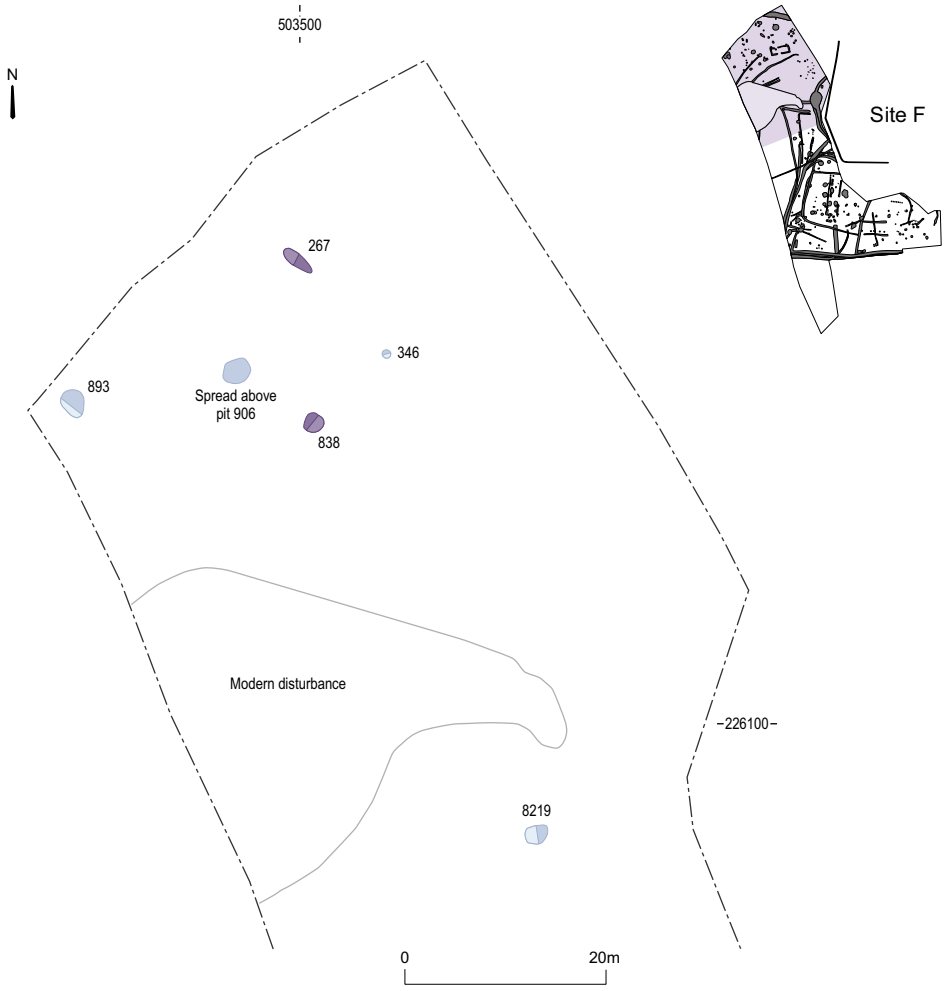


Fig 7.31 Activity of the 5th-10th centuries, Site F

Further upslope, pit A[8219] discovered during trial trench evaluation (Brown 2015b, 24, fig 13, s.20) was initially interpreted as a ditch as it extended the full width of the trench, being 1.50m wide by 0.43m deep, with steep sloped sides and a flat base. The fills were not especially dark in colour and were silty in composition, containing a small quantity of domestic waste: charcoal, a broken annular loomweight of 7th-8th-century date and several large sherds of pottery indicative of a primary deposit in an unabraded condition (Chapman 2015c, 29).

Possible Saxon to early medieval cultivation soils

A late Roman charnel burial pit, F[906], 1.9m by 0.9m in plan, was found containing disarticulated human bone. Single elements lay scattered in the overlying spread, up to 1.6m from the main burial. The human bone was radiocarbon dated to 380–435/460–465/490–535 (Table 5.12), and is discussed in Chapter 5.

Overlying the charnel burial pit was a large spread of dark brown-black silty clay, covering an area 3.75m by 3.20m in plan, which had settled into the surface of the grave depression, 0.12m deep (Fig 7.31). This slightly loamy layer appeared to be the remnant of a possible cultivation soil, with a mixture of finds that were mostly suggestive of domestic activity. The layer contained a cow phalanx and early/middle Saxon pottery (14 sherds, 122g). Small mammal/amphibian bones, a speck of cremated bone (1g) and a few charred cereal grains were amongst the wet-sieved flots (Fryer 2010, table 63). Charcoal was of hazel, *Maloideae* (probably hawthorn) and field maple. Grains of barley were radiocarbon dated to the late Saxon period, AD980-1035 cal (95% confidence, 1020±30 BP, Beta-446427; Table 7.23).

The deposit was badly truncated horizontally, reflecting the situation across the wider site, and vertically where two short parallel plough scars cut through the layer, *c.*1.2m apart. The plough scars were only discernible within the spread because of the way in which they separated the charnel from the underlying burial and scattered the elements to the sides. They lay across the slope, similarly to nearby ditches and gullies. The shallow grooves were 0.40m wide by 0.12m deep, rounded in profile and may indicate small scale horticulture. The plough scars contained an iron nail with a curved profile, part of a ring, and a Roman coin of Magnus Maximus (AD383–388).

Features containing solely late Saxon finds

The most significant of the Saxon finds was a beautifully decorated carved bone-handled comb, which stylistically has been dated to the 9th century and is fairly unusual for its kind (Fig 7.63). The comb was the only artefact to be recovered from pit F[838].

Later Saxon activity was limited to the north-facing slope, marked by three isolated features, two of which each produced a single 10th-century pottery sherd. Pit F[838] was sub-circular in plan with an asymmetrical profile that was shallow on the downslope side and steep on the upslope side, with a rounded base (Fig 7.31). The bulk of the fill comprised mid grey-brown silty clay with frequent pebble flint, whilst the upper fill was dark brown-black clayey loam. In close proximity, a slightly oval and elongated pit, F[267], was 2.05m by 1.21m in plan and had a widely splayed V-shaped profile with a narrow flat base. The fill comprised friable mid grey-brown clay silt.

Saxo-Norman boundaries and possible structures

Initial Saxo-Norman boundaries

Settlement in the 11th to the early 12th centuries is represented by an arrangement of linear and curvilinear enclosure ditches on top of the valley ridge (Fig 7.32). The boundaries were to form the basis for subsequent developments for a period of settlement that remained unbroken until the late medieval period.

The ditches defined an enclosure that was *c.*1ha in extent, although the perimeter on its northern side was not fully identified. An entrance, 12m wide, opened to the west of the enclosed area associated with short gullies. Pits and elements of possible structures lay within the enclosure at its eastern end, perhaps also associated with an east entrance, *c.*16m wide. An early boundary separated activity on the ridge from unoccupied land downslope to the north. There is no indication that this period of activity was associated with the presence of Luton Road which lay some distance to the north.

The west entrance lay between the ends of ditches F[1330] and F[1009]. The two ditches on this western boundary were of similar character; they shared a straight V-shaped profile and slightly rounded base (Fig 7.33, F[1330]). Brown sandy silt basal deposits in both ditches suggested a gradual accumulation of in-wash. However, lighter mottled grey-blue and orange-brown silty clay and slightly darker soils towards the surface, produced by differential drying, suggested long term fluctuations in water levels leading to precipitation of iron salts in the soil. There were two pottery sherds (42g) from the southern entrance terminal and the rest of the western boundary produced 38 sherds (572g), which indicated initial use in the 11th to early 12th centuries and up until the mid 12th century.

Along the northern edge of the enclosure, where it could be seen, the ditch profile was much narrower and shallower, but remained consistent (Fig 7.33, F[1330]). Brown sandy silt formed a gradual

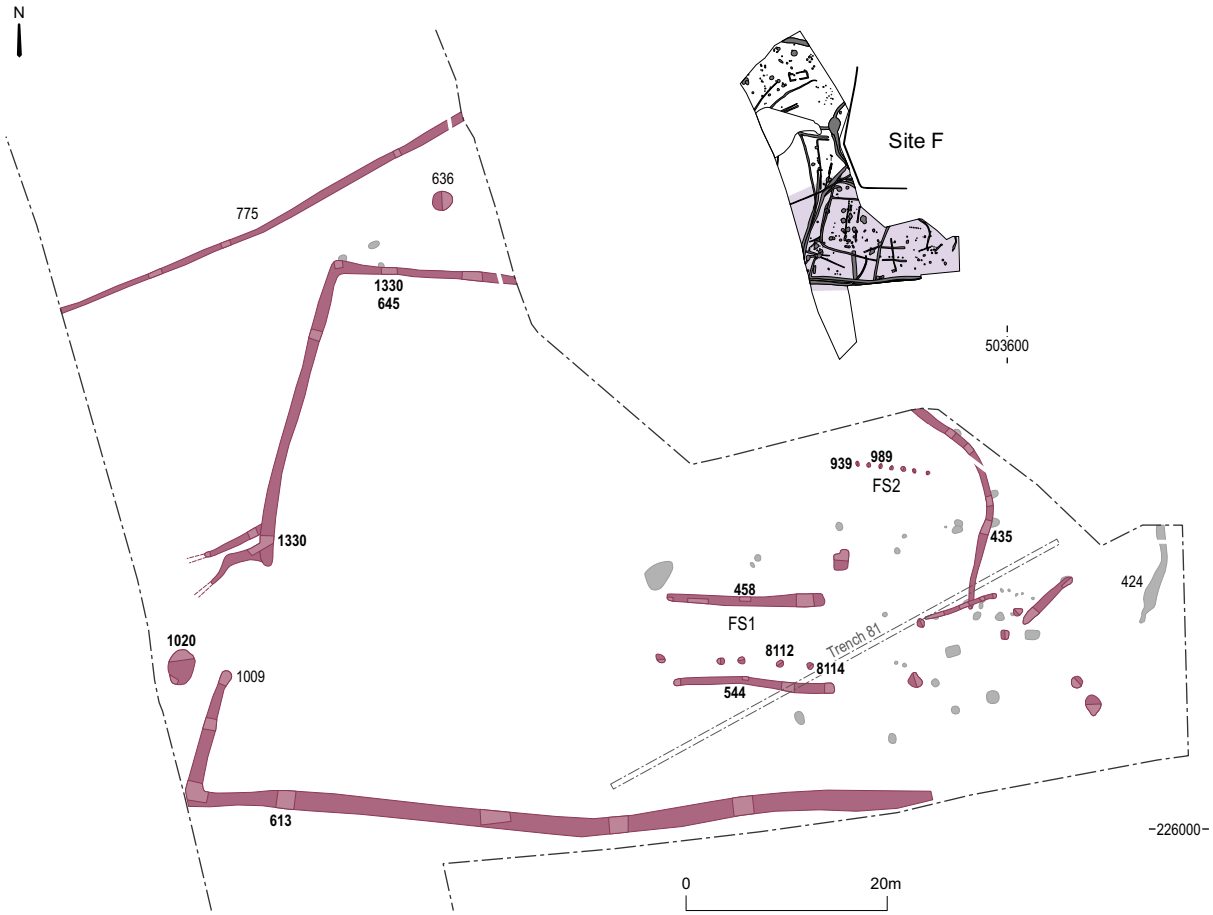


Fig 7.32 Layout of the Saxo-Norman enclosure, Site F

accumulation within the ditch. A single 11th-century pottery sherd was recovered. This ditch turned almost 90 degrees and at the corner it cut through an earlier undated shallow sub-oval pit, which was undated. While the ditch lay largely outside the excavation area, a similar section of ditch to the east may be its continuation along the eastern perimeter of the enclosure. The ditch had steep sides and a narrow flat base, which was filled with marginally darker brown soil, producing seven pottery sherds (393g) of the 11th century. The profile remained consistent with the other boundaries, and coincided with four pits. Whilst these pits were similar in size and shape, being roughly circular in plan, 0.75-0.80m wide by 0.13-0.26m deep, none of them were substantial enough to appear structural (Fig 7.33, F[435]). The pits were filled by friable grey-brown silty clay, similar to that of the ditch, making relationships fairly tenuous.

Two short lengths of gully extended south-west from the western entrance and gradually thinned out before being obliterated by later activity (Fig 7.32). Both gullies were over 1.0m wide but were very shallow at less than 60mm deep. The brown-orange sandy clay fills produced an animal tooth and eight pottery sherds (59g) of the early 12th-century.

The southern side of the enclosure lay along the site boundary, at the edge of excavation, where ditch F[1009] joined with ditch F[613]. This southern ditch was wider and deeper than its contemporaries, perhaps because of its preservation beneath a hedgerow. The profile was V-shaped with a flat bottom (Fig 7.33, F[613]) and the initial fill was brown-grey silty clay in-wash. Subsequent accumulations incorporated greater surface loam into the grey-brown matrix with the upper fills subject to modern root disturbance. The fill contained animal bone and one pottery sherd (4g) of 11th-century date.

POSSIBLE SAXO-NORMAN STRUCTURES

The site was cleared in the early 12th century; consequently these features are dated by their abandonment rather than their construction. Structures FS1 and FS2 are likely to have been in use during the late 11th century.

STRUCTURE FS1

Two parallel ditches were *c.*16m long and *c.*8m apart, aligned east-west (Fig 7.32). The ditches did not appear structural, but may have been flanking a possible building.

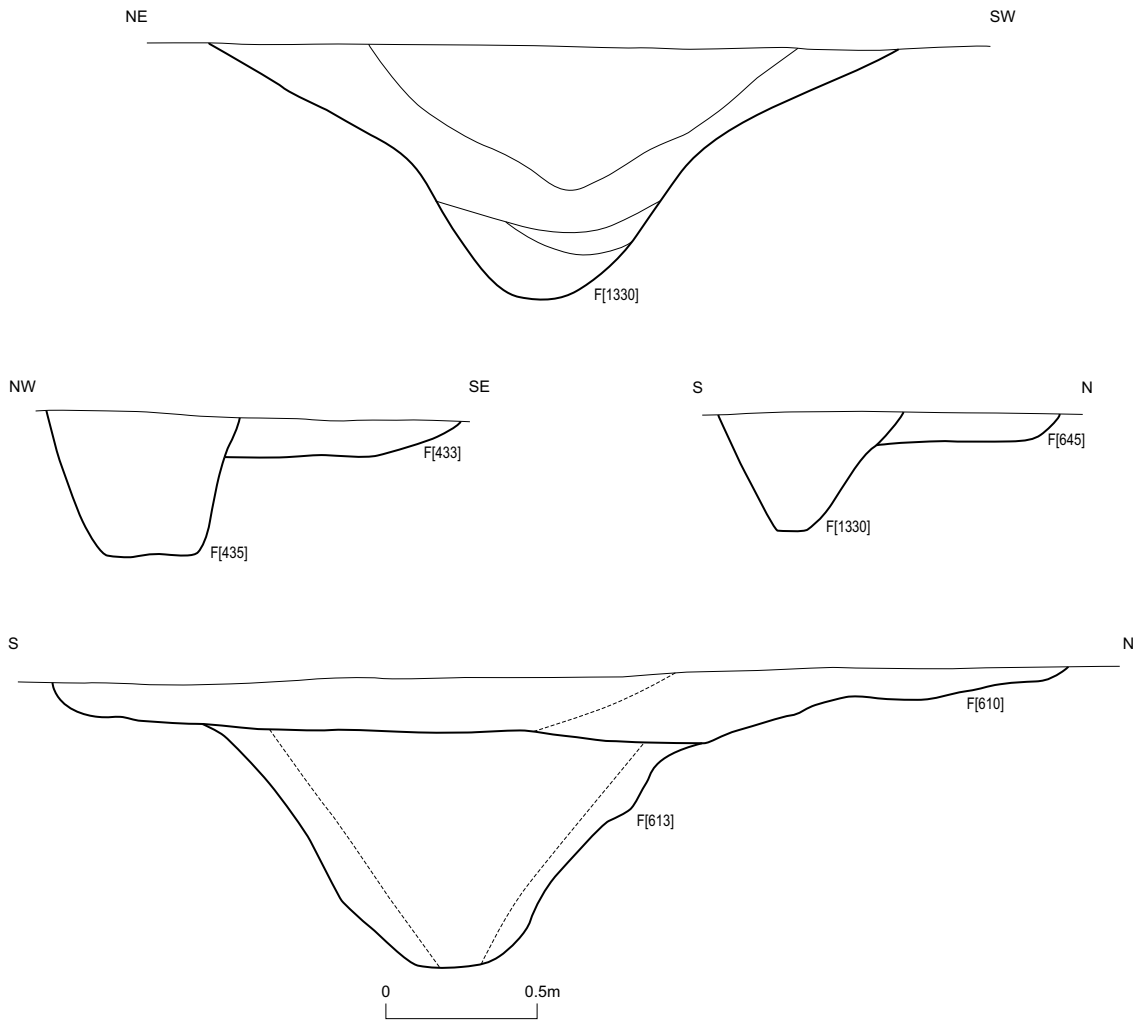


Fig 7.33 Saxo-Norman boundary features, Site F

The southern ditch had a flat base and an asymmetrical profile showing near vertical sides with the northern side sharply stepped at half its depth (Fig 7.34, F[544]). This unusual profile was consistent at both ends. The basal fill was dark brown-grey in-wash containing some splintered bone, whilst the bulk of the fill was largely redeposited natural clay with two St. Neots ware pottery sherds (29g).

The northern ditch was slightly wider at one end, narrower at the other, and shallower overall, with steep sloped straight sides and flat base (Fig 7.34, F[458]). The lower fill at the east end comprised dark yellow-brown clay that produced 121 sherds (899g) of pottery almost entirely of the early 12th century and included two piecrust rim sherds. Animal bone was also recovered in greater quantity than elsewhere and this unusual composition of finds rich clay fill is atypical for the site and seems to be a gradual accumulation of both in-wash and dumped material. The pottery from the upper fill, 39 sherds (210g), was manufactured after the mid 12th century and suggests a further backfill episode. The west end of this ditch was also truncated after this time.

Between the two ditches, and aligned closely to the southern ditch, were five postholes. The two eastern postholes were recorded during evaluation in Trench 81; these were typical of the group (Brown 2015b, figs 10 and 13). Other features noted in Trench 81 were later in origin. Postholes A[8112] and A[8114] were strong indications of a timber-framed structure (Fig 7.34). Their dimensions were substantial at 0.72-0.75m across, with depths of 0.39-0.68m. Fill materials were generally consistent, comprising dark grey-brown silty clay with charcoal, in contrast to the flanking ditches. Posthole A[8114] produced a hammerhead, which would not be out of place in the 12th century but is not closely datable.

Postholes of a similar size were found in close alignment with irregular spacing at 1.3-6.5m (Fig 7.32), and the furthest was positioned just beyond the extent of the flanking ditch terminal. One posthole was only 0.16m deep.

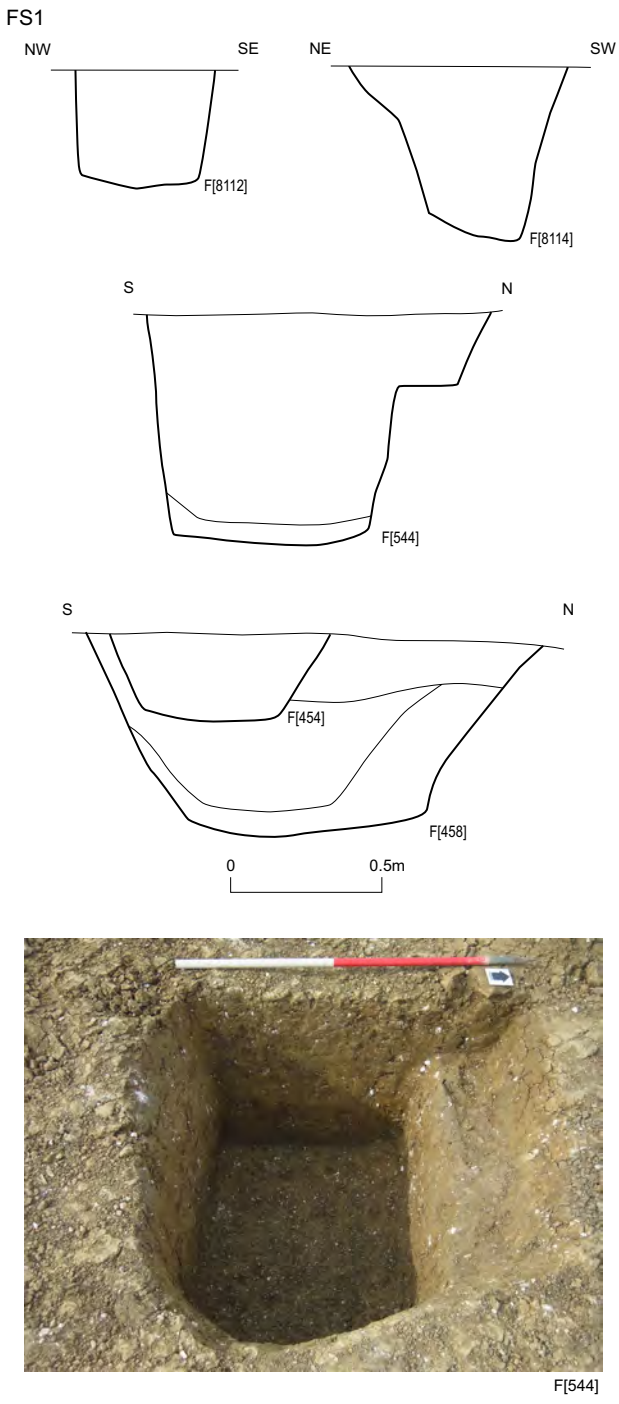


Fig 7.34 Features associated with possible Saxo-Norman Structure FS1

Fig 7.35 Features forming possible Saxo-Norman Structure, FS2

STRUCTURE FS2

North of Group FS1 there was a row of seven postholes on the same alignment as ditches F[458] and F[544] (Fig 7.32). These postholes were all sub-circular in plan, of similar proportions, but with varied and slightly irregular profiles that were badly truncated (Fig 7.35, example profiles F[389, 393]). Each fill comprised dark grey silty clay with charcoal flecks. Three features contained fragments of animal bone, and two each contained a pottery sherd of 11th-century date. These may form the only surviving remains of a small post-built structure, or be a remnant fenceline.

SAXO-NORMAN PITS AND POSTHOLES, AND UNDATED FEATURES IN CLOSE PROXIMITY

Most of the features producing pottery sherds of only 11th-century date lay to the east of the site. On the western extent of the site, features produced fewer 11th-century sherds and many were mixed in contexts alongside early 12th-century sherds. Pottery was fairly evenly distributed between pits and ditches as scattered single sherds, except where noted in larger concentrations. Fewer features in the east of the site post-dated the mid 12th century, and therefore undated features are more likely to be Saxo-Norman.

THE EASTERN EXTENT

There were 39 features around and to the east of Structure FS1 with no formal arrangement, excluding pits along the eastern arm of the enclosure (Fig 7.32). This seemingly random scatter comprised one undated boundary, two short datable gullies, nine undated postholes, seven dated pits and 20 undated pits. Pottery from the dated features was almost exclusively 11th century; two pits also produced early 12th-century sherds.

An undated boundary, F[424], was found at the furthest point of excavation, extending 9.6m south from the edge of excavation and terminating in a rough and irregular fashion in line with the terminal of the eastern boundary ditch E[435]. The feature was shallow and uneven and, although the fills were consistent in composition, the terminal simply shallowed out.

Two short gullies were each 6.5m and 7.8m in length, and occupied the space between Structure FS1 and boundary F[424]. Both gullies lay north-east to south-west, but were eccentric to each other. They shared a similar profile and dimensions; straight sides sloped inwards and met with a flat base, *c.*0.18m deep. Each gully contained brown-grey silty clay.

Between the two gullies, there were six postholes in a short row, closing the gap. These features were circular soil marks in plan and the deepest was barely 0.07m deep. No accurate profiles could be discerned. Another six postholes were more widely scattered, either individually or in pairs, mainly quite poorly preserved to a maximum of 0.23m deep.

The pits were scattered across the area in no particular arrangement, the greater concentration of them focusing in an area immediately due east of Structure FS1 and a few to the south of Structure FS2. Most of the pits were sub-circular and fairly substantial in size, 1.0-1.8m wide by up to 0.8m deep. The contents were generally fairly sterile both in terms of finds, also reflected in the plant macro-fossil assessment (Fryer 2015). The grey-brown silty clay fills tended not to retain charcoal, suggesting they may have been filled quite quickly with topsoil early in the occupation, perhaps after extracting clay for building purposes.

NORTH OF THE ENCLOSURE

Pit F[636] lay beyond the north side of the enclosure (Fig 7.32). It was oval, 2.40m by 2.08m in plan, and 0.56m deep. Fairly steep sides shallowed out into a broad rounded base. This pit contained redeposited natural clay at the base in a thin lens, with darker grey silty clay. A pottery sherd of 11th-century date, animal bone, and a spindle whorl were found, but could easily be residual. Three nearby undated pits were significantly smaller, two of these predated the enclosure ditch.

A straight gully F[775] with a U-shaped profile, 0.50m wide by 0.20m deep, crossed the north end of the site on a north-east to south-west alignment, *c.*7m beyond the north side of the enclosure. This gully was undated but was cut by a sequence of features of the early to mid 12th century, which were successors to the Saxo-Norman occupation.

WEST OF THE ENCLOSURE

A large pit, F[1020], outside the west entrance of the enclosure, was oval, 3.50m by 2.65m in plan, and 1.25m deep (Fig 7.36). Steep V-sloped sides shallowed out to a narrow flat base. Whilst the basal fill comprised grey silty clay subsequent layers were distinct, differing in texture and colour. Darker grey silty clay was tipped in from the sides, incorporating loam and with sand and gravely clay at the top, suggesting backfill material derived from several sources. Animal bone and pot (five sherds, 147g) was infrequent; sieved samples were largely non-productive and there was little charcoal.

MEDIEVAL OCCUPATION, STRUCTURES AND ENCLOSURES

In the early to mid 12th century modifications were made to the overall layout of the Saxo-Norman enclosure (Fig 7.37). The south and west boundaries were redefined by recutting, suggesting a fairly rapid accumulation of fills. The space within the area enclosed by Saxo-Norman ditches was sub-divided into three smaller areas. In the centre was a concentration of gullies and pits focused upon a roughly rectangular area which may have contained a building (FS5), possibly a stable, based upon a loose association of horse-related artefacts and probable animal feed retrieved from bulk soil samples. The former Saxo-Norman enclosure entrance was narrowed but remained opened on the south side.

Early12th-century developments extended most of the ditched enclosure boundaries. A trackway was created, with an entrance at the north-west end, that proceeded along the west boundary of the site into the southernmost of the three areas. This trackway ditch was soon extended northward, encompassing neighbouring ground, which was enclosed as an additional area in the second part of the 12th century.

Other more isolated features of early 12th-century date lay to the north-west in the vicinity of a single cell building, FS6, perhaps a dwelling. Many of the pits in its vicinity were undated. One of four roughly parallel gullies that lay across the downslope adjacent to the dwelling was certainly contemporary and it is likely that the three other undated gullies also belonged to the same period.

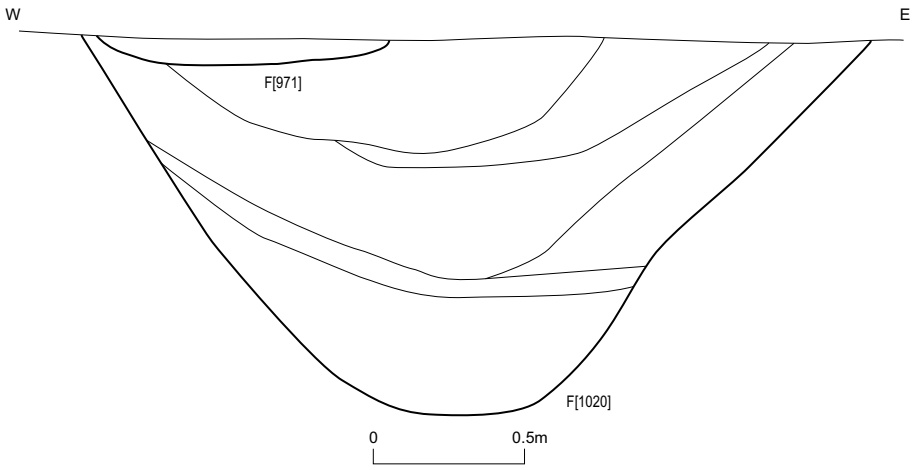


Fig 7.36 Saxo-Norman pit F[1020], looking south

ENCLOSURES AND POSSIBLE STRUCTURES OF THE EARLY 12TH CENTURY

THE ENCLOSURE ENTRANCE

Two ditches cut in this period altered the south side of the entrance to the former Saxo-Norman enclosure. One ditch, F[1036], was hooked, extending from the south before turning east, and ending with a shallow gully which continued its eastward alignment and gradually faded into a soil mark. On the north side the recut F[951] of ditch F[1316] replaced the former boundary. These features were successors to the Saxo-Norman enclosure that had produced solely early 12th-century pottery. The boundaries were well defined with steep sides and narrow flat bases that tended to thin out at the ends with a rapid accumulation of grey silty clay fill from in-wash.

THE TRACKWAY

The westernmost extent of the medieval activity was defined by ditch F[772] (Fig 7.37). Parallel to this was the recut of the Saxo-Norman western boundary, F[1361], which bounded an open area to the east, perhaps a yard. The corridor defined by these two ditches was *c.*8.0m wide and *c.*42m long, which may have been a trackway on a broadly north–south alignment, parallel with Structure FS5. At the northern end, the two ditches diverged slightly to create an entrance facing north, in the direction of Luton Road which lay around 90m downslope. At the northern end of the trackway, the east boundary ditch F[1361] turned abruptly to form the north side of an enclosed area, although a short spur continued north for a few meters where the probable terminal was lost to later features. The rest of the east boundary is described later as it formed part of the perimeter for the central enclosed space.

The other side of the trackway (boundary ditch F[772]) terminated parallel with the spur of F[1361] in a right-angled hook. F[772] had steep sides, slightly uneven with a narrow flat base that was filled with green-grey silty clay. This also exhibited a later recut. To the north and south the ditch was distinctly V-shaped, widely splayed at the top with a narrow flat base (Fig 7.38, F[783]). However, the green tinge to the fill (sometimes associated with cess) was not consistent along its length, which comprised mainly grey-brown silty clay as a gradual accumulation. Three pottery sherds (21g) of the early 12th century were recovered from that cut. No finds lay in the terminal end which was adjacent to an oval pit, 1.80m wide by 0.17m deep. The pit was filled by brown silty clay containing two pottery sherds (4g) and fragments of animal bone.

The western side of the trackway was extended northward by 20m, retaining the same general alignment and character as ditch F[772]. There was another sharp right-angled turn at its northern end leading into an 8m length of ditch with a terminus. The ditch was narrow with a V-shaped profile at its southern end and became more rounded along its north boundary (Fig 7.38, F[772]). Gradual accumulations of light grey silty clay filled its extent and it produced 19 sherds (87g) of pottery along the northern extent.

Fig 7.37 Layout of features from the early 12th century, Site F

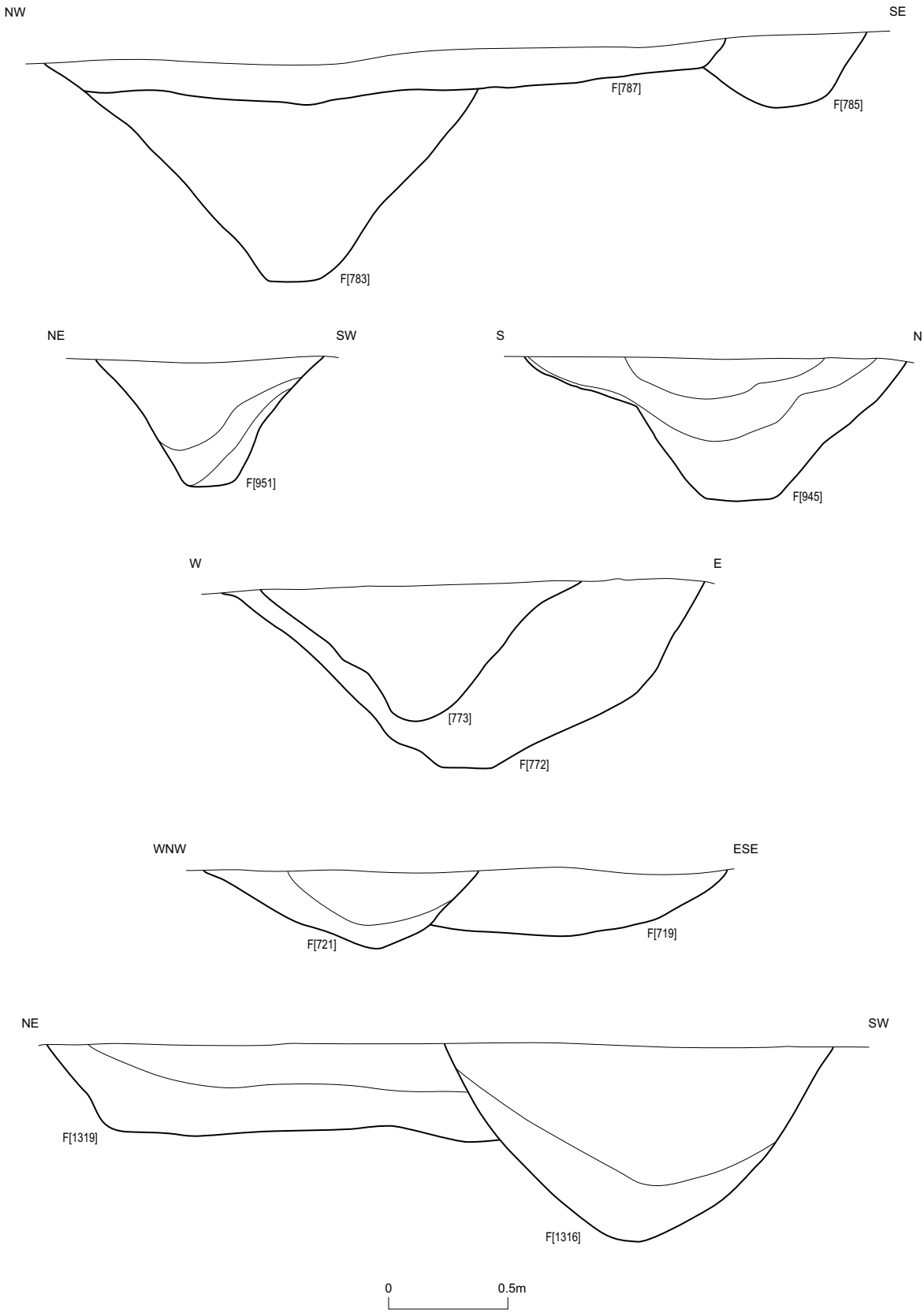


Fig 7.38 Boundary features of the early 12th century, Site F

THE SOUTHERN CLOSE

Although the intersection lay beyond the limit of excavation, it is likely that the west boundary of the trackway met with the broad east–west ditch which occupied the southern side of the site. This ditch, F[1045], recut a pre-existing Saxo-Norman ditch. This southern boundary recut was little more than redefinition and was quite shallow; it had steep sides with a sharp break of slope onto a broad flat base (Fig 7.38, F[945]). The fill was undifferentiated brown clay silt in-wash, distinct from the earlier and later ditch deposits.

The southern end of the trackway led into an area that was 49m long by 16m wide. The narrow ditches at its entrance suggested that movement into this area was limited and controlled. Ditch F[951] extended east from the trackway boundary for 17.5m where it terminated, and it had a short gully spur on its north side. The ditch had a consistent V-shaped profile (Fig 7.38). The fill comprised a rapid accumulation of grey silty clay, with six sherds (103g) of pottery. A number of undated pits, probably of the end of the 12th century, were concentrated in a group that blocked this entrance, and may have marked the disuse of the close after the mid 12th century (see Fig 7.47).

THE EASTERN CLOSE

Very few features in this area dated to the early 12th century, and there were none post-dating the mid 12th century. Gully F[532] was 22m long and rounded at each end with a consistent shallow rounded profile, aligned roughly north-south, but eccentric to the alignment of the nearby boundary ditch. The fill was dark brown-grey sandy silt, and artefacts scattered along its length suggest this was deliberate backfill: 16 pottery sherds (147g), an iron nail and seven animal bone elements. The gully cut across the footprint of Saxo-Norman features belonging to Structure FS1 (Fig 7.32).

In the south-west corner of the close there were three pits that cut each other in sequence. The pits were of varying sizes and each pit contained varied fills that exhibited tipping lines, generally with lighter orange or grey clay and mixed natural chalk towards the base and darker silty clay or loamy fill above. A likely reason for this would be a short duration between excavation and backfill with the upcast, and a later period of further infill once the fills had settled. Four 12th-century pottery sherds (94g) were found in these pits.

THE CENTRAL ENCLOSURE

The west boundary of the trackway followed and realigned the boundary of the Saxo-Norman enclosure. Its full extent defined an early 12th-century roughly square enclosed area covering *c.*1,760sqm (Fig 7.37). The four ditched sides of the enclosure were roughly comparable, sharing relatively broad but shallow profiles (Fig 7.38, F[721/719]). The northern boundary originally had an entrance 5.5m wide, which was subsequently blocked off with a deeper and slightly rounded V-shaped recut (Fig 7.38, F[1316/1319]). The fill of these ditches tended to exhibit lighter yellow-brown clayey silt towards the base and at the edges as a product of in-wash with the larger bulk of upper fill comprised dark grey-brown silty clay infill with black-brown silty loam at the surface. Along the east boundary the ditch exhibited a series of tip lines, showing how the deliberate filling of the ditch had taken place with material carted in from elsewhere.

From the north boundary came nine animal bone elements, 49 pottery sherds (503g) and a copper-alloy buckle plate. Most of these finds were from the later recut. One of the pottery sherds had a cross fit with another sherd from further along the ditch, supporting the idea of a backfill event using material from the same source. The quantities of animal bone were actually very small, suggesting this was not domestic midden waste, but waste from another source. Almost 39% of the pottery sherds (35% by weight) were from surface fills, accumulated into the ditch by sag infill from late medieval levelling in the late 14th to 15th centuries. Pottery from earlier fill sequences in the boundary was exclusively early 12th century in date.

Along the west boundary F[1361], 46 pottery sherds were recovered (641g), only one of which had a later, 15th-century date, a couple of horseshoe nails and five animal bone elements. An iron knife was recovered from the south-west corner. The southern boundary produced no finds, but this was largely due to a small quantity of sections, with a quarter of its length lost within a natural sinkhole. The east boundary F[820] produced 14 pottery sherds (174g) and four animal bone elements.

Extending across the south-east corner of the enclosed space was a narrower ditch, F[728], which had a V-shaped profile and a flat base, 0.32m wide by 0.14m deep. This ditch appears to have connected the sinkhole to the boundary ditch, which may have been an attempt to drain the natural depression of standing water.

A POSSIBLE BUILDING AND YARD SURFACE, FS5

The central enclosure contained the greatest number of pits, postholes and gullies contemporary to the surrounding ditch (Fig 7.39). Three substantial parallel gullies, aligned north–south, may have functioned as sill beam slots for a potential building, which would have been up to *c.*26m long by *c.*8m wide. Many of the postholes were aligned with these gullies but did not appear to

have been major components of a timber frame. The distribution of medieval roof tile (excluding a group from the north that came from the vicinity of another building) was mainly from late medieval abandonment and levelling deposits in and around this central area. The fills of pits were largely sterile, with infrequent finds in lower fills, and the material from their excavation would have been a fairly immediate source of natural clay for use in construction. The location of most of these pits lay along the extent of the building walls and, while the pits of the early 12th century lay both inside and outside of the proposed building footprint, the pits of late 12th-century date seem to have been mainly excavated outside the building, perhaps indicating the period after which the structure was built. The late 12th-century clay pits may have been dug during a period of building refurbishment.

To the east of the building an irregular and shallow natural hollow had been levelled with clay, from which four pottery sherds (69g) of early 12th-century date were recovered. The surrounding flat area was then laid with a cobbled surface bedded into the clay which extended beyond the excavated area, and comprised compacted rounded cobbles with flint (Fig 7.40). Finds included 13 12th-century pottery sherds (108g), 19 medieval roof tile sherds, a fiddle key horseshoe nail and one late medieval horseshoe nail, which date the clearance of the site and the disuse of the yard surface. A horse skull came from the end of gully F[1129] on the east side of the building.

A small number of other metal finds from the yard area comprised other horse-related artefacts as well as knives, supporting the suggestion that the building functioned as a stable. Two partial horseshoes were recovered from pits within the central enclosure and both have been dated to the 11th–13th centuries. A total of four horseshoe nails and three knives were all recovered from nearby contemporary features. While deposited further afield, a further contemporary horse-related artefact came from the basal sediment of a pond to the north; this comprised an early 12th-century example of a side-link for the reins of a horse. Additional evidence for possible stabling on the site came from plant macrofossil evidence. A number of the late 12th-century pits adjacent to building FS5 contained deposits of semi-cleaned barley, which would have been adequate as animal feed but less suitable for human consumption.

ELEMENTS OF THE STRUCTURE, FS5

There were three substantial gullies that lay parallel, aligned north–south, which may have been beam slots marking the rectangular footprint of the possible building (Fig 7.39). The west side had a one continuous gully with a bulbous terminal at the southern end and two elongated postholes at its north end. The east side had two shorter gullies with a break between the two, possibly defining an entrance. The proposed location of the north-east corner therefore lay just outside the excavated area. The gully at the south-east corner tapered slightly. The possible entrance in the eastern side was 5.0m wide and on its north side the gully had a bulbous end. The south side of the entrance was disturbed by a post-medieval pit, so it is not known if the ends of the gullies were symmetrical.

All of these gullies were fairly deep; they had steep vertical sides that usually met squarely to the flat base (Fig 7.41, F[1065], F[1313], F[1129]). The bulbous ends of gullies had the same profile and were simply wider. These ends were probably also square in plan originally, perhaps housing more bulky timbers for upright supports; the removal of such timbers would have necessitated digging around the base creating rounded terminals. The postholes at the north-west corner also had vertical sides and flat bases. The grey-brown silty clay fills of these features were undifferentiated and contained little charcoal. Finds were sparse and unevenly distributed; 16 pottery sherds (149g) came from the south-west corner gully terminal, 11 pottery sherds (63g) came from the gully on the north-east side, and the remaining 14 pottery sherds (732g) came from the bulbous terminal on the north side of the east entrance. The first two assemblages are entirely early 12th-century in date, whilst the latter, from the surface fill, is late medieval.

Inside the structure, all of the early features of 12th-century date lay along the west side and were located less than 0.8m from the perimeter gully (Fig 7.39). They had an uneven distribution and later pits may have removed some features. At the north end there was a posthole square to the corner of the building with vertical sides and an uneven flat base, F[566]. Slightly to the south of this was a gully slot with a U-shaped profile that had a small triangular posthole on the inside edge and another shallow circular posthole located at its north end (F[1349], F[1357]). The surface at the southern end of the gully slot was cut by a sub-rectangular pit F[735], but the gully profile remained consistent beneath.

Roughly halfway along the west side there were two pits adjacent to each other and sub-circular in plan which, although both *c.*1.4m wide by 0.35m deep, were not structural, F[1235, 1232]. They had gently sloping sides and rounded bases, suggesting they were a source for clay, backfilled with grey-brown silty clay and dated with ten pottery sherds (46g).

The two postholes towards the southern end had straight sloped sides and flat bases, appeared much more likely to have been structural (Fig 7.41, 1070). A single undated posthole in the northern part of the building, and almost on the centre axis may also have been structural.

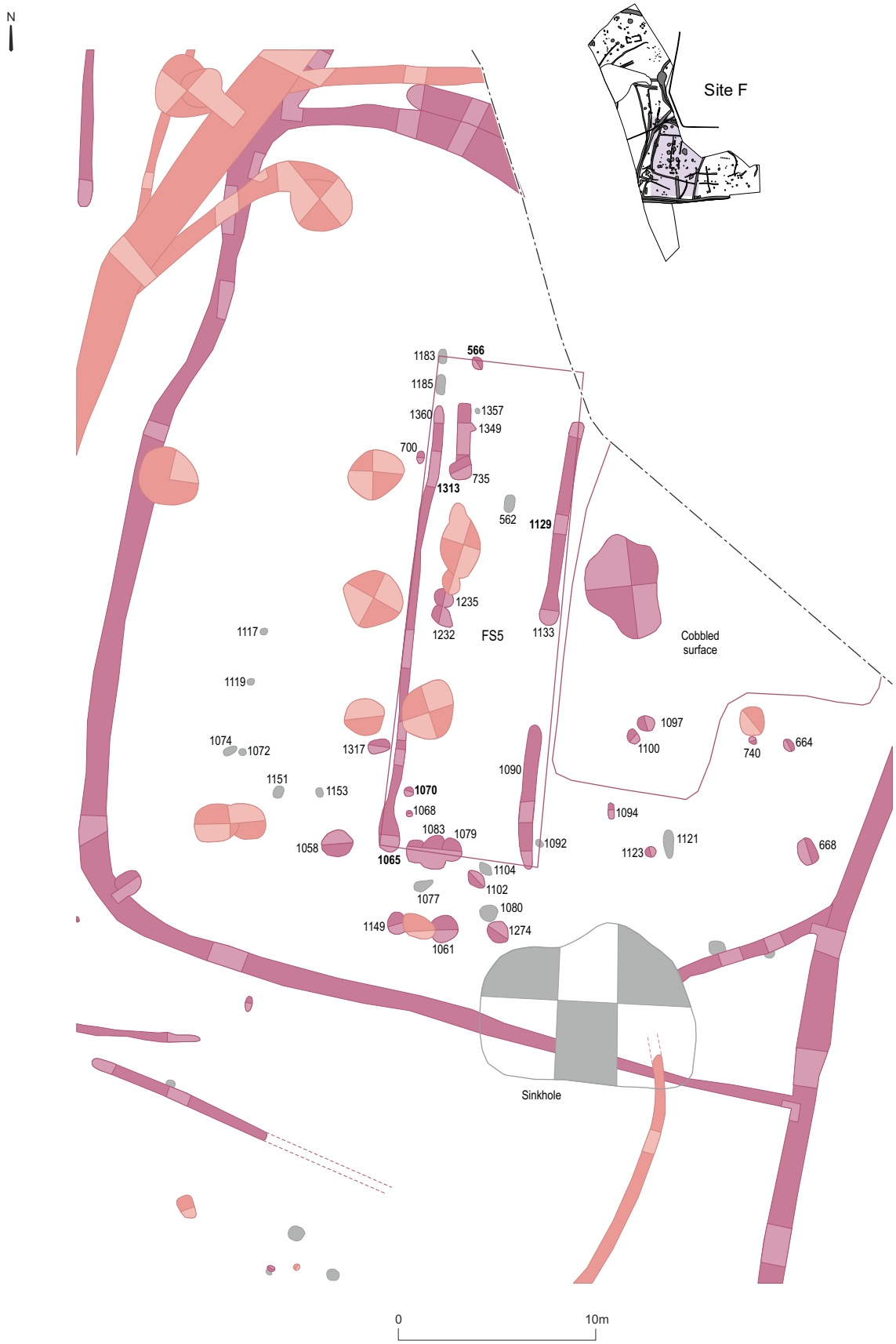


Fig 7.39 Layout of early 12th-century features within the central enclosure, Site F

Fig 7.40 Cobbled yard surface within the central enclosure, looking west, Site F

The distribution of roof tiles in the south of the site lay mainly around this building (Fig 7.42). There were 74 roof tile sherds inside the central enclosure, and a further 11 tile sherds located within 25m radius, of which 76% occurred in features alongside pottery of late 12th-century or later medieval date. A smaller group of 12 roof tile sherds come from structure FS2, to the east, demolished by the early 12th century (Fig 7.32).

PITS AND POSTHOLES ADJACENT TO THE STRUCTURE

While this part of the site was intensely dug over with pits throughout the 12th century there is a marked difference between the pits that produced pottery exclusively of early 12th-century date and those that produced pottery in the latter part of the century (Fig 7.39). Pits with earlier pottery tended to be smaller and were more numerous, concentrated outside at the southern end of the building. Some of these are thought likely to have been a source for clay used in construction. Later pits were fewer and much larger and, with the exception of two pits in the interior, the majority of those were located to the west of the building. Scattered small undated pits or postholes are likely to be from any point in the 12th century.

Thirty pits and postholes within the central enclosure lay outside the building, half of which contained early 12th-century pottery in small quantities, and the other half were undated. The greatest concentration of 11 pits at the southern end of the building were mostly dated,

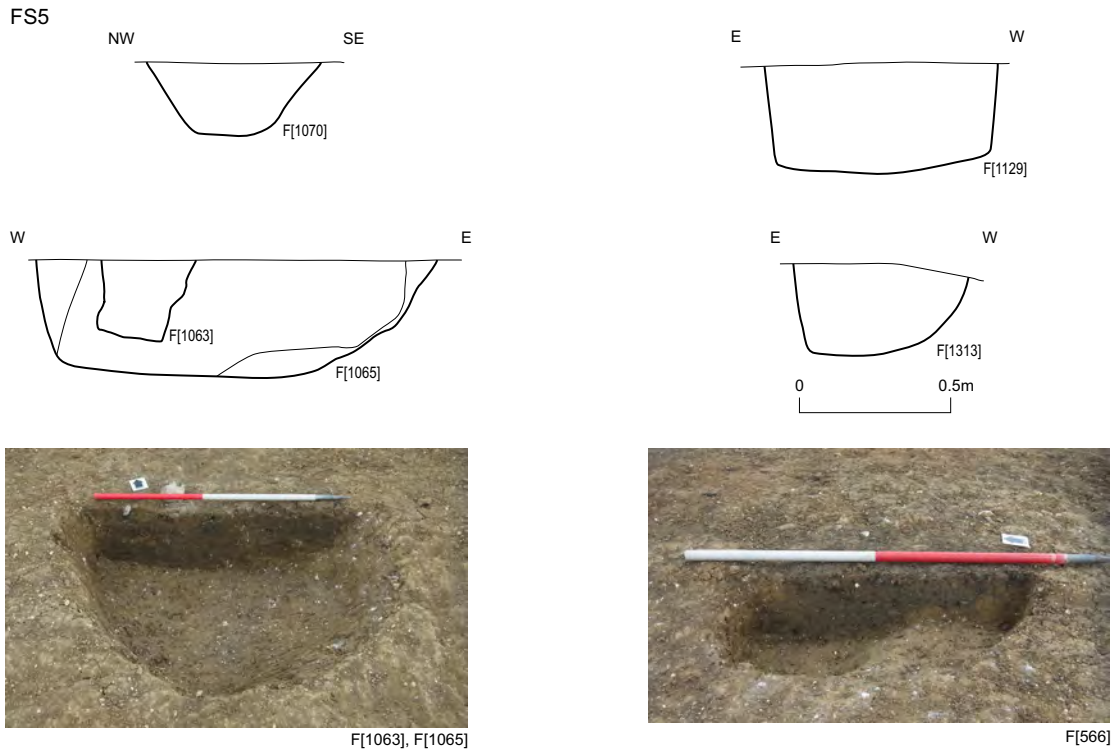


Fig 7.41 Features associated with building FS5, Site F

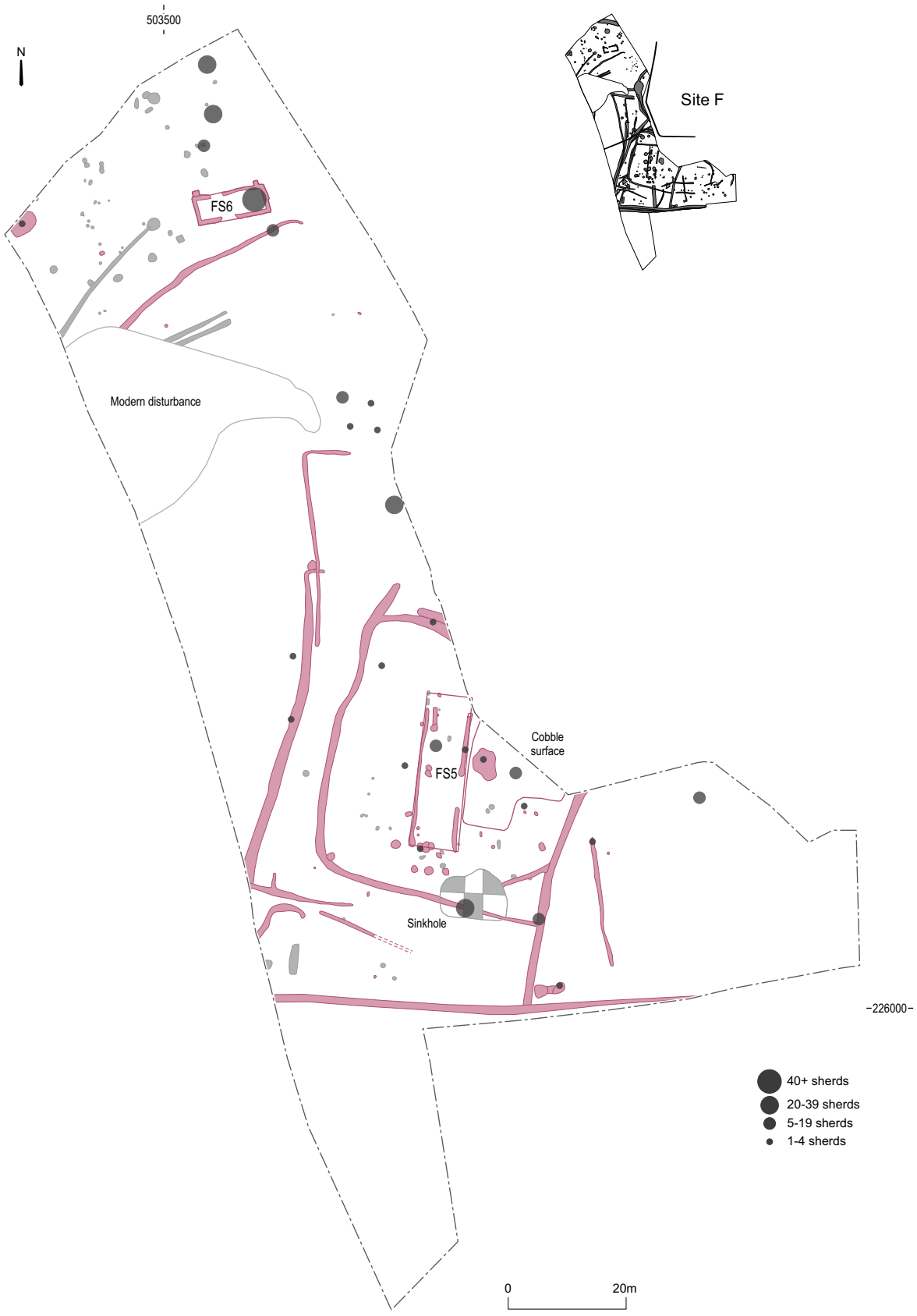


Fig 7.42 Distribution of medieval roof tile, Site F

and despite varied sub-circular shapes in plan, they usually had steep sloped sides with a depth that varied between 0.4-1.0m, and often rounded at the base. These were the most likely candidates for clay extraction.

A further 11 pits and postholes were scattered within the enclosure to the east of the building, mostly dated with pottery or by association with the overlying cobbled yard surface. One pit and seven postholes lay to the west of the building, but only those next to the building were dated. Six outlying postholes that appeared to form an L-shaped arrangement were undated. These were unequally spaced at 2.5-3.3m intervals and the profile of each suggested they were unlikely to be anything more substantial than fence posts.

A SINGLE-CELLED BUILDING, FS6

A possible dwelling was built before the mid 12th century on the north facing slope, overlooking the valley (Fig 7.43). The rectangular foundations of the building were laid out lengthways across slope. The external dimensions of the building were 13.8m long by 5.2m wide, and a single interior room was 11.8m long by 3.6m wide. The wall foundation was laid upon a relict subsoil, rather than natural clay, which was dark orange-brown silty clay present beneath the whole of the building occupation layers. The relict subsoil produced four pottery sherds (11g) of 11th-century date and sealed a pit that produced early/middle Saxon pottery.

Pottery retrieved from beneath the wall foundations suggests that they were laid in the early 12th century. The wall foundation comprised compact pulverised chalk with sub-rounded pebble inclusions, up to 100mm thick, and 0.70-0.80m wide (Fig 7.44). There were two significant breaks in the wall on the long sides of the building, which were initially thought to be entrances. The breaks were 2.0m and 2.5m wide and the positioning of opposing doorways would have been consistent with later medieval hall houses. However, closer analysis showed that the northern break was situated off-centre to the west, one third of the way along the wall. The two breaks were ill-aligned and there was no evidence for door lintels, posts or a threshold. The breaks are considered the product of differential preservation rather than intentional doorways.

A single doorway entrance was located at the western gable end, where a threshold was identified (Fig 7.45), which is unusual for peasant buildings of this date (P Stamper, pers comm). The threshold was formed of a cracked and weathered slab of greensand, which may have been three or four stones laid together, F[309]. The threshold was 1.4m long by 0.3m wide, bedded onto an 80-100mm thickness of pulverised chalk, as part of the foundation circuit.

Outside the building, extending the width of the threshold for 1.2m to the west, was a small area of rounded river worn cobbles bedded into compact natural clay which formed a floor surface F[311].

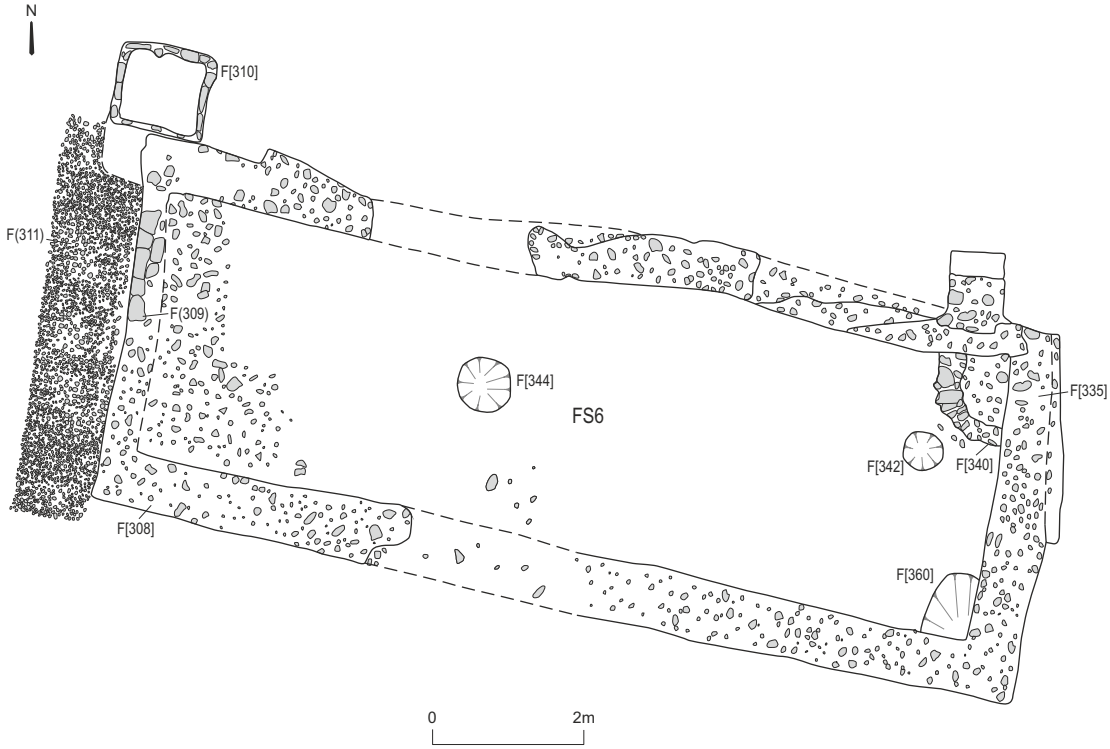


Fig 7.43 Detailed plan of the medieval building FS6

Fig 7.44 Medieval building FS6, looking east, Site F

Fig 7.45 Entrance threshold, building FS6, looking south, Site F

Fig 7.46 Stone-lined pit, building FS6, looking south, Site F

At the east end of the building on its northern side there was a short buttress, 1.0m long, which supported the downslope side of the building. Against the same wall face at the west end, instead of a symmetrical buttress, there was a stone-lined pit, F[310] (Fig 7.46). The pit was 1.1m by 1.0m in plan; it had pitched limestone and greensand around three sides, but was not faced against the building wall. The base was flattish, if slightly uneven, and came down directly onto natural chalky clay. The fill comprised light orange-brown sandy clay with chalky flecks and occasional limestone rubble, 0.26m deep. The purpose of the pit is not known.

Few features were identified within the interior of the building but where they were present they cut the relict subsoil beneath the building but were not cut particularly deeply into the natural substrate itself. There were two post-pits along the central long axis of the building, one which was slightly less than halfway (F[344]) and the other positioned 1.0m in from the east wall (F[342]). Neither of these was well formed or well preserved; the central post-pit was quite ragged but fairly deep set into a hard patch of gravel clay, and the other posthole at the east end had only the flat base surviving. Set into the south-east corner against the wall was a sub-rectangular pit, 1.0m long by 0.55m wide by 0.18m deep with straight sides and a flat base.

The fill comprised dark brown clayey silt with chalky fragments.

There was no evidence for a timber cruck frame and it is presumed the cob walls must have been at least partially load-bearing. The two axial posts, marked by F[342] and F[344], provided support either to simple trusses or to a ridge piece. One interpretation could be that the east end of the building was hip-roofed, with F[342] supporting the truss before the hip. Pit F[344] lies roughly midway between F[342] and the west gable, and could mark a truss or other division which divided the main space into two bays; roughly 15ft and 18ft. The roof was at least partially tiled, possibly around the fire hole. A large quantity of daub was found in a nearby pit to the north, but none came from the structure itself. The poor level of preservation means that evidence for the fabric of the walls is limited to the foundations, internal rubble and scattered debris.

Inside the north-east corner there was a concentration of large rounded cobbles and roughly hewn limestone chunks, <160mm in size, which seem to have formed a foundation layer for a structure above. The stone was compacted down into the floor surface, rather than having a proper foundation cut, and although there was no evidence for scorching, it is possible that it may have been the base for a hearth or oven.

There were four principal internal layers that overlay the 11th-century relict subsoil, perhaps phases of sequential floor surfaces. Dark orange-brown clay with frequent coarse pulverised sandstone made up a fairly hard floor layer that was 60-80mm thick. There were no finds from the floor, however the light brown-grey sandy silt layer above it contained occupation debris comprising late 12th-century pottery and had been buried amongst chalk and limestone rubble, which derived from the wall fabric. Amongst the rubble were six fairly large sherds of roof tile with pegholes, found just inside the doorway (Fig 7.53). Overlying the rubble was dark grey-brown silty clay that formed an abandonment layer, from which a single pottery sherd of the 13th-14th centuries derived, along with a further 30 sherds of roof tile. On this basis the likely occupation was confined to the middle part of the 12th century, with disuse before the end of that century. The building seems to have remained standing as an empty shell for some time thereafter, and may have been cleared along with the rest of the site in the late medieval period.

A localised distribution of roof tiles was derived from the demolition of the building (Fig 7.42). A few floor tile sherds occurred, included in the sherd count, but were infrequent on the site as a whole and suggest that if floor tiles were used these must have been recovered after demolition and reused elsewhere. There were 68 roof tile sherds from building FS6 as a whole, and a further 80 tile sherds located within 25m radius, of which 85% occurred in features alongside pottery of late 12th century or late medieval date. A smaller group of 11 tile sherds come from late medieval deposits in the vicinity of the pond, south-east of building FS6, *c.*30m away.

Pits and gullies close to the building

Features in the north of the site were more widely scattered than elsewhere and, with a much wider range of spot dates, there is less certainty of the period to which undated features might belong (Fig 7.37). Only three features (F[893], F[846], F[769], produced exclusively early 12th-century pottery, and these appear to have been used for the disposal of small quantities of waste.

Sub-circular pit F[893] was the largest at *c.*4.9m long by over 2.8m wide, and it truncated an early/middle Saxon pit at the edge of excavation. The upper 0.14m of dark brown-grey silty clay was little more than a spread across the surface of the earlier pit that contained five sherds (48g) of early 12th-century pottery and three animal bone elements. The other two features were individual shallow postholes (F[846] and F[769]) with vertical sides and flat bases, located separately to the south-west of building FS6. Their grey-brown silty clay fills reflected the majority of those in the vicinity.

From the wider distribution there were 42 pits and postholes within 25m of building FS6 that were undated. Of these four formed a roughly square arrangement reminiscent of a four-post structure, located 9.5m to the north-east of building FS6, and *c.*20m north of a late Iron Age/early Roman cremation cemetery (FS4; Fig 6.20). A second four-post structure (FS3) was situated on the ridge around 20m south-east of building FS5 (Fig 6.20). These two structures are thought to be Iron Age or Roman and relate to the cremation cemetery within Site F; they have therefore been discussed in Chapter 6. With no clear arrangement, no definitive structural characteristics and no finds, the distribution of undated pits and postholes cannot be interpreted.

The gullies were all roughly similar and the largest was clearly contemporary with building FS6. Gully F[301] crossed the slope to the south of the pits on an irregular north-east by south-west course, lost to modern disturbance at the south-westerly end (Fig 7.37). It had steep sloping sides and a sloped base, reflecting the angle of the hillside, which became narrower as it reached its north-east terminal. The light brown-grey silty clay fill was in-wash that produced seven pottery sherds (112g) of early 12th-century date seven roof tile sherds and animal bone.

Three undated gullies lay on similar alignments within 10m of gully F[301] that terminated within the area, one downslope and two upslope. The gullies all had fairly straight sides and were slightly rounded at the base, but tended to be shallow grooves.

Boundary alterations and activity after the mid 12th century

On top of the hill, behind the building, the closes continued in use with reorganisation of the boundaries, most of which did not last into the 13th century. The early 12th-century layout of the closes was consolidated into a single area of land, and it would seem likely that building FS5, in the central enclosure with the cobbled yard surface, was perhaps briefly refurbished (Fig 7.47). A small number of large pits immediately next to the building suggested significant clay extraction. Pottery of the late 12th century in the pit bases and later material exclusive to the upper fills indicated site levelling after the initial fills had accumulated. A single pit near building FS6 also dated to this period. A smaller plot was created between the two buildings; postholes and gullies were present within. At some point before the end of the century it seems that both buildings were abandoned but that remains were left standing to become slowly derelict. Most of the ditches were filled and the whole area was incorporated into a single unit. Only the perimeter ditches were retained to the north and east of building FS6, along with a pond on the eastern boundary. The southern boundary was probably also retained, but produced no finds.

Changes to access

To the north of the early 12th-century enclosure and trackway was a smaller parcel of land (Fig 7.47). There was some indication that the transition from the early 12th-century layout to that of the latter part of the century was conducted incrementally. The major change was the redundancy of the ditch-edged trackway which seemed to become incorporated into the large enclosure to the east. This had the effect of moving the north–south access from Luton Road elsewhere. The former trackway was quite deliberately blocked as an east boundary was diverted into the path of the former trackway, and a large pond was place centrally with these ditches extending from it.

The pond

At the intersection of ditches F[762], F[489] and F[530] there was a large oval pond (Fig 7.47). The pond covered an area of *c.*60sqm and was 1.2m deep. Its position at the top of the slope made it ideal for catching and regulating water run-off, which may have been needed for keeping animals although it is thought the sides may have been too steep to function as a watering hole. The difference in level between the upslope and downslope edges was 0.64m (Fig 7.48). The southern upslope edge was cut back slightly where ditches from the west and south curved around to join in plan. Below this there was a steep side and the base of the pond was flat, sloping with the topography. The northern downslope edge arose gradually, almost to the surface of the surrounding substrate, creating a berm between the base of the pond and the northern downslope run-off ditch, F[489]. The top of the berm would have been the maximum water level of the pond, with excess water spilling into the run-off ditch.

Comparison of the fills indicated that the orange-brown clay silt below this level was mottled, indicating the formation of iron salts as a product of fluctuating water levels. A single pottery sherd (71g) from this basal sediment was early 12th century in date, together with a side-link from a horse harness with early-mid 11th-century decoration. Pottery in the ditches around the pond was from the end of the century, so the pond was certainly in use after the mid 12th century, but its provenance as part of the early 12th-century layout is unlikely. The fill was a sequence of dark black-brown silty clay and loam, which was a combination of abandonment deposits where organic detritus had gathered in the abandoned pond after it dried up, followed by infilling in the 14th-15th centuries. This surface fill produced 26 sherds (154g) of pottery, and four fragments of medieval tile, together with other finds.

The ditch that fed the pond on its south side F[623] had steep sides and a flat base, which quickly accumulated clay silt and chalk in-wash from the base and sides further upslope (Fig 7.49). A great deal of material also accumulated rapidly in layers, tipped in from the east, possibly from activity in a neighbouring plot. The consequence of this accelerated infill was that this boundary was one of the few to require recutting within the 50-60 year span of time after the mid 12th century. Two slightly smaller U-shaped ditch recuts were recorded on the inside edge of the boundary, curving around the outer edge of the pond and feeding into ditch F[530]. In general, although colouration became darker towards the surface and incorporated more in-washed topsoil and detritus, the fill texture remained largely clay silt. There were seven pottery sherds (23g) to date the recut to the late 12th century.

The ditch feeding into the pond from the west, F[530], lay across the top of the hill slope and whilst it marked a clear boundary between two pieces of land that had been separated, it would have been largely dry. As a consequence the ditch did not accumulate fill sufficiently quickly to require recutting. The ditch was fairly rounded in profile with a shallow edge on the downslope side, and a steeper edge opposite. The fill

Fig 7.47 Layout of features after the mid 12th century, Site F

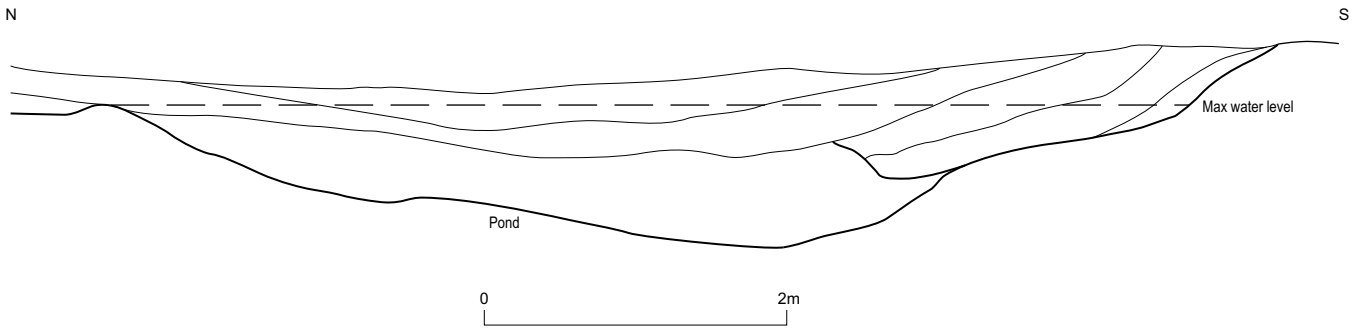


Fig 7.48 Longitudinal transect across the pond, Site F

was dark brown silty clay with occasional chalk flecks and gravel, it produced six pottery sherds (29g).

The downslope over-flow ditch, F[489], was significantly smaller than the ditch feeding water into the pond. This was a relatively narrow and slightly rounded V-shaped ditch provided drainage for the overspill from the pond, and since the water derived from rainfall this would rarely have overflowed. The fill that gradually accumulated was largely derived from the pond sediment, comprising mottled grey-orange clay silt. The ditch was recut with a similar drainage channel, F[486], in the late 12th century and a thin abandonment layer formed above both channels in the 13th century.

A SMALL CLOSE

With the abandonment of the trackway and the clear partition from land to the north and east, the small area that had been occupied by the northern end of the early 12th-century trackway was then enclosed (Fig 7.47). Ditch F[762], which fed the pond, acted as its east boundary.

The north boundary had two parallel ditches, one which connected to the pond, F[530], and a smaller ditch, F[639], that terminated short of meeting the east boundary. This latter ditch had a steep V-shaped profile with a narrow angled base. Grey-brown chalky clay in-wash lay at the base, overlain by dark brown-grey silty clay infill. Pottery from both fills post-dated the mid 12th century, comprising 34 sherds (275g).

The west boundary was also V-shaped, although asymmetrical. The fill was similar to that along the north boundary, and is likely to have been backfilled in the late 12th century.

A small number of features were clustered within the enclosed plot and may suggest that some sort of structure might have been present. There was an alignment of four postholes, covering a line 3.5m long, which were oval in plan, and all U-shaped in profile with rounded or flat bases, between 0.46-0.88m in diameter and 0.22-0.26m deep. Fill materials comprised mainly brown sandy silt with a total of three pottery sherds (27g). A single isolated pit, slightly tapered in plan, had vertical sides and a flat base. The orange-brown silty clay fill was redeposited natural with two pottery sherds (11g).

An entrance into the close was probably located on the south side at the opening of the former trackway. The trackway entrance was perpetuated by two parallel narrow gully slots aligned north-east to south-west, so shallow that they were little more than soil marks. A small group of three postholes and one small pit lay at their northern extent, but were of similarly poor preservation.

A pit located part way along the course of the gullies lay on the east side of the proposed entranceway

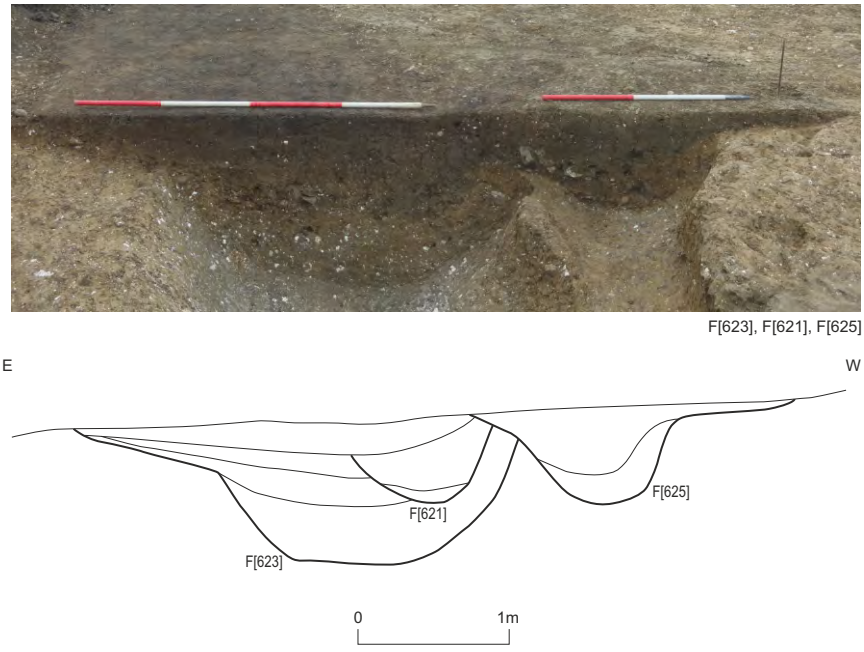


Fig 7.49 Ditches connected to the late 12th-century pond, Site F

F[1283]. The pit had fairly regular straight sloping sides and a flat base, and it seems likely to have been dug to extract clay. Merging shades of dark grey silty clay with charcoal and chalk flecks produced a few residual finds.

A narrow ditch, F[1245], which extended eastward from the pit was of similar size and profile to the other boundaries on the southern side of the close. It produced nine pottery sherds (84g) of late 12th-century date from a single backfill event.

SOUTHERN LAND UNIT AND BUILDING FS5

With the consolidation of the early 12th-century closes, the boundaries were simplified and before too long the latest close also became redundant. Boundary ditch F[1237] cut this area off from the southern land unit and left it to be combined with land to the west. The ditch had a widely splayed V-shaped profile, but it was not open for long as the dark grey-brown silty clay loam was entirely infill. The distribution of pottery along the boundary was fairly even, with a total 117 sherds (1,175g).

The southern boundary F[945] recut the early 12th-century ditch, which lay on the southern edge of the site. This was probably one of the largest ditches excavated, broad at the top with gently sloped sides that suddenly dropped vertically onto a flat base, 0.98m deep. Basal fills derived entirely from in-wash, which were generally lighter orange-brown clay silt with chalky flecks, whilst the bulk of the fill was grey-brown silty clay. This lacked the loamy texture of the west boundary and had no finds, suggesting that it was a much more gradual accumulation, and by its substantial size and topographic location, may still have been present in the late medieval period.

A connecting gully from the sinkhole curved to join the southern boundary. This seems to have been an attempt to clear standing water from the natural depression above the sinkhole, much as it had been in the earlier phase.

Several pits continued to be associated with the position of Building FS5, and appear to have been for clay extraction. It is not clear if Building FS5 was still in use during this period, but it is possible that the extracted clay was being used for the refurbishment of the structure or perhaps for use in the construction of other boundary features not evident during excavation. There were two large pits inside, one of these with smaller pits either side. Three pits were on the outside were arranged along the west wall of the building and one on the southern gable end. There was an isolated pit next to the cobbled surface to the east.

Slightly further away from the building and to its west, there were four large, flat based pits, probably also used for clay extraction. The pits were widely spaced along the west boundary, and a cluster of undated clay quarries lay in the south-west corner of the enclosure associated with the southern of these. An isolated pit and posthole lay south of the building.

THE NORTH-FACING SLOPE

The lack of finds or features of late 12th-century date supports the view that building FS6 was an abandoned shell by the end of the century. A nearby ditch at the very northern edge of the site was created soon after this abandonment.

Ditch F[207] had widely splayed, gently sloping sides, which were slightly ragged and uneven from root disturbance. The break of slope was sharp and despite more recent surface truncation on the slope, the base of the ditch was level and predominantly flat across the slope. Initial dark orange-brown silty clay fill derived from slippage, mainly on its upslope side, with the downslope edge accumulating a far thinner band of in-wash from the latter part of the 12th century (one pottery sherd, 6g). As a cross-slope boundary the ditch was dry and the accumulation of fill materials was slow. There was no dumping along the boundary and given its relatively substantial size it is likely it continued to survive as a dry ditch earthwork. Darker grey-brown loamy clay accumulated as the ditch grew older, perhaps choked with vegetation. The uppermost fill derived from infill in the mid 14th century, producing the majority of its pottery (11 sherds, 80g).

LATE MEDIEVAL CLEARANCE AND LEVELLING

After the disuse of the buildings and the filling of ditches at the end of the 12th century there was little evidence of further activity. With the exception of boundaries at the margins of excavation, all of the former sub-dividing ditches and gullies had been filled. There was no evidence of arable farming, suggesting the site was abandoned to scrubland or converted to pasture. The buildings may have continued in some minor capacity as animal shelters, but were ultimately left to decay at their own pace.

This state of entropy came to an abrupt end in the mid 14th to 15th centuries. The buildings, or the remains of overgrown semi-decayed debris that remained, were cleared. This period saw densities of residual pottery alongside late medieval sherds being deposited in the upper fills of surface features as depressions and hollows were levelled (Fig 7.50). Late medieval pottery was found exclusively in the uppermost fills, frequently above early/mid 12th-century deposits that had settled and sagged. A major focus of filling was the top of the sinkhole.

The pond at the north of the site received several discrete dumps of material but was not filled in its

Fig 7.50 Late medieval and post-medieval features, Site F

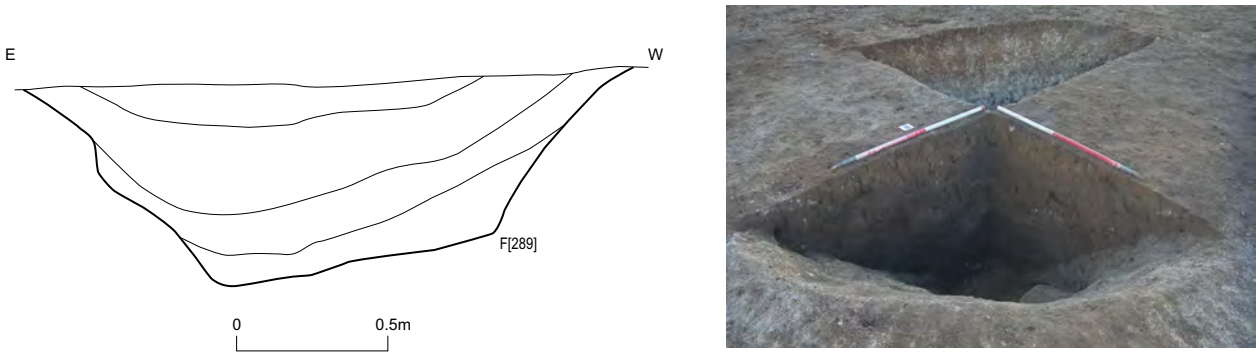


Fig 7.51 Post-medieval pit F[289]

entirety, possibly because it lay on the boundary with the neighbouring plot and it was still acquiring fill in the late 15th century. Boundaries at the edges of the site were wholly filled by this time, but it was not clear if their final horizons accumulated gradually, or were part of the clearance event.

POST-MEDIEVAL FEATURES

There were three isolated pits that together account for the whole of the post-medieval finds assemblage (Fig 7.50). The finds comprised pottery of the 16th to 17th centuries (54 sherds, 733g), animal bone, two copper-alloy pins, clay tobacco-pipe stems and a nail.

The largest pit was sub-circular in plan and *c*.4.0m in diameter, 1.2m deep F[289]. It had straight steeply-sloping sides and a flat base (Fig 7.51). A sequence of well differentiated sandy silty clay indicated that it was reinstated from a variety of sources over a relatively short space of time. Post-medieval pottery (ten sherds, 121g) was accompanied by residual sherds.

Pit F[626] was oval in plan, 1.0m wide by 0.6m deep, filled with silty clay. It accounted for almost half of the post-medieval pottery (25 sherds, 378g) as an isolated dump. The pit cut the southern edge of the late medieval pond fill deposits, but was clearly a separate intervention.

The remaining finds came from a shallow spread of soil, 0.08m thick, that overlay an area of medieval pits, F[1088]. To the south of this there was a shallow ditch that lay on the alignment of a trackway mapped by the Ordnance Survey in 1882. This may have been a hedgerow, as the excavated base was uneven and pitted with former voids and hollows.

A NATURAL SINKHOLE

Of interest is the impact of a natural solution hollow upon the surviving archaeology. A single large pit, [1166], that was hand excavated to 1.4m depth, and then subsequently machine investigated to a further 3.0m depth without reaching the base, produced a sequence of backfills. The lower fills comprised redeposited natural, dense dark clay, and silt with gravel drawn into the funnel. Overlying these were layers of friable clay sand and silty clay, generally associated with weathering or accumulated silt. The medieval horizon lay within the top 1.0m of hand excavated fill, in which pottery was stratified by date; this indicates that

Fig 7.52 A natural sinkhole, Site F

the feature was a visible feature during the medieval period, and several ditches extending from the hollow may have been attempts to drain it. Pottery of 14th to 15th-century date occurred as a distinct horizon, identified as the levelling event. A thin crust of dark loamy topsoil lay at the surface where more post-medieval and modern soils had begun to settle.

Specialist studies

Querns

by Andy Chapman

Seven contexts at Site F produced lava querns, weighing 2,095g. Two contexts produced small fragments, 15-50mm long. The other five contexts all produced single fragments, usually with both surfaces intact, weighing 200-630g. There is a single fragment from the circumference, indicating a stone diameter of *c.*350-400mm and this is also the thickest stone, 72mm thick at the outside edge and probably a base stone. At the other extreme there is a fragment 20mm thick, which would have come from a very well-worn stone, perhaps also a bottom stone.

In addition, 7% of the circumference from the top stone of a lava quern, *c.*300mm in diameter, is so well worn that it is only 19mm thick at the outside edge. The grinding surface is worn smooth and the upper surface is uneven with sparse chisel marks 20mm long and parallel.

Lava querns and millstones were imported in quantity from the Eifel region of Germany. They were still being imported following the Norman Conquest but other stone types were often preferred.

Roof tile

by Pat Chapman

Site Q

Three sherds (260g) are 13mm thick and made with hard sandy dark red-brown clay. A single sherd has a peghole, 15mm in diameter. One sherd is made with the same fabric as the other roof tile, but has lost all the surfaces, and would have been over 25mm thick.

Site F

There are 252 roof tile sherds (14.8kg; Table 7.3). Of these 247 are plain flat peg tiles, with four ridge tiles and one probable bonnet tile. None of the tiles are glazed. The average sherd weight is 59g. Large sherds measure 110mm by 90mm, decreasing to small fragments.

Fig 7.53 Plain peg tile from layer F[312], scale 20mm

Most of the tiles are sandy, sometimes coarse sandy clay, fired to various shades of orange to orange-brown, or red to red-brown, all with inclusions comprising occasional large flint, gravel or calcareous material up to 20mm long, with tiny inclusions of the same material, 1-3mm long. Four tiles are made with hard fine pink clay and three are made with white clay. Some tiles have been neatly made; others are rougher from the same contexts. Levels of abrasion vary, partly dependent on the quality of the tile, with laminated sherds not uncommon. Patches of white lime mortar still adhere to a few tiles and there is one tile with an edge burnt black, from use in a hearth or oven.

The tiles are 10-20mm thick, the majority typically 12-15mm. The seven pink and white tiles are 12-13mm thick. A sherd from layer 312 is 180mm (7 inches) wide and joined to another sherd from the same layer to 295mm (11½ inches) long (Fig 7.53). This would be a fairly average size, as the standardised tile, by Act of Parliament in 1477, was 10½ by 6½ inches.

The 26 surviving complete or remnant circular pegholes range from 10-17mm in diameter, with a mean of *c.*15mm. Both neatly drilled holes and sub-circular punched holes are present.

The four ridge tile sherds are 15-18mm thick; one is blackened on the underside. The bonnet tile would have been used on a hipped roof, and has a remnant peghole.

Table 7.3: Quantification of medieval ceramic roof tile, Site F

Context	Number	Weight (g)	Comment
F[207] ditch	28	1,609	2 pegholes 15mm diameter, 2 pink sherds
F[282] pit	2	72	-
F[282] pit	1	30	-
F[282] pit	1	65	-
F[289] pit	39	1,647	3 pegholes 15mm diameter, 1 white sherd
F[301] gully	7	287	1 peghole 15 diameter
F[312] layer	6	1,393	I tile 295x180mm, 4 pegholes 14-17mm diameter
F[313] floor	30	1,760	3 pegholes 12-13mm diameter, 1 white sherd
F[328] posthole	7	555	1 peghole 10mm diameter, 1 ridge tile
F[334] layer	23	1,055	-
F[335] wall	7	652	2 pegholes 15mm diameter
F[377] ditch	4	143	-
F[387] pit	12	782	2 pegholes 13-15mm diameter
F[410] layer	19	492	-
F[344] pit	2	590	peghole 12mm diameter
F[530] ditch	5	178	1 white sherd
F[607] ditch	1	90	peghole 11mm diameter
F[616] pond	1	100	-
F[621] ditch	1	20	-
F[705] pit	1	145	-
F[721] ditch	3	75	-
F[738] pit	4	89	2 pink sherds
F[762] ditch	2	120	-
F[772] hedge	1	55	-
F[777] ditch	1	170	peghole15mm diameter, blackened on reverse
F[893] pit	1	30	-
F[893] pit	1	17	-
F[1051] pit	4	225	1 remnant peghole
F[1088] pit	2	200	1 black edge from fire damage
F[1159] pit	16	670	peghole 14mm diameter, 1 blackened
F[1159] pit	1	50	15mm thick ridge tile
F[1159] pit	6	682	3 pegholes 15-17mm diameter
F[1197] pit	3	150	1 bonnet tile 15mm thick with remnant peghole
F[1222] pit	5	173	-
F[1230] pit	2	44	-
F[1230] pit	1	123	18mm thick ridge tile
F[1248] ditch	1	45	-
F[1330] ditch	1	247	18mm thick ridge tile, underside blackened
Total	**252**	**14830**	**-**

Table 7.4: Quantification of medieval floor tile, Site F

Context	Number	Weight (g)	Comment
F[282] pit	1	20	Sandy orange fragment
[239] pit	1	45	Sandy orange fragment
[557] layer	1	75	25mm thick, fine sand
[705] pit	2	837	30mm thick, surviving width 130mm
[764] ditch	1	298	40mm thick, possible brick
[1159] pit	9	1716	4 tiles, 5 fragments 30mm thick, surviving width 130mm
[1159] pit	2	410	25mm thick
Totals	**17**	**3401**	-

FLOOR TILE
BY PAT CHAPMAN

The assemblage of floor tile from Site F is small, but varied (Table 7.4). One plain tile sherd (75g) from layer 557, made with hard fine sandy orange clay, is 25mm thick and slightly chamfered. The top is quite smooth and the underside pitted. This would be a tile of some quality.

Eight tiles (*c.*3kg) come from pit F[705] and separate fills in pit F[1159]. These tiles are made with very hard fine sandy clay fired to red and purple in colour, with occasional large flint or gravel up to 12mm long and occasional tiny inclusions, 1-5mm. The top surfaces are black, uneven but smooth and the undersides gritty. Six tiles are 30mm thick and more than 130mm square (5¼ inches). Two tiles from pit F[1159] are 25mm thick with heavily pitted top surfaces that could be from an oven or kiln.

DAUB
BY PAT CHAPMAN

A fine assemblage of daub comes from Site F, comprising 256 pieces (*c.*5.8kg). The daub is made with well mixed fine chalky clay, heated or burned to hard pale grey buff and black. The largest surviving fragments are 40-65mm thick, with most *c.*30mm thick, down to 15-20mm thick, with some tiny fragments.

Most of the fragments have wattle impressions, typically 15-20mm in diameter, a few smaller and some with an almost complete circumference. Most of the impressions are closely-set, reflecting the horizontal woven withies between the sails. Where two sets of impressions survive, they are 30mm apart, from opposing woven wattles. The thickness of the daub from the outer surface to the impression is 15-20mm (Fig 7.54).

The majority of the fragments have one surface that is relatively flat; some have been smoothed with the finger marks still visible and some surfaces are rougher. A few fragments have two surfaces at right angles, perhaps where the daub met the building frame. Occasionally the flat surfaces have become detached from the main body into plates, 5mm thick. A few pieces have stem impressions on a flat surface. About a dozen fragments are soft and friable, white in colour, and blackened with a few ill-defined wattle impressions.

The structure from which they came may have been built with an earthfast timber frame with wattle panels in between posts. These panels are usually 75-100mm thick, with the central wattle framework of the sail, 40mm thick (Sunshine 2006). The assemblage is of unusually high quality and probably came from a building.

Fig 7.54 Wattle-impressed daub, posthole F[261], scale 20mm

CHALK MORTAR
BY PAT CHAPMAN

What appear to be two lumps of chalk, white with hints of pink and weighing 237g, come from ditch F[983] at Site F. One lump is *c.*95mm by 65mm and 30-45mm thick, and has a flat area on one surface. The other lump is quite small. These could possibly be the remains of quarried chalk, cut into blocks, used in mortar or ground down to mix into slurry with chalky clay and binders to make chalk cob. No binding material is visible.

SAXON, MEDIEVAL AND LATER POTTERY
BY PAUL BLINKHORN

SITE Q

There are 645 sherds (9,988g) of pottery of Saxon, medieval and later date recovered from Site Q. The estimated vessel equivalent (EVE), by summation of surviving rim sherd circumference is 6.65 for an assemblage that is almost entirely of early medieval, 11th to mid/late 12th-century date.

Many of the wares are types which are well-known in the region. Where possible, they were recorded using the conventions of the Bedfordshire County Archaeology Service type-series (e.g. Baker and Hassall 1979). Alphanumeric codes prefixed F are used in the database.

F001: A01: E/MS Organic-tempered ware, 5th-9th centuries, 1 sherd, 15g, EVE 0.10

F095: A08: Ipswich ware, early 8th-mid 9th centuries, 1 sherd, 13g, EVE 0

F200: B01a: T1 (2) type St. Neots ware, AD1000–1200, 132 sherds, 1365g, EVE 1.67

F205: C12: Stamford ware, AD900–1200, two sherds, 13g, EVE 0

F300: C60: Hertfordshire greyware, mid 12th-14th centuries, one sherd, 10g, EVE 0

F301: C01: Light orange sandy ware, 12th-13th centuries, five sherds, 38g, EVE 0

F302: C67: Mixed inclusions, 12th-14th centuries, 41 sherds, 700g, EVE 0.39

F330: B07: Medieval shelly ware, AD1100–1400, 21 sherds, 215g, EVE 0.18

F360: C03: Fine sandy reduced ware, 12th-13th centuries, 71 sherds, 1279g, EVE 0.42

F361: C59a: Coarse sandy ware, 12th-13th centuries, 106 sherds, 1,902g, EVE 1.26

F362: C03a: Fine sand and flint, 12th-13th centuries, ten sherds, 209g, EVE 0.24

F363: C59b: Sandy ware, 12th-13th centuries, 170 sherds, 2,408g, EVE 1.68

F401: E02: L. med. oxidized ware, mid 14th-16th centuries, two sherds, 7g, EVE 0

F425: P01: Glazed red earthenware, 16th century, two sherds, 20g

F428: P30: Staffordshire slipware, mid 17th-18th centuries, one sherd, 6g

The following, not included in the Bedfordshire type-series, were also noted:

F201: Cotswolds-type ware, 11th-13th centuries (Mellor 1994), 79 sherds, 1778g, EVE 0.71

F305: Shell-dusted ware, 12th-13th centuries? 1 sherd, 17g, EVE 0

The early Saxon sherd <P416> is typical of the region, and is a rim sherd with a slightly everted profile from a jar. Ipswich ware is a relatively rare find in Bedfordshire, found at less than ten sites (Blinkhorn 2012a, fig 37), most of which are along the River Great Ouse. Two findspots are along Ermine Street, Roman road. The find at Thorn is far to the south near to the ancient line of Icknield Way, with settlements near to that route producing Ipswich ware further to the east (*ibid*. 75).

The range of pottery indicates that post-Roman activity at the site was very short-lived between the 11th to late 12th centuries. The wares are fairly typical of sites in the region, although there are perhaps quite significant differences when compared to the early medieval assemblages from the central and northern areas of the county. The large quantity of Cotswolds-type ware is unusual, which is a common find on sites to the west around Oxford and in the Cotswolds, but is rarely found in any quantity at more northerly areas like Bedfordshire. For example, just 19 sherds were found at Tempsford among over 2,000 sherds of other 11th and 12th-century wares (Blinkhorn 2005). The small assemblage of Fine sand and flint ware (Fig 7.55, <P417>) is also unusual, formerly known as Newbury A/B ware (Mepham 1997) and renamed Kennett Valley ware (L Mepham, pers comm); it also comes from a westerly source and is found in large quantities in Berkshire, Wiltshire and Oxfordshire (Mepham 1997, fig 29).

The lack of large scale excavations on medieval sites in southern Bedfordshire makes comparisons with pottery from other sites rather difficult. A small assemblage of 52 sherds from Friary Fields, Dunstable did not produce any sherds from westerly sources (Sudds 2004, table 4),

and just two sherds of Fine sand and flint ware were among over 100 sherds from Luton Castle (Blinkhorn 2011). It is difficult to judge from this assemblage alone whether the settlement at Thorn had strong links to the west, particularly Oxford and perhaps the Cotswolds, which are not seen elsewhere or that this is a fairly typical pottery profile before the start of the Hertfordshire greyware industry, which dominated the pottery assemblages of the mid/late 12th-14th centuries. Large quantities of Cotswolds-type ware also occurred at Site F, alongside two sherds of Medieval Oxford ware, suggesting strong links to the west. A similar range of fabrics at Aylesbury in Buckinghamshire would be anticipated, given its location between Oxford and Thorn. However, comparisons with assemblages from Aylesbury are inhibited by a lack of recent large scale excavations. The pottery from the 12th to early 13th centuries at George Street, Aylesbury, were dominated by limestone tempered wares, along with sandy wares and small quantities of flint tempered pot (Yeoman 1983, 21), suggesting a similar range of material to Thorn. Thin section analysis of both the flint and limestone tempered wares from George Street was unable match them to known pottery manufactories in Buckinghamshire (Williams 1983). Shell tempered wares are very scarce around Aylesbury but become more common moving into Bedfordshire (e.g. Blinkhorn 2005, 59). Pottery in southern Bedfordshire shows many differences to the central and northern districts, and needs more comprehensive work to identify sources.

The sandy coarsewares are likely to come from a number of sources, including the Thames Valley. These fabrics are fairly amorphous, with few distinguishing features. Mellor (1994) has noted in the past that it is difficult to differentiate the various wares due to the lack of distinguishing features.

Shell-dusted ware is rarely found in the Midlands, but is fairly common in East Anglia, particularly in Suffolk and Essex (e.g. Cotter 2000, 39). A single sherd from a sandy vessel <P418> with a row of fingertip decoration around the shoulder was also noted. Such decoration is typical of early medieval East Anglian pottery (e.g. McCarthy and Brooks 1988, fig 159), and is rare in the Midlands.

The paucity of Hertfordshire greyware is unusual for medieval sites in Bedfordshire, and is a strong indication that activity at the site had largely ceased by the middle of the 12th century. Such pottery is usually very common in the region; around 80% of the pottery from Luton Castle was Hertfordshire greyware.

There are five late medieval and post-medieval sherds of pottery that probably derive from later agriculture.

Table 7.5: Ceramic chronology, occurrence and defining wares, Site Q

Period	Defining wares	Sherds	Weight (g)
Saxo-Norman, 11th C	F200, F201	44	699
early to mid/late 12th C	F302, F330, F360, F361, F362, F363	587	9087
mid/late 12th-14th C	F300	9	169
14th-mid 16th C	F401	2	7
mid 16th-mid 17th C	F425	2	20
mid 17th-18th C	F428	1	6
Total	-	**645**	**9988**

Table 7.6: Pottery occurrence by fabric type as a percentage of weight by period, Site Q

Fabric	Saxo-Norman	early to mid/ late 12th C	mid/late 12th-14th C
F200	96.7%	7.6%	-
F201	3.3%	19.2%	-
F302	-	7.7%	-
F330	-	2.4%	-
F360	-	14.1%	-
F361	-	19.4%	81.7%
F362	-	2.3%	-
F363	-	26.3%	12.4%
F300	-	-	5.9%
F401	-	-	-
F425	-	-	-
F428	-	-	-
Other	-	1.0%	-
Total sherds	**699**	**9087**	**169**

CHRONOLOGY

Each stratified context-specific pottery assemblage is dated based on the range of ware and vessel types present and excludes residual sherds. The chronology, defining wares and the amount of pottery by period is shown in Table 7.5. The occurrence of the major fabric types for each period is shown by weight in Table 7.6.

The data in Table 7.5 indicates that the main period of post-Roman pottery deposition for major fabrics began after the Norman Conquest, with the bulk dating to the early to mid/late 12th century.

SAXO-NORMAN, 11TH CENTURY, 44 SHERDS, 699G, EVE 1.01

The assemblage is dominated by St. Neots ware, which makes up 96.7% of the assemblage by weight (g). Two sherds of Cotswolds-type ware comprise the remainder. The dominance of St. Neots ware is typical in the region (e.g. Blinkhorn 2005). All these sherds are Denham's type T1(2), which is of the 11th-12th centuries (*ibid.*).

All the rim sherds are in St. Neots ware, represented by jars (EVE 0.46) and bowls (EVE 0.55). Many of the bowls have an inturned or flattened profile (Fig 7.55, <P419 – 420>), which is common (*ibid*.). The vessels are all fairly large, all the jars have a rim diameter of 190mm or more, and all the bowls are 280mm or more. These sizes of pot are typical of the late Saxo-Norman T1(2) St. Neots ware tradition, with earlier vessels generally being much smaller. All the St. Neots ware rims from the early to mid/late 12th century are also of a similar size range. One of the St. Neots ware jars from context Q[501] had a thumb impressed piecrust rim (Fig 7.55, <P421>), which is a typical period form. Thus, other than the two sherds of residual early and middle Saxon pottery, there is no post-Roman pottery dating before the 11th century. A lot of the St. Neots ware is in good condition, and the sherds unusually large and well-preserved, suggesting that this is primary deposition. St. Neots ware usually occurs in a highly fragmented state as the vessels are mainly thin-walled and fired at relatively low temperatures.

Nine contexts were dated to this phase, with two of them producing a single small sherd. The rest of the assemblage came from pits, ditches and postholes, and indicates that there was Saxo-Norman settlement nearby.

EARLY TO MID 12TH CENTURY, 587 SHERDS, 9,087G, EVE 5.49

This represents by far the biggest assemblage and is dominated by a range of sandy coarsewares, which make up nearly 60% of the pottery by weight (g), along with Oolitic wares at 19.2%. The rest of the assemblage is largely made up of St. Neots ware (7.6%), Coarse sandy and Mixed inclusion wares (7.7%), Fine sand and flint wares (2.3%) and a small group of Shelly coarsewares (2.4%). The sherds of early/middle Saxon Ipswich ware, two sherds of Stamford ware and five sherds of Light orange sandy ware were residual in these contexts. The Stamford ware sherds have a yellow glaze and are in a fairly fine white fabric, traits typical of the 11th and 12th-century products of the tradition.

The rim assemblage comprises entirely jars (EVE 4.85) and bowls (EVE 0.64). Six jar rims (EVE 0.37) had thumb impressed piecrust rims, and a further three (EVE 0.23) were from cylindrical jars, a specialist cooking vessel which was solely produced by the Shelly coarseware industry of the south-east Midlands (e.g. Blinkhorn 2010, 287). One of the cylindrical jars also had a piecrust rim. The range of rims, and their style, is typical of early medieval assemblages in the region (*ibid*.).

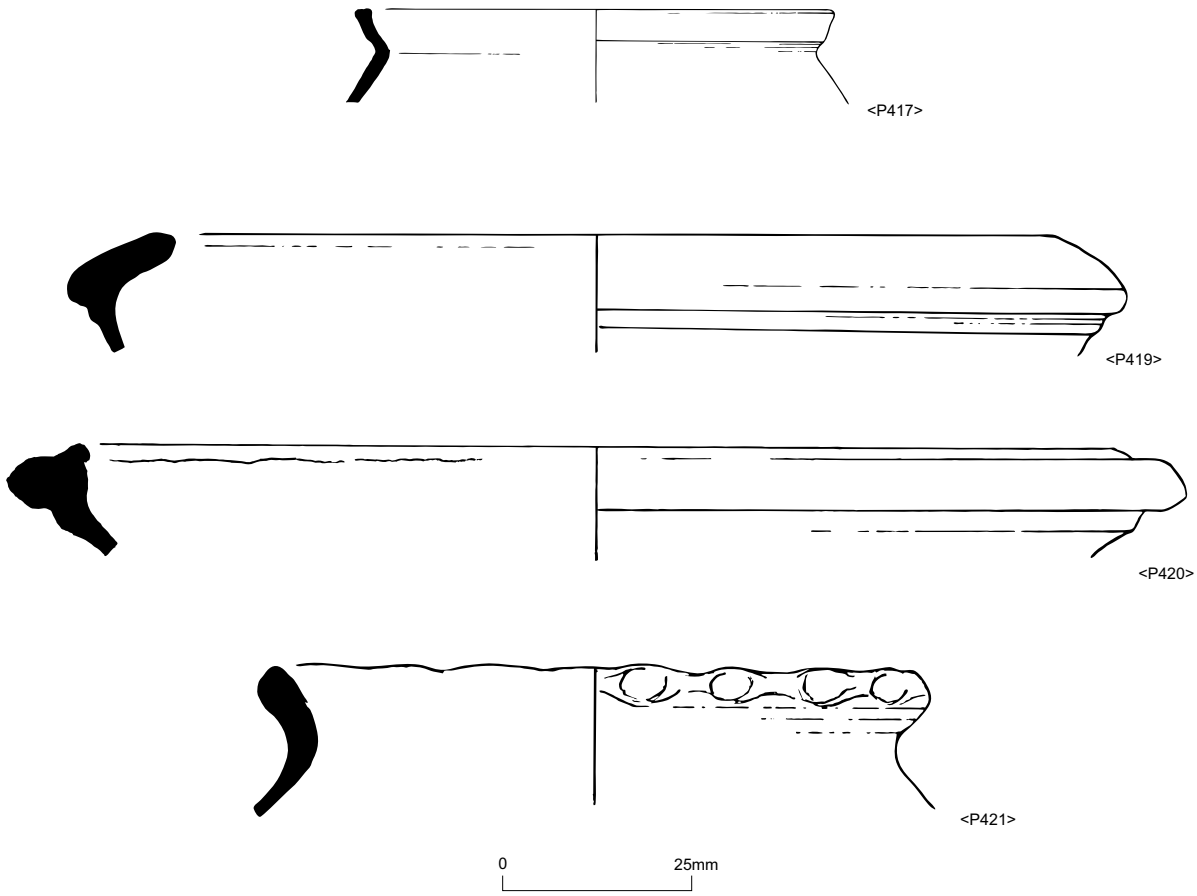


Fig 7.55 Saxo-Norman pottery, Site Q

One of the Cotswolds-type jars (Fig 7.56, <P422>) is both large and very typical of the tradition, having a slightly closed form and a flattened club rim. Others from Thorn have more upright and everted forms, some with fingertip decoration (Fig 7.56, <P423>). Both types are typical with parallels in Oxfordshire and beyond (e.g. Mellor 1994, fig 10, 3; fig 11, 1). A single sherd has a post-firing drilled hole, and may have been re-used as a spindle whorl.

Most of the bowls have fairly simple forms, but an extremely unusual vessel in Coarse sandy ware is from fill Q[643] along ditch Q[746]. It was not possible to reconstruct the full profile, but the vessel appears to be relatively narrow and deep (Fig 7.56, <P425>). The thumb-frilled base is more typical of jugs and it has a rim with an upright, pierced blind lug (Fig 7.56, <P424>). The shape is more reminiscent of a bucket than a bowl. Unusually, for bowl forms, it is decorated with incised cordons and thumbed applied strips, and there is slashed decoration on the lug and the area of the rim to either side. The vessel has some similarities to curfews (fire-covers), although such vessels were rarely, if ever, lugged. There is no trace of internal scorching or burning which typifies such vessels. There are some signs of burning on the top of the lug and part of the rim, but this seems to have occurred post-breakage. The vessel has no obvious parallels, and probably had a specialist function.

A fragment <P426> of a possible curfew comes from fill Q[694] along ditch Q[746]. The sherd has a heavily burnt and degraded inner surface, which is typical of such vessels. Jugs were entirely absent, with no rims or handles noted. The sherds of glazed Stamford ware may be from pitchers, but jars and bowls were also glazed by the Stamford potters at that time.

MID/LATE 12TH CENTURY, NINE SHERDS, 169G, EVE 0.15

All the pottery of this date is from ditch Q[657]; they are all plain body sherds except for a single jar rim in Coarse sandy ware.

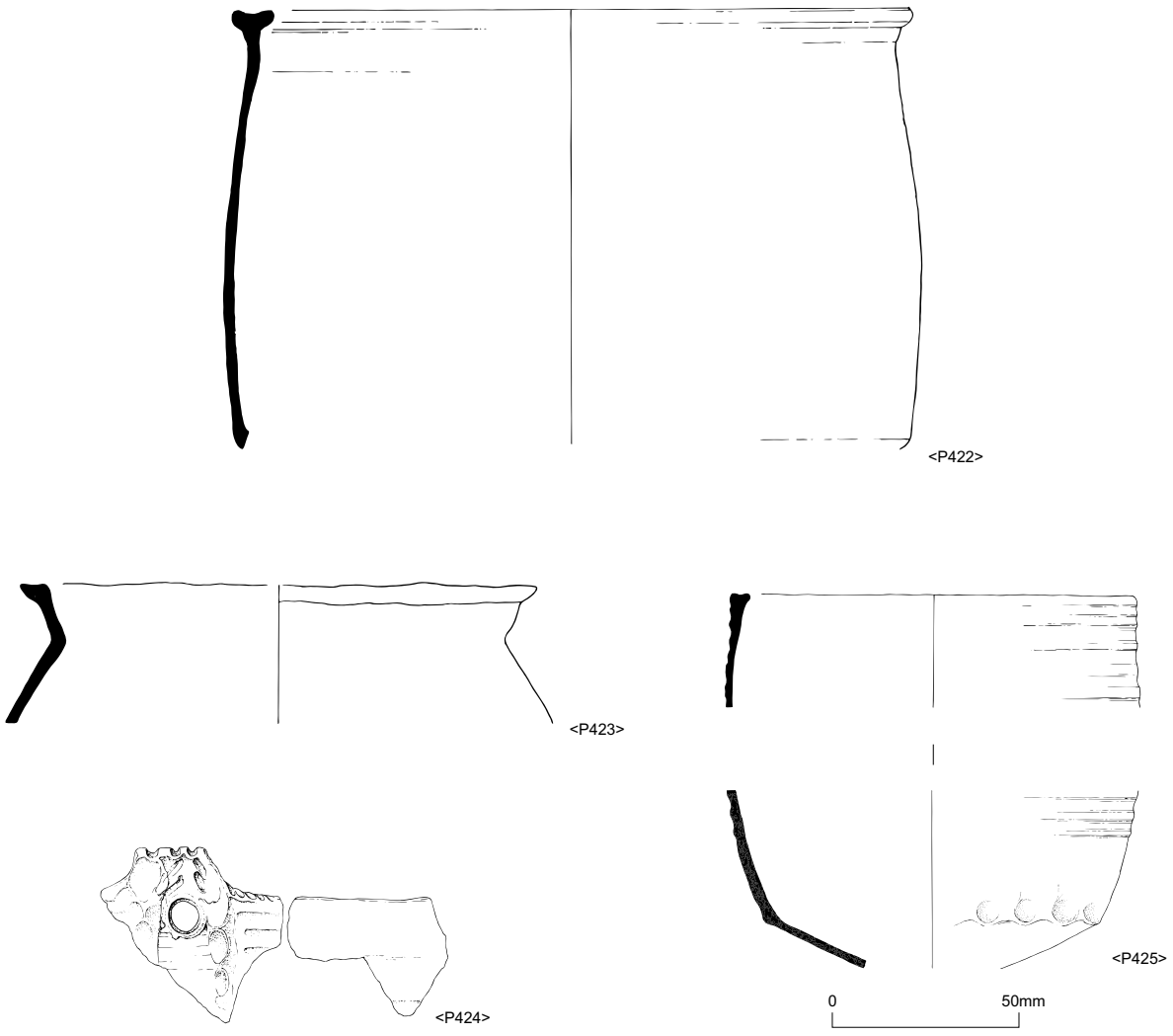


Fig 7.56 Early to mid 12th-century pottery from Site Q

SITE G

The pottery assemblage comprises 98 sherds with a total weight of 1096g. It was all of earlier medieval date. It was recorded using the conventions of the Bedfordshire County Archaeology Service type-series (e.g. Baker and Hassall 1979), as follows:

B07: Medieval shelly ware, AD1100–1400, four sherds, 72g

C03A: Fine sand and flint, 12th–13th centuries, one sherd, 11g

C17: Hedingham-type ware, 13th–15th centuries, one sherd, 2g

C59a: Coarse sandy ware, 12th–13th centuries, 25 sherds, 252g

C59b: Sandy ware, 12th–13th centuries, 67 sherds, 959g

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 7.7. Each date should be regarded as a *terminus post quem*. The range of fabric types is typical of sites in the region, and broadly reflects those from both Sites F and Q. Most of the assemblage consisted of unglazed body sherds from jars, other than the single sherd of Hedingham Ware, which is from a glazed jug and is a common product of the tradition.

Just two rim sherds were noted: one jar and the other a full profile of a possible curfew. The vessel is of a slightly unusual form, having what appears to be an upright lug on the rim, with a pre-firing hole underneath it. The pot is scorched on the inside and on top of the lug. Curfews with upright lugs are very unusual, but a very similar vessel was noted amongst the pottery from Site Q.

SITE F

The pottery assemblage comprises 1,884 sherds (25,109g). The estimated vessel equivalent (EVE), by summation of surviving rim sherd circumference was 13.34. All the wares are well-known in the region. They were recorded using the conventions of the Bedfordshire County Archaeology Service type-series (Baker and Hassall 1979). Alphanumeric codes prefixed F are used in the database.

F001: A01: E/MS chaff-tempered, 5th-9th centuries, 11 sherds, 54g, EVE 0

F002: A16: Mixed coarse quartz, 5th-9th centuries, two sherds, 63g, EVE 0

F003: A18: Fine quartz, 5th-9th centuries, 25 sherds, 251g, EVE 0.21

F004: A24: Oolitic limestone, 5th-9th centuries, one sherd, 11g, EVE 0

F097: A11: Maxey ware, mid 7th-mid 9th centuries, four sherds, 57g, EVE 0.18

F100: B01: T1 (1) type St. Neots ware, *c.*AD900–1100, five sherds, 31g, EVE 0

F102: C08: Thetford–type ware, 10th-12th centuries, three sherds, 116g, EVE 0.37

F200: B01A: T1 (2) type St. Neots ware, AD1000–1200, 205 sherds, 1,742g, EVE 2.24

Table 7.7: Pottery occurrence by number and weight (in g) of sherds per context by fabric type, Site G

Fabric	**Fabric B07**		**Fabric C03A**		**Fabric C59a**		**Fabric C59b**		**Fabric C17**	
Context	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)	Number	Weight (g)
G[1156]	-	-	-	-	-	-	-	-	1	2
G[1171]	-	-	-	-	-	-	3	20	-	-
G[1172]	1	13	-	-	3	61	-	-	-	-
G[1250]	-	-	1	11	-	-	-	-	-	-
G[1306]	-	-	-	-	1	15	25	165	-	-
G[1324]	-	-	-	-	-	-	7	46	-	-
G[1327]	-	-		-	-	-	5	80	-	-
G[1330]	-	-	-	-	5	81	6	84	-	-
G[1339]	-	-	-	-	-	-	1	25	-	-
G[1348]	-	-	-	-	-	-	11	98	-	-
G[1351]	3	59	-	-	16	95	9	441	-	-
Total	**4**	**72**	**1**	**11**	**25**	**252**	**67**	**959**	**1**	**2**

F205: C12: Stamford ware, AD900–1200, 12 sherds, 164g, EVE 0

F300: C60: Hertfordshire greyware, mid 12th-14th centuries. 274 sherds, 2,912g, EVE 1.66

F302: C67: Mixed inclusions, 12th-14th centuries, 120 sherds, 1,742g, EVE 0.82

F303: C57: London ware, 12th-14th centuries, four sherds, 31g, EVE 0

F324: C09: Brill/Boarstall ware, 13th-15th centuries, 11 sherds, 134g, EVE 0.12

F325: C58: Hertfordshire glazed ware, mid 14th-15th centuries, 37 sherds, 539g, EVE 0.39

F330: B07: Medieval shelly ware, AD1100–1400, 112 sherds, 1,435g, EVE 0.39

F356: C16: Surrey whiteware, early/mid 13th-16th centuries, one sherd, 5g, EVE 0

F360: C03: Fine sandy reduced ware, 12th-13th centuries, 112 sherds, 1,399g, EVE 0.98

F361: C59a: Coarse sandy ware, 12th-13th centuries, 62 sherds, 946g, EVE 0.78

F362: C03A: Fine sand and flint, 12th-13th centuries, two sherds, 20g, EVE 0

F363: C59b: Sandy ware, 12th-13th centuries, 590 sherds, 9,363g, EVE 4.05

F365: E01: L. med. reduced ware, mid 14th-16th centuries, 104 sherds, 1,123g, EVE 0.41

F401: E02: L. med. oxidized ware, mid 14th-16th centuries, 61 sherds, 378g, EVE 0

F402: E03: L. med. smooth ware, mid 14th-15th centuries, one sherd, 6g, EVE 0

F404: P12: Cistercian ware, *c.*AD1470-1550, one sherd, 2g, EVE 0

F425: P01: Glazed red earthenware, 16th century, seven sherds, 28g

F428: P30: Staffordshire slipware, mid 17th-18th centuries, one sherd, 14g

F1000: P56: Mass-produced white earthenware, 19th-20th centuries, four sherds, 44g

The following, not included in the Bedfordshire type-series, were also noted:

F201: Cotswolds-type ware, 11th-13th centuries (Mellor 1994), 110 sherds, 1,416g, EVE 0.68

F304: Medieval Oxford ware, late 11th-13th centuries (*ibid*.), two sherds, 23g, EVE 0.06

The range of pottery indicates activity from the early Saxon period to the mid/late 14th century and is fairly typical for the region, other than the unusually large quantities of Cotswolds-type ware (Mellor 1994) and the small group of Medieval Oxford ware (*ibid*.). The sherds classified Fine sand and flint are both Kennett Valley ware (L Mepham pers comm). All these wares are common in the city of Oxford (Mellor 1994). The range of regionally imported pottery is similar to that from Site Q, and shows that there was substantial contact with markets to the west. A few sherds with mixed inclusions are decorated with scratch-marking, suggesting that they come from the Thames Valley region to the south, where such decoration is fairly well-known. This fabric has similarities with some of the wares in that area, such as pottery from the M40 construction (Hinton 1973) and products of the Camley Gardens kilns near Maidenhead (Pike 1965). Mixed inclusion wares are reasonably common near Luton (e.g. Turner and Wardill 2011). The small quantities of London ware and Surrey whiteware show that southern trade was not substantial.

The main assemblages are dominated by unglazed wares. Glazed jugs, which were a staple of the 13th-14th centuries, are apparently very under-represented. This may simply be a reflection of the pottery supply. The nearest known pottery production centres at Site M1B and M1C (see Blinkhorn this volume, Chapter 8), Hitchin (Turner-Rugg 1993, 33) and Great Missenden (Ashworth 1983) all produced mainly unglazed wares. The nearest sources of glazed wares appear were Brill (Mellor 1994), the St Albans region (Jenner and Vince 1983) and Greater London (Pearce and Vince 1988; Pearce *et al.* 1985). The main products of these manufactories in the 13th-14th centuries were jugs, which were rare at Site F. Presumably either other materials were used for liquid containers, or jugs were not required for the activities undertaken on the site.

Chronology

Each stratified context-specific pottery assemblage is dated based on the range of ware and vessel types present and excludes residual sherds. The chronology, defining wares and the amount of pottery by period is shown in Table 7.8. The occurrence of the major fabric types for each period is shown by weight in Table 7.9.

Aside from a small amount of early/middle Saxon activity, the data in Table 7.8 suggests that post-Roman pottery deposition began after the Norman Conquest and continued until the mid 14th to mid 15th centuries. The range of vessel types suggests occupation had ceased by the beginning of the 15th century, if not earlier. Around

Table 7.8: Ceramic chronology, occurrence and defining wares, Site F

Period	Defining wares	Sherds	Weight (g)
Early/mid Saxon, 5th-9th C	F1, F2, F3, F4	22	228
Mid/late Saxon, 7th-9th C	F97	0	0
Late Saxon, 10th C	F100, F102, F205	2	24
Saxo-Norman, 11th C	F200, F201	75	1124
Early/mid 12th C	F302. F330, F360, F362, F363	710	8166
Mid 12th-mid 14th C	F300	671	10776
Early 13th-mid 14th C	F324, F356	81	923
Mid 14th-mid/late 15th C	F325, F365, F401	256	3064
Mid/late 15th-mid 16th C	F404	0	0
Mid 16th-17th C	F425	54	733
19th-20th C	F1000	13	71
Total sherds	-	**1884**	**25109**

one third of the early/middle Saxon assemblage was residual due to considerable disturbance of strata after the mid 12th century. The paucity of glazed pottery and other typological information suggests strongly that a lot of ditches were filled after the mid 12th century and hence the presence of two chronologically overlapping ceramic phases.

The general pattern of data for major fabrics in Table 7.9 is fairly typical of sites in the region, with the Saxo-Norman period dominated by limestone tempered wares before a range of sandy wares replaced them. Hertfordshire greyware became an important fabric from the mid 12th century onwards, with glazed wares rare until the 13th century. A range of new wares, including glazed examples, appear after the mid 14th century. Most of the post-Conquest pottery and later is of relatively local manufacture, although the source of the earliest medieval unglazed sandy wares is presently unknown.

Residual sherds are few prior to the mid 12th century, suggesting there was very little disturbance of earlier strata, but it is much greater across the mid 12th to 14th centuries (23.5%) during which time there was much filling and recutting of boundary ditches, and levelling up of uneven ground. The much larger mid 14th to mid/late 15th century group also has a lot of residual material, making up 41.4% (by weight) of the assemblage, and suggesting a period of site clearance and consolidation consistent with the infilling of the pond and the top of the sinkhole. Nearly 90% of the mid 16th to 17th-century pottery is residual, mainly because a post-medieval trackway cut directly through the occupation site.

Table 7.9: Pottery occurrence by fabric type as a percentage of weight by period, Site F

Fabric	All Saxon	Saxo-Norman	early/mid 12th C	mid 12th-mid 14th C	early 13th-mid 14th C	mid 14th-mid/ late 15th C	mid 16th-17th C
All Saxon	100%	2.7%	0.7%	-	6.4%	0.1%	0.1%
F200	-	67.4%	9.4%	0.7%	10.9%	1.1%	0.4%
F201	-	20.6%	12.7%	0.5%	6.2%	0.7%	1.5%
F205	-	7.4%	0.9%	0.1%	-	-	-
F302	-	-	3.2%	21.7%	7.9%	1.9%	3.4%
F330	-	-	11.0%	3.9%	4.9%	2.1%	-
F360	-	-	7.2%	5.5%	3.0%	4.2%	7.4%
F361	-	-	2.9%	4.0%	-	4.6%	18.7%
F363	-	-	49.1%	45.1%	19.1%	3.2%	29.2%
F300	-	-	-	17.3%	28.3%	23.5%	8.5%
F324	-	-	-	-	13.1%	-	0.5%
F325	-	-	-	-	-	15.8%	7.4%
F365	-	-	-	-	-	33.1%	-
F401	-	-	-	-	-	9.4%	11.5%
F425	-	-	-	-	-	-	10.6%
Other	-	1.9%	2.9%	1.2%	0.2%	0.3%	0.8%
Total	**228**	**1,124**	**8,166**	**10,776**	**923**	**3,064**	**733**

Shaded cells denote residual material

VESSEL CONSUMPTION

The vessel consumption for each period, in EVE, is shown in Table 7.10. The pattern is fairly typical for the Saxo-Norman and late medieval periods, but in the mid 12th to mid 14th centuries in between, jugs are under-represented. This has been observed elsewhere in the region at Tempsford, where jugs comprised over 23% of the rim sherds from the late 12th to early/mid 13th centuries but only 8.4% of the pottery from the early/mid 13th to late 14th centuries (Blinkhorn 2005.). Tempsford also shows differences in the earlier medieval pottery supply, with shelly wares making up the bulk of the early medieval pottery from the site. Jugs were a fairly common product of that tradition in the 12th century, but largely ceased to be made after the start of production of glazed wares from other centres in the early 13th century. It is also worthy of note that developed late medieval vessel forms associated with the storage, preparation, transportation and consumption of food and drink are entirely absent. Given that much of the pottery deposited in the late medieval period was residual, it seems likely that the site had largely been abandoned by that time.

EARLY/MIDDLE SAXON, 5TH-9TH CENTURIES, 22 SHERDS, 228G, EVE 0.21

Six contexts produced pottery of this period, with just over 60% (by weight) of the hand-built pottery being stratified. Four sherds of Maxey ware, the only pottery which is definitely middle Saxon, were all redeposited in later features.

Only two features produced more than a single sherd; pit F[893] and charnel burial pit F[906]. Both of these features were at the northern end of the site and contained small single sherds from different vessels, which are the product of secondary deposition. The material from pit F[893] included two small rim sherds (Fig 7.57, <P427>, <P428>). One small sherd <P429> (3g) from charnel burial pit F[906] had traces of linear decoration, indicating that it is likely to be 5th-6th century in date.

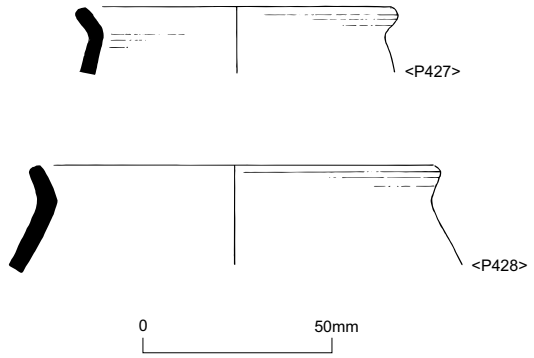


Fig 7.57 Early/middle Saxon pottery, Site F

The dating of early Saxon hand-built pottery is mainly reliant on the presence of decorated sherds, which are largely 5th-6th century in date, as such wares generally ceased to be decorated in the 7th century (Myres 1977, 1). However, it cannot be said with certainty that an assemblage which produced only plain sherds is of 7th-century date. Usually decorated hand-built pottery comprises 5% or less of domestic assemblages, as was the case at Mucking, Essex (Hamerow 1993, 51). Thus, fairly small assemblages of plain pottery can only be assigned a broad period date.

LATE SAXON, 10TH CENTURY, TWO SHERDS, 24G, EVE 0

Pits F[267] and F[1353] each produced a single sherd of T1 (1) type St. Neots ware, *c.*AD900–1100.

SAXO-NORMAN, 11TH CENTURY, 75 SHERDS, 1,124G, EVE 0.82

The pottery groups of this date are all less than eight sherds, mainly less than three or four. The pottery is fairly typical, dominated by type T1(2) St. Neots ware (67.4% by weight) along with a smaller quantity of Cotswolds-type ware (20.6%) and three sherds of Stamford ware (7.4%), including a large bodysherd (74g) from a glazed pitcher or jar.

There are eight rim sherds, six from jars (EVE 0.56) and two from bowls (EVE 0. 26). All of these were in St. Neots ware, apart from a single Cotswolds-type jar.

Table 7.10: Percentage vessel consumption in EVE by period, Site F

Vessel	Saxo-Norman	early/mid 12th C	mid 12th-mid 14th C	early 13th-mid 14th C	mid 14th-mid/late 15th C
Jars	68.3%	86.5%	68.3%	88.3%	54.4%
Bowls	31.7%	10.3%	18.0%	3.9%	14.6%
Jugs	-	3.2%	5.1%	7.8%	31.0%
Curfew	-	-	8.6%	-	-
EVE	**0.82**	**4.75**	**4.44**	**1.02**	**1.58**

Key: Estimated Vessel Equivalent = EVE

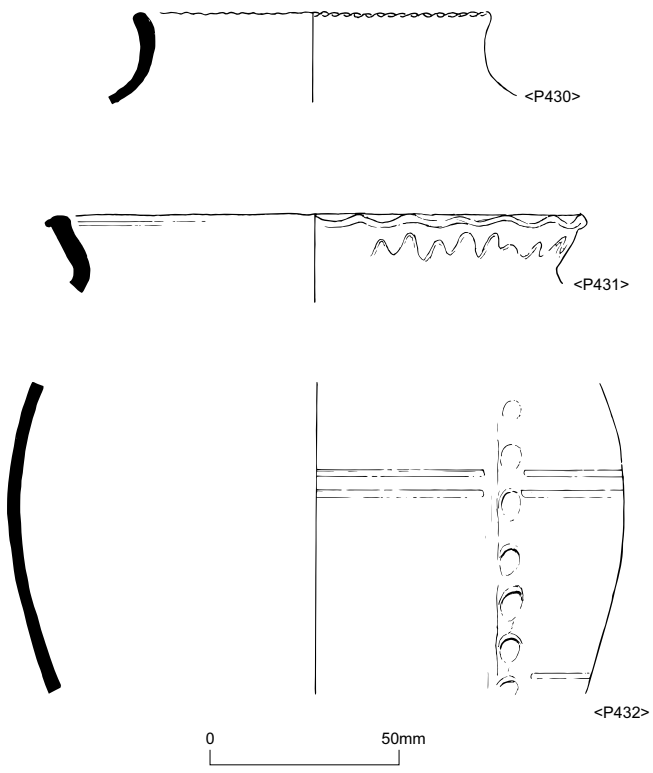


Fig 7.58 Early to mid 12th-century pottery, Site F

The bowls have inturned profiles and are typical of the tradition (Denham 1985a, b). The jar rims include two from cylindrical jars, which is a fairly common regional form of cooking vessel (Blinkhorn 2010).

EARLY/MID 12TH CENTURY, 710 SHERDS, 8,166G, EVE 4.75

This assemblage is dominated by various sandy wares, along with smaller quantities of limestone tempered wares. The only glazed sherds are in Stamford ware (0.9%).

There are 66 rim sherds, of which 55 are from jars (EVE 4.11), nine from bowls (EVE 0.49), and two from jugs/pitchers (EVE 0.15). There are eight piecrust jar rims with thumb impressions, a typical early medieval form (Fig 7.58, <P430>). One vessel had additional incised decoration on the rim face (Fig 7.58, <P431>). Seven rims are from cylindrical jars.

The range of jar rim diameters in the early/mid 12th-century fabrics is typical, with none greater than 340mm (Fig 7.59). The mean rim diameter for jars is 240mm. A few body sherds are from large storage jars (Fig 7.58, <P432>), but the presence of small numbers of such vessels is not untypical.

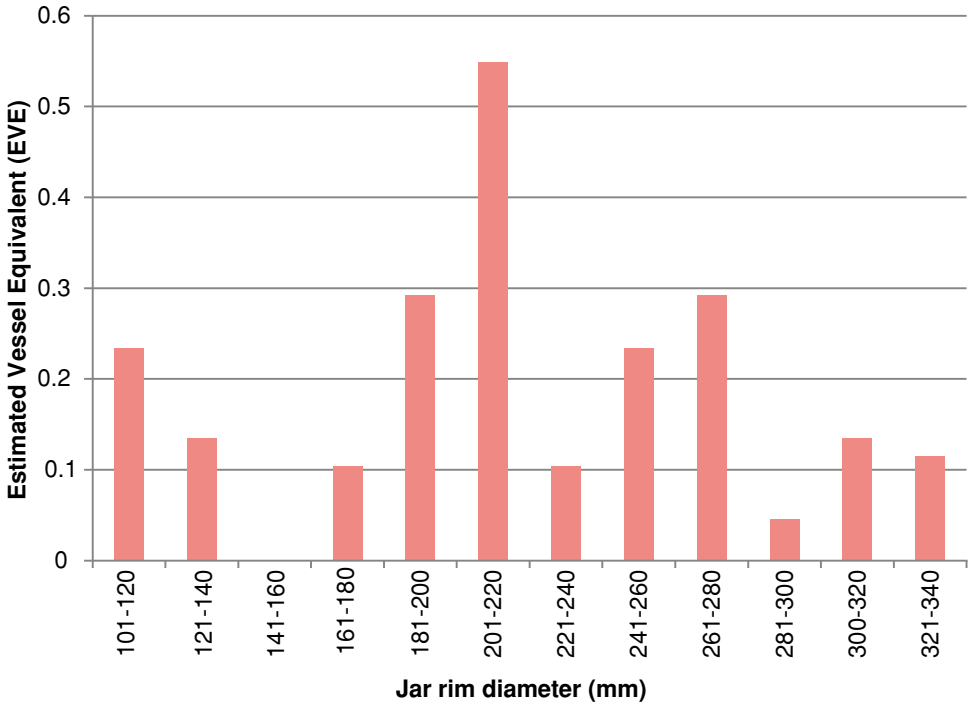


Fig 7.59 Jar rim diameters, fabrics of the early/mid 12th-century by EVE, Site F

The assemblage is otherwise fairly unremarkable. Two small body sherds have incised decoration, one with a lattice and the other with scoring. Two larger sherds, probably from storage jars or jugs, have applied thumbed strips.

MID 12TH TO MID 14TH CENTURIES, 671 SHERDS, 10,776G, EVE 4.44

The pottery is dominated by sandy wares, with the addition of Hertfordshire greyware. Limestone tempered wares are much less well represented. Three sherds of London ware are the only glazed wares. All the sherds had a plain green glaze and no other decoration, other than a small sherd with vertical white slip stripes, a common decorative scheme (Pearce *et al.* 1985, fig 9). Residual sherds were increased as a result of filling and recutting boundary ditches, and levelling up ground.

There are 58 rim sherds, of which 41 are from jars (EVE 3.03), nine from bowls (EVE 0.80), two from jugs (EVE 0.23) and six non-joining sherds from a possible curfew (EVE 0.38). Two thumbed piecrust rims are from jars and two more from bowls, with one of the latter surviving to a full profile (Fig 7.60, <P433>).

The bulk of the context-specific assemblages were fairly small. The exception to this was a large dump of pottery in pit F[1140]. Two fills produced 210 sherds (5,506g), representing just over 51% of the pottery by weight for this period. The middle fill included many sizeable fragments of large storage vessels, a form which was not present in the upper fill, where vessels were generally smaller (Fig 7.60, <P434>). A fairly large number of joins were noted and it appeared to be a primary dump as backfill, with the lack of complete vessels suggesting a domestic midden source. The quantity and large size of pots indicated a specialised use. There were no cross-fits with the upper fill. The range of sizes of jars is larger than those of the early/mid 12th century (Figs 7.59 and 7.61). The mean

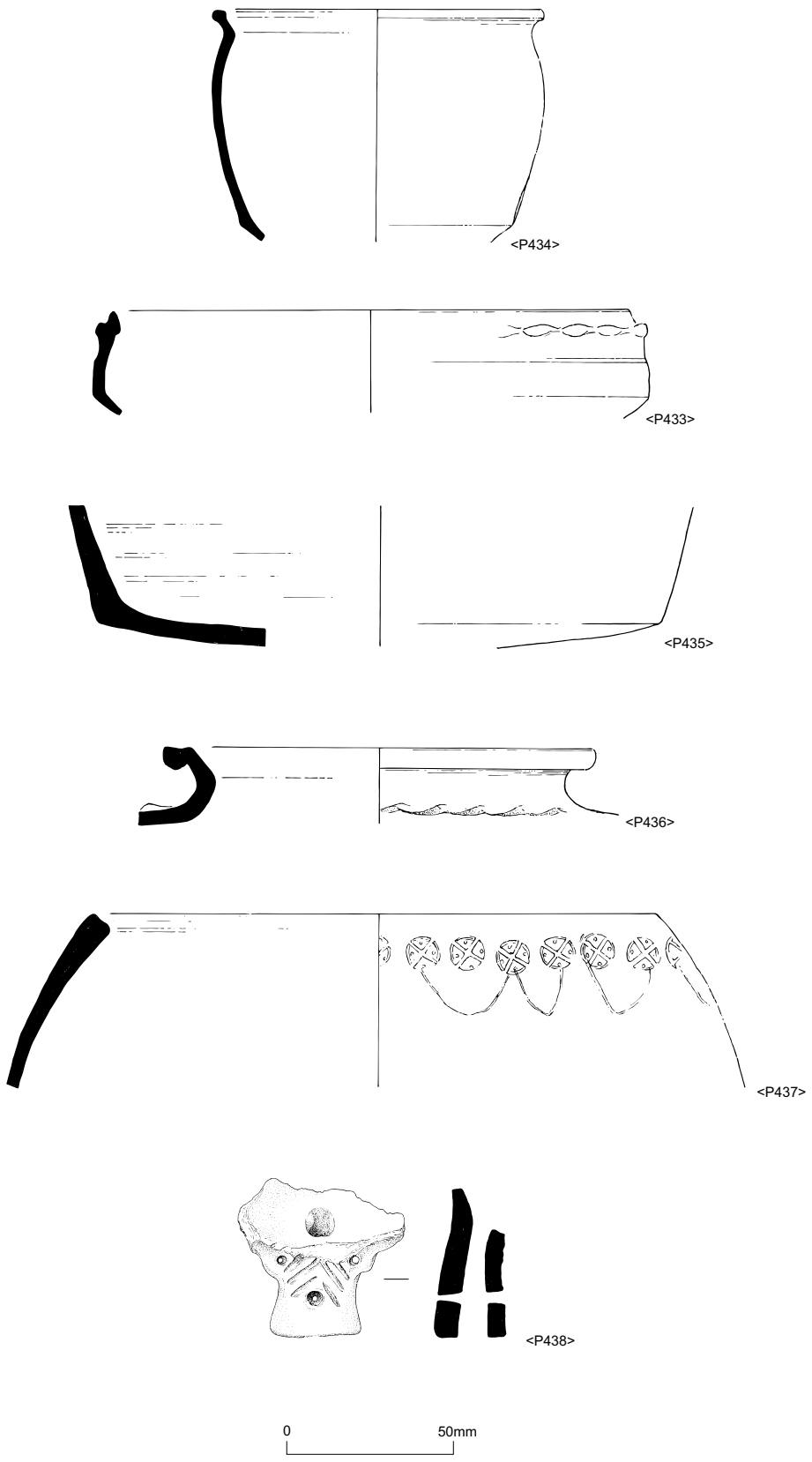


Fig 7.60 Pottery of the mid 12th to mid 14th centuries, Site F

rim diameter for these pots is 273.5mm, some 33mm larger than earlier pots. Vessels with a rim diameter of less than 160mm are absent, and the largest vessel, represented by the storage jar rim sherds, is 420mm, which is much larger than any pot in the preceding period. No more than three storage vessels were present, mainly represented by rim and base sherds. The rims are quite large, and the same comments apply to two of the bases, which have diameters of 400mm and 480mm respectively (Fig 7.60, <P435>). The vessels with sparse calcareous inclusions are abraded on the inner surface and/or suffered leaching. This is typical of vessels used for caustic liquids such as urine or alcohol (Perry 2011). A fragment of a large Hertfordshire greyware jar (Fig 7.60, <P436>), which was redeposited in a late medieval context, had a similar pattern of degradation on the inside. This sherd (Fig 7.60, <P436>) has applied strip decoration around the shoulder, and is very similar to a number of examples from London, largely early/mid 13th century in date (Blackmore and Pearce 2010, 148).

The upper and basal fills of pit F[1140] produced several non-joining sherds from a possible curfew (fire-cover). The vessel was fairly heavily burnt and sooted on the inner surface and has a handle scar with the remains of a pierced hole, decorated with a row of cross-stamps along the rim (Fig 7.60, <P437>). Internal sooting and handles with air-holes at the terminal are common features of curfews (e.g. McCarthy and Brooks 1988, fig 172, 1017). This vessel is unusual in that the handle terminal is just below the rim, whereas on most curfews the handles are in the centre of the dome (*ibid.*). Decorative stamping is unusual in the region, and although curfews are often relatively highly decorated with applied and/or incised decoration, stamped examples are rare. It is unfortunate that insufficient of the vessel remains to allow precise identification. There is little doubt that interior of the vessel came in contact with heat, but it could also be interpreted as a fish-smoker or a fire-pot, a vessel used for transporting hot coals for starting fires. These are far less common than curfews, and rarely found.

Another unusual vessel came from ditch F[721], which is highly decorated spouted or socketed bowl (Fig 7.60, <P438>). The socket has pre-firing holes in the top and bottom of the spout, meaning it could not be used for pouring. These holes would allow a wooden handle to have been attached securely into the socket to allow the vessel to have functioned as a skillet or pan. The vessel is fairly heavily sooted on the outer surface, suggesting it was used this way. Even more unusually, there are two small pierced lugs at the base of the spout where it joins the body. These could have been used to suspend the vessel from a hook or similar when it was not in use, to do so over a fire would have required lugs to be placed symmetrically on the opposite side, and would have been unique. A small residual fragment of a heavy tubular spout, probably from a similar vessel and in a similar fabric, was found in a post-medieval context.

Other than the vessels noted above, decorated sherds were rare. There is a single sherd with scratch-marking and seven sherds with applied strip decoration.

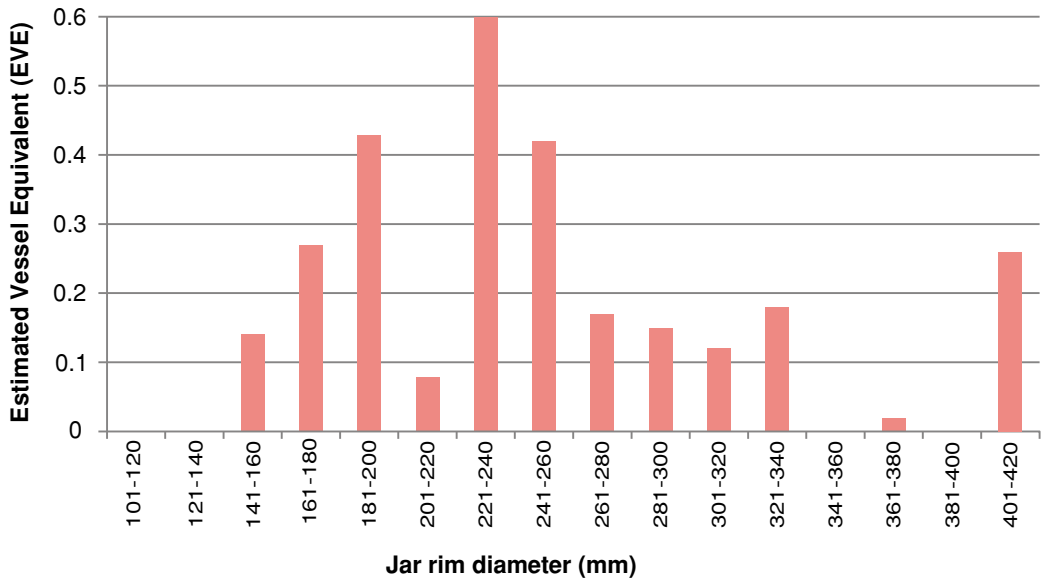


Fig 7.61 Jar rim diameters, fabrics of the mid 12th to mid 14th centuries by EVE, Site F

EARLY 13TH TO MID 14TH CENTURIES, 81 SHERDS, 923G, EVE 1.02

This relatively small assemblage is due to the infrequent occurrence of Brill/Boarstall ware and Surrey Whiteware (12 sherds total), and their distant source. At Tempsford, despite being a manorial settlement, glazed pottery was not common. The contemporary period at that site produced 3,277 sherds of pottery, of which only 97 sherds were Brill/Boarstall ware (Blinkhorn 2005, 59). Other glazed wares, such as Potterspury ware, Grimston ware, and Hedingham ware, totalled less than 200 sherds.

Typological evidence from unglazed wares is limited by their conservative nature. Other than Hertfordshire greyware jugs, which often have handle decoration, few can be closely dated. Two handles were found, presumably due to the relatively scarcity of jugs. A strap handle with thumb impressions and stabbed decoration (Fig 7.62, <P439>) is of a type well attested in London, where variations occur from *c.*AD1230 into the early 14th century (Blackmore and Pearce 2010, 174). The other handle is a double thumbed rod with pin stabbing (*ibid.*).

The assemblage is dominated by unglazed sandy wares. Brill/Boarstall wares make up just over 13% of the assemblage by weight. Over 23% of the pottery is residual, perhaps as a result of clearance and levelling.

Five rim sherds were present, one of which was residual. The contemporary material is from two jars, a bowl and a jug. No decorated sherds were noted, other than the two handles.

MID 14TH TO MID/LATE 15TH CENTURIES, 256 SHERDS, 3,064G, EVE 1.58

The pottery from this phase is typical of late medieval sites in the region, being dominated by late medieval reduced and oxidized wares (42.5% by weight), along with a fairly large assemblage of Hertfordshire-type glazed ware (15.8%), largely from jugs and bowls.

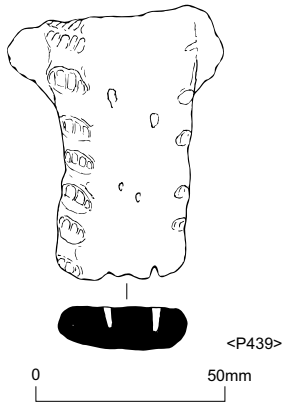


Fig 7.62 Strap handle with thumb impressions and stabbed decoration, Site F

However, over 40% of the pottery is residual from site clearance and consolidation consistent with the infilling of the pond and the top of the sinkhole. The only other pottery form this phase which may be contemporary is a single small (5g) sherd of Surrey whiteware.

The stratified rim sherds are all from jars (EVE 0.08), bowls (EVE 0.23) and jugs (EVE 0.39). The proportion of these vessels is fairly typical of late medieval sites but the complete lack of developed vessel forms for storage, preparation, transportation and consumption of food and drink, indicate abandonment. No contemporary decorated sherds were noted, although this is not unusual.

MID 16TH TO EARLY 17TH CENTURIES, 54 SHERDS, 733G

Nearly 90% of the pottery from this phase comprises residual medieval and earlier pottery. The small amount of contemporary pottery occurred from pits aligned along the east side of a post-medieval trackway, which is mapped by the First Edition Ordnance Survey, 1889.

CATALOGUE OF ILLUSTRATED SAXON AND MEDIEVAL POTTERY (FIGS 7.55-57, 7.60 AND 7.62)

<P417> Rim sherd from jar, fairly heavy sooting on the outer rim. Coarse sandy ware, light grey fabric with orange-brown surfaces. Q[594], fill of ditch Q[746]

<P419> Inturned-rim bowl, some sooting on the outer surface below the carination. T1 (2) type St. Neots ware, dark grey fabric with paler surfaces. Q[463], fill of ditch Q[81]

<P420> Bowl rim. T1 (2) type St. Neots ware, dark grey fabric with brown surfaces. Q[577], fill of pit Q[578]

<P421> Piecrust jar rim. T1 (2) type St. Neots ware, uniform pale grey fabric. Q[501], fill of pit Q[500]

<P422> Full profile of jar, limescale on the lower inner surface. Cotswolds-type ware, grey fabric with brown surfaces. Q[63], fill of pit Q[64]

<P423> Jar rim. Cotswolds-type ware, grey fabric with buff surfaces. Q[594], fill of ditch Q[746]

<P424> An upright, pierced blind lug rim from a ?bowl, some scorching. Fine sand and flint ware, dark grey fabric with pale brown surfaces. Q[643], fill of ditch Q[746]

<P425> Non-joining rim and base from a lugged ?bowl, some scorching on the lug and rim. Fine sand and flint ware, dark grey fabric with pale brown surfaces. Q[643], fill of ditch Q[746]

<P427> Rim sherd from a small jar. Fine quartz, uniform black fabric. F[890] fill of pit F[893]

<P428> Rim sherd from a jar. Fine quartz, uniform black fabric. F[890] fill of pit F[893]

<P430> Piecrust jar rim. Sandy ware, uniform grey fabric, orange patches and light sooting on outer surface. F[1268] fill of pit F[1271]

<P431> Piecrust jar rim with incised wavy line on the outer face. Sandy ware, grey fabric with red-brown surfaces. F[1268] fill of pit F[1271]

<P432> Large bodysherd from a storage jar with incised cordons and a thumbed applied strip. Sandy ware, grey fabric with red-brown surfaces. F[1057] fill of pit F[1058]

<P433> Full profile of a shallow bowl. Sandy ware, grey fabric with brown surfaces. F[1082] fill of pit F[1083]

<P434> Full profile of small jar. Hertfordshire greyware, uniform dark grey fabric. F[1137] fill of pit F[1140]

<P435> Base from storage jar. Mixed inclusions, grey fabric with orange patches on the outer surface. F[1138] fill of pit F[1140]

<P436> Rim sherd from jar. Hertfordshire greyware, uniform dark grey fabric, degraded inner surface. F[327] fill of pit F[328]

<P437> Six non-joining sherds from a possible curfew. Sandy ware, dark grey fabric with a light brown outer surface, burning and sooting on the inner surface and rim-top. F[1137/9] fills of pit F[1140]

<P438> Rim sherd from a socketed bowl. Coarse sandy ware, grey fabric with orange-brown surfaces, outer surface below the rim and bottom of socket fairly evenly sooted. F[723] fill of ditch F[721]

<P439> Jug handle. Hertfordshire greyware, uniform grey fabric. Rubble layer F[312]

REGISTERED SAXON FINDS

BY TORA HYLTON AND IAN RIDDLER

The Saxon finds were mainly recovered from features in the north-west area of Site F. With the exception of a small amount of copper-alloy metal working debris from pit F[346] there are four other Saxon finds. A rare type of handled comb is of particular interest; fragments from three loomweights and a heckletooth attest to the manufacture of textiles.

CHALTON HANDLED COMB

An incomplete handled comb from Site F <B49> comprises a single piece of bone, drilled and sawn along almost two-thirds of its length, to provide two connecting plates (Fig 7.63). These originally accommodated a front end segment, seven tooth segments and a back end segment; one tooth segment and the back end segment are now missing. The comb is double-sided and has two rows of short teeth, the coarser set is cut at 4.5-5.0 teeth every 10mm, and the fine teeth at 6 per 10mm. The front end segment is slightly damaged and has a V-shaped cut at its centre, each set of teeth originally ending with a straight diagonal graduation with a short flange beyond, and ending in a rounded terminal. One of the connecting plates is decorated with a series of panels separated by paired saw-incised lateral lines with short blank spaces between them. These enclose panels of knife-cut thin paired diagonal lines forming chevron patterns with knife-point dots set in the triangular interstices. The end of the comb has a saw-incised band of S-shaped chevrons. The handle is decorated at its end with paired lateral lines and one set of saw-incised triple diagonal lines, and is separated from the connecting plates by two sets of paired lateral lines.

One of the most obvious and characteristic features of this comb is its double-sided format, which is extremely unusual. A small number of medieval double-sided handled combs are known that are 12th-13th-century in date, including examples from Bergen, Dublin, Oslo and Trondheim (Herteig 1969, pl 42; Riddler and Trzaska-Nartowski in prep; Grieg 1933, 238, fig 201). A double-sided handled comb from Aardenburg was associated with sherds of Pingsdorf and Andenne wares, and it is likely that this also dated to the 12th century (Trimpe-Burger 1965-6, 217-8, pl XXXI.5; MacGregor 1985, 92). The only other previously recognised handled comb of double-sided format from England comes from Hamwic and has been illustrated on a number of occasions (Addyman and Hill 1969, pl VIIa; Holdsworth 1975, pl

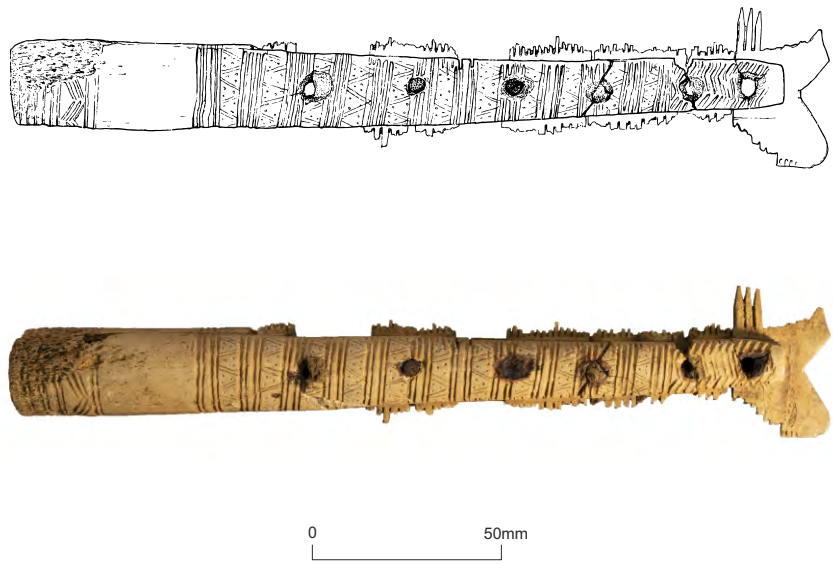


Fig 7.63 Saxon double-sided bone handled comb, 9th century, display side

1e; Pay 1987, 14). The Hamwic comb was recorded as an unstratified find (Hodges 1980, 145) and was later reclassified (Morton 1992, 2). The Hamwic comb has a lightly curved antler handle and secures the segments with seven iron rivets. The front end segment has a straight leading edge, rather than the indented triangular shape of the Chalton comb, but both combs have two sets of teeth of different grade. It is possible that a further fragment of a double-sided handled comb may have come from York, based on the decoration on the surviving fragment (Waterman 1959, fig 17.3).

The decoration of the Chalton comb provides its dating on typological grounds. The location of the decoration is significant. The decoration applied to handled combs is mostly linear and shows comparatively little variation. One of the Chalton comb connecting plates is decorated and the other is entirely blank and does not even include saw marks from the cutting of the teeth. The comb therefore has a display side, which was an English feature abandoned with the adoption of the Scandinavian style comb in the 10th century, in use for a fairly short period of time, c.AD720-870 (Riddler and Trzaska-Nartowski 2013, 260).

All elements of the decoration can be paralleled on contemporary handled combs, and particularly those of 9th-century and later date. The sequence of bone handled combs that are essentially 8th century in date tend to have a restricted range of decorative motifs and are largely based on saw-incised lateral lines with key patterning (Riddler 1990a, fig 1). Such sparse decoration echoes that seen on contemporary double-sided composite combs. By the 9th century there was an increased tendency to utilise antler, rather than bone, and to decorate both the handle and one or both connecting plates extensively. This can be seen on combs from Brandon, Canterbury and Ipswich, amongst other sites (Blockley *et al.* 1995, fig 513.1174; Brent 1879, pl 17.3; Riddler 1997, 194; 2014, 251-6; Riddler *et al.* in prep).

Connecting plates of 9th-10th-century date are decorated with panels set between bands of lateral saw-incised lines, as is the case here, although the panels often include key patterning (Riddler 1990b, abb 1.1; 1997, fig 1). This type of decoration is commonly found on handled combs and is rarely found on contemporary double-sided composite combs.

One connecting plate of the Chalton comb is extensively decorated with panels of thin, knife-cut paired diagonal lines and knife-point indentations set between lateral saw-incised lines. Dot patterning can be seen on a comb from Runnymede and the handle of a comb from Ipswich, and on the fragment from Lagore, Co. Meath in Ireland (Riddler 1990a, fig 2b; Riddler *et al.* in prep; Hencken 1950, fig 99.608). It occurs in combination with paired knife-cut diagonal lines on a handled comb from Jubilee Hall, London, which is a good decorative parallel (Blackmore 1988, 135 and fig 38.6). The sinuous, diagonal line patterning on the end of the handle is replicated on combs from North Elmham and Riby Cross Roads (Wade-Martins 1980, fig 259.2; Steedman 1994, fig 21.1). The S-shaped chevrons on the front of the connecting plate are also similar to those from London (Riddler 1990a, fig 1c).

The size of the comb and its proportions suggest a 9th-century date, although the comb itself is noticeably long. It extends to 221mm, with the handle and connecting plates just over 200mm long. This is significantly longer than the majority of handled combs, particularly those in bone. Few combs survive to their full length, the longest comparable single-sided comb is 183mm long. This comb is so long that it is unlikely that the handle and connecting plates were made from a cattle metatarsus, the customary bone used in handled comb construction. The handle has an oval section and tapers in a narrow format. The bone may be from a horse metacarpus or a metapodial bone from a red deer. A double-sided handled comb from Hamwic is 228mm long, and a comparable comb from Brandon has antler connecting plates that would originally have formed a composite over 220mm long (Riddler 2014, 255, fig 8.15.4442). A number of middle Saxon handled combs were designed in a narrower and elongated form that echo developments with contemporary double-sided composite combs (Riddler and Trzaska-Nartowski 2013, 260).

The Chalton comb is a rare example of a Saxon double-sided handled comb, of the 9th century, possibly in the latter part of that century. The display side has been designed in a narrow, elongated form, with an abundance of decoration along one connecting plate and the handle. Unlike most handled combs it has survived reasonably, lacking only one tooth segment and a back end segment. The desire to produce an elongated comb required a longer bone than is customary.

CATALOGUE

<B49> An incomplete handled comb, consisting of a single piece handle, probably cut from a cattle metatarsus and tapering evenly from the base end to the front of the comb. A slot 4.1mm in width has been drilled and sawn through the front part of the handle to accommodate the tooth and end segments. The handle is 63.3mm in length and the slot is 141.3mm long. The comb includes a front end segment and seven tooth segments, all made of bone; the back end segment is now missing. The front end segment has been secured through the bone, but close to its edge. The tooth segments are fastened on one

edge with the exception of one long segment, which has been fastened on both edges. The six rivets are all made of iron and are unevenly spaced. The comb has two rows of teeth, the coarse teeth spaced at 4.5 per centimetre and the finer teeth at 6 per centimetre. Some of the comb teeth survive, now separate from the comb itself. They show little sign of wear. The comb is decorated around the handle by paired lateral saw-incised lines, with one set of triple lines forming a chevron pattern. Two sets of paired lateral lines separate the handle from the connecting plates. Only one of the connecting plates is decorated. It has groups of two paired lateral lines with a small space between them, separating panels of knife-cut thin paired diagonal chevron patterns, with dots in the interstices. The front end of the comb is decorated with a broad panel of S-chevron patterning. Saw marks from the cutting of the two sets of teeth are almost entirely confined to the decorated side of the comb. F[837], fill of pit F[838].

TEXTILE WORKING TOOLS

A single heckle- or woolcomb tooth <Fe48> is a tapered ferrous metal rod with a pointed terminal. The teeth were supported in rows on a piece of iron sheet, binding a wooden block, called a heckle (Goodall 1984, fig 119, 20-1). Heckles were used for carding wool and bast fibres (flax/hemp), by removing unwanted material and aligning the fibres for spinning into thread.

There are two incomplete ceramic annular loomweights; one is from a pit and the other is from subsoil. The loomweights have been handmade from poorly fired coarse clay, the exterior surfaces are partially oxidised and reduced and the core is black. They have been made by forming a ring with a D-shaped cross section and smoothed out by hand. According to Dunning's classification (Dunning *et al.* 1959, 23-24), two different types are represented; an intermediate weight from the 7th-8th centuries and a bun-shaped weight of the 9th century.

CATALOGUE

<Fe48> Heckletooth, iron. Incomplete, terminal of shank missing. Rectangular section, tapered to a circular-sectioned point. Length (incomplete): 79mm. F[894].

<C19> Annular loomweight, fired clay. Incomplete fragment only. Dunning's bun-shaped weight (ref.), dates to the 9th century. Height: 40mm. F[202].

<C77> Annular loomweight, fired clay. Incomplete, *c.*60% missing. Dunning's intermediate weight (ref.), dating to the 7th—8th centuries. Diameter: *c.*120mm. Height: 40mm. F[891].

Table 7.11: Quantification of early medieval finds by functional category, Site Q

Functional category	**No. of finds**
Structural, nails	18
Structural, general ironwork	6
Keys	1
Tools, knives	1
Horseshoes	2
Horseshoe nails	6
Misc. copper alloy	1
Misc. iron	4
Total	**39**

REGISTERED EARLY MEDIEVAL FINDS
BY TORA HYLTON

SITE Q

Site Q produced 39 finds from a series of ditches and pits in the vicinity of a timber- framed building. The assemblage is dominated by nails, but also includes a key for a mounted lock, a knife and a small group of horse furnishings (Table 7.11). Typologically the finds are early medieval in date.

BUILDING EQUIPMENT

Building equipment is represented by six iron staples and 18 nails. The staples were recovered from posthole Q[828] and are U-shaped with circular cross sections and pointed terminals, which vary in length from 30-40mm.

The nails were located within boundary ditches and pits. Using the shape of the head as the main criteria, three types were identified. The nails also include a stud with a large oval head, 35x22mm, and a square-sectioned shank. The stud is incomplete and survives to a length of 22mm.

The nails are hand forged with rectangular/square cross sections, seven nails have flat sub-circular heads and complete examples are up to 53mm long; they would have been hammered flat with the head flush to the wood. There are five wedge-shaped nails with a tapering profile and no distinct head. Complete examples are 40-46mm long. Finally, two nails have T-shaped heads; one is complete and is 26mm long.

KEY

A complete but damaged iron key came from ditch Q[744] and is similar to Goodall's Type 3, in which the bit is rolled in one with a hollow stem (Goodall 1990a, 1025).

Keys of this type are for use with a mounted lock and the asymmetrical bits ensure that the key can only be used on one side of the lock, suggesting that it may have been used to open a small chest or casket. Keys of this type were in use from the 9th-14th centuries (*ibid*, 1007).

Catalogue

<Fe48> Key for mounted lock, iron. Complete but damaged. Bit rolled in one with hollow stem tapered towards solid neck, terminating in a small circular bow with ?trapezoid cross section. The bow is on the same alignment as the asymmetrical bit. The X-ray reveals that the stem is furnished with two groups of three transverse grooves, sited either side of the bit. The remains of a non-ferrous coating are visible in the grooves and in crevices of the wards/bit. Whole key, 88mm long; Bit, 23mm long, 18mm wide, Q[743].

KNIFE

Five fragments from a knife were recovered and, although unstratified and incomplete, these are stylistically early medieval in date. A whittle-tang fitted with a hilt band and shoulder plate was found together with abraded fragments from a single edged broad-bladed knife, but it is not certain if they are associated. The hilt band is made up of multiple identically shaped ferrous and non-ferrous plates threaded onto the tang and preceded by a ferrous shoulder plate. The X-ray reveals that there is a small gap between each of the plates, perhaps indicating that the sheet metal was separated by organic plates like an 11th-century example from Winchester (Goodall 1990b, fig 255, no. 2748). The plates were decorative and functional; they would have protected the organic material used to make the handle from swelling and splitting. Knives of this type are not uncommon and similar examples are known from early medieval deposits at West Cotton, Northamptonshire (Hylton 2010, fig 11.21, 70 and 72), Goltho, Lincolnshire (Goodall 1987, 157, 64/65**)** and London (Cowgill *et al.* 1987, fig 54, 15).

Catalogue

<Fe26> Knife, iron/copper alloy. Tang fitted with hilt band/shoulder plate, made up of *c*.38-40+ heater shaped plates threaded onto the tang, followed by a ferrous shoulder plate. The plates include four pairs of copper-alloy plates separated by up to eight thinner ferrous plates. Tang, 84mm long. Hilt band/plates, 25mm long, 15mm wide, 10mm deep. Shoulder plate, 6x15mm. In addition, there are four fragments from a broad single edged blade; back of blade and cutting edge parallel. Blade (incomplete), 195mm long, 22mm wide, 4mm thick.

HORSE FURNITURE

There are two horseshoes and six horseshoe nails. Most of the finds were located in deposits sited close to the timber-framed building. The horseshoes are incomplete and only a single branch from each shoe survives. The shoes both display the characteristics of 'Norman' shoes with a sinuous wavy outline, <Fe34> has a tapered/pointed heel with oval countersinkings and circular holes, <Fe43> has a broad heel with rectangular countersinkings and circular holes. Typologically they represent Clarks Type 2a (1995, fig 62) and date to the 11th–13th centuries.

Six horseshoe nails are incomplete with the points broken off, presumably on removal of the shoe. Two of the nails have semi-circular heads (fiddle key nails) that would have been used with the shoes above. Four nails have T-shaped heads that are assumed to be well worn examples (Goodall 1990c, no. 421).

SITE G

A small number of finds were recovered from two medieval pits observed during the targeted watching brief. In addition to two undiagnostic pieces of iron, this small assemblage includes an iron awl/punch and a nail.

The awl/punch is 126mm long and has a rectangular cross section with elongated tapered terminals, one of the terminals is pointed and it has been worn to a circular cross section.

The nail is complete and has a circular, slightly domed head with a square sectioned shank and clenched terminal, 39mm long.

Catalogue

<Fe14> Awl/punch, iron. Rectangular sectioned shank, slightly expanding central section, 7x5mm, tapered terminals. One terminal is worn to a circular cross section, 126mm long. G[1330].

SITE F

Most of early medieval finds came from the southern extent of the excavated area where medieval boundary ditches, pits, postholes and gullies were concentrated. The artefactual evidence implies a poor rural community, reflected in the dearth of items associated with personal ornament (Table 7.12). The finds are dominated by nails, although certain finds suggest that this may have been a work area associated with keeping horses; a small group of knives, a stone mortar for grinding feed, a range of horseshoes, horseshoe

Table 7.12: Quantification of early medieval finds by functional category, Site F

Functional category	No. of finds
Dress accessories	1
Structural, nails	20
Structural, window glass	1
Locks/keys	2
Stone mortars	1
Tools, hammer	1
Tools, knives	3
Tools, spindle whorls	3
Tools, misc. iron	2
Horseshoes	2
Horseshoe nails	4
Horse furnishings	1
Misc. copper alloy	1
Misc. iron	8
Misc. lead	1
Misc. worked bone	1
Total	**52**

nails, a side-link and a cross-pane/claw hammer. Finds recovered from the stone cottage include a hasp and shards of window glass.

Medieval finds were recovered from deposits associated with the stone cottage in the north-east corner of the site, but the majority were concentrated within a series of enclosure ditches and pits sited in the southern portion. Although no finds were recovered from the 11th-century plot many were recovered from boundary ditches of the early 12th century, and the pits and gullies nearby. Some early medieval finds were recovered as residual finds in later deposits, consistent with the pottery.

With the exception of an awl on the south side of the cottage, all the tools were recovered from features in the southern area and these include: a hammer, three knives, one possible working punch and two spindle whorls.

DRESS ACCESSORIES

A copper-alloy buckle plate <Cu73> from comes from boundary ditch F[1263]. The buckle plate is a simple one piece type, manufactured from a rectangular sheet of copper alloy, and folded in half widthways (27mm by 14mm). The plate is recessed for the frame, there is a notch for the pin, and originally it would have been secured by three ferrous rivets (one iron rivet extant). Vestiges of a non-ferrous coating suggest it may have been tinned.

STRUCTURAL FITTINGS

There is little with which to characterise the structural features. There are a few fragments of window glass with blackened surfaces <G78>, a perforated strap fragment <Fe81>, a hasp, a sliding-bolt, and 19 nails.

Catalogue

<G78> Window glass. Eight shards of abraded glass with blackened manganese surfaces, the largest measuring c.10mm by 17mm with vestige of a straight edge (not grozed). F[508], fill of pit F[510]

<Fe81> Parallel-sided rectangular sectioned binding strap, two perforations at one end, one with extant nail. Length: 22mm. Width: 25mm. Thickness: 5mm. F[256], fill of pit F[257]

SECURITY

There is a figure-of-eight hasp <Fe83> and a sliding-bolt <Fe87>, but they are not a pair. The hasp was recovered on the north side of the stone cottage. Hasps are used in conjunction with bolts (and later on padlocks) to secure gates, doors and the lids of chests (Margeson 1993, fig 119, 1310). The bolt was recovered from the southern portion of the site, but it is part of the internal mechanism of a mounted lock.

The bolt comprises a rectangular-sectioned bar with a single centrally placed U-shaped projection protruding from the underside, like those at West Cotton, Northamptonshire (Hylton 2010, fig 11.19, 49) and Thetford, Norfolk (Goodall 1984, fig 131, 178). This mechanism component allows the key to throw the bolt. When the key is inserted and turned past the wards, the tumbler is lifted which releases the sliding bolt, thus opening the lock. The sliding bolt is 115mm long and came from a small lock, perhaps for a casket or chest.

Catalogue

<Fe83> Figure-of-eight hasp, iron. Incomplete, one end missing. Length: 110mm. Width: 6mm. F[508], fill of pit F[510]

<Fe87> Sliding bolt, iron. Complete. Rectangular sectioned bar (*c.*7mm by 3mm) with centrally placed U-shaped projection. Length: 115mm. F[1138], fill of pit F[1140]

NAILS

The nails were scattered widely among the feature deposits. Their distribution gives no clear indication of structural positions. Using the shape of the head as the main criteria, five types were identified (two nails were

headless). The nails are hand forged with rectangular/ square cross sections, 11 nails have flat sub-circular heads and are 17-38mm long, incomplete examples are up to 65mm long. The nails would have been hammered flat, flush with the surface of the wood. There are two complete wedge-shaped nails with a tapering profile and no distinct head, up to 66 mm in long. Two large nails with T-shaped heads are 60mm and 82mm long, one with an L-shaped head and an incomplete nail with a rectangular shaped head. The larger nails would have secured substantial timbers.

Stone mortar

The flat-topped rim of a shelly limestone, perhaps Purbeck Marble, mortar <S58> was recovered from the southern end of an early 12th-century gully within the southern enclosed area. The rim fragment is 50-60mm deep and it would have been 260mm in diameter, when whole. The inside edge is chamfered and then angles down vertically towards the base. There are two lugs; a tapered side lug with trapezoidal cross section and chamfered corners, and a front lug with a wide flat-bottomed runnel, 20mm wide. The exterior surface of the mortar is dressed, diagonal tool marks are evident. The upper section of the interior surface is also dressed but is slightly worn and the lower surface is smooth.

Catalogue

<S58> Mortar, shelly limestone. Internal diameter: 180mm. External diameter: 260mm. Thickness: 30-35mm, tapers toward base. F[1062], fill of pit F[1063]

Hammer

An iron hammer was recovered, together with an undiagnostic fragment of iron. The hammer has a square-sectioned face and neck. The eye, through which the shaft would have been secured, and the opposing end are obscured by corrosion products, making identification difficult. The X-ray shows that it is either an incomplete claw hammer with one claw missing or a medieval cross-pane hammer with curved profile (Goodall 1990d, fig 60, no. 401). Typologically both these forms were in use from the medieval period onwards.

Knives

Three whittle-tang knives with single-edged blades were recovered from early 12th-century deposits in the southern area; two knives are from adjacent features and one is from the surrounding enclosure ditch. All the knives are incomplete with either part of the blade or tang missing, however, their shapes can be determined based on the alignment of the cutting edge and the back of the blade. Two different blade forms are represented with horizontal cutting-edges, one has a flat back which then angles down to the tip <Fe106> and on the other two, the full length of the back angles down to the tip <Fe55> <Fe64>. One knife displays signs of excessive wear by sharpening <Fe55>.

Catalogue

<Fe55> Knife, iron. Incomplete, tip of blade missing, tang and blade damage in antiquity. Stepped shoulder, back of blade angles down to tip and cutting edge horizontal. Cutting edge heavily worn by sharpening. Length: *c.*110mm, blade 70mm, tang 40mm. Width: 11mm. Thickness: 3mm. F[1010], fill of ditch F[1014]

<Fe64> Knife, iron. Incomplete, part of blade missing. Tang central to blade with sloping shoulder. Back of blade angles down to tip and cutting edge is horizontal. X-ray reveals alternating layers of metal. Length: 96mm, blade 73mm, tang 23mm. Width: 11mm. Thickness: 4mm. F[1124], fill of pit F[1125]

<Fe106> Knife, iron. Incomplete, tang missing and blade in three pieces. Tang central to blade with sloping shoulder, back of blade horizontal then angles down to tip. Cutting edge is horizontal. Length: blade 92mm. Width: 16mm. Thickness: 3mm. F[1128], fill of ditch F[1129]

Spindle whorls

There are two stone spindle whorls for hand spinning; a reused ceramic spindle whorl was noted during the pottery analysis by Paul Blinkhorn. A siltstone whorl <C41> was recovered from an 11th-century pit and a limestone whorl <C40> from an early 12th-century pit. The former is hemispherical and ornamented with a crudely executed linear zig-zag motif with hatching <C41>. The latter is lathe turned, conical in shape, with sparse patches of a red substance on the exterior surface, possibly paint, like an example from York (Walton Rogers 1997, 1741).

Catalogue

<C41> Spindle whorl, siltstone. Hemispherical whorl with centrally placed waisted perforation, drilled from both sides. Whorl ornamented with a crudely executed incised linear motif of zig-zags and hatching. Patches of burning on exterior surface, almost vesicular in places and spalled. Diameter: 38mm. Height: 22mm. Perforation: 14mm. Weight: 37.0g. F[635], fill of pit F[636]

<C40> Spindle whorl, limestone. Complete. Conical whorl with centrally placed tapered perforation. Encircling facets indicate that the

whorl was turned on a lath and that a knife may have been used for trimming. Diameter: 35mm. Height: 22mm. Perforation: 9-12mm. Weight: 35.7g. F[633], fill of pit [634]

AWL

A double-pointed implement <Fe42>, presumably an awl for leather or woodworking was retrieved from a 12th-century ditch. The awl has a square/diamond-shaped cross section and two tapering arms of equal length, one arm is the tang and would have been hafted on to a handle and the other, which has been worn to a circular cross section, would have been used as the working end to pierce and make holes.

Catalogue

<Fe42> Awl, iron. Incomplete, tip of one arm missing. Square cross section with tapered terminals, one broken terminal has a worn circular cross section. Length: incomplete 89mm. Width: 5mm at centre. F[646], fill of ditch F[647]

PUNCH

A hand-held punch for making holes in iron was recovered from late medieval infill above the sinkhole. The tip is missing and the head is burred. It has a circular cross section, beyond which it is tapered with a square cross section. A similar example of the late 14th and early 15th centuries was recovered from Bedern, York (Ottaway and Rogers 2002, fig 1328, 13681).

Catalogue

<Fe91> Punch, iron. Incomplete, terminal missing. Length: incomplete 185mm. Diameter: head 15mm. F[1156], fill of ditch [1166]

HORSE FURNISHINGS

The items specific to horses include a side-link, two horseshoes and four horseshoe nails located in the southern area.

An almost complete side-link <Fe44> for attaching the reins to the bit was recovered from the bottom of the pond. It is early medieval in date and, together with pottery sherds in the basal sediment, indicates a long period of use for the waterhole. The side-link comprises a short D-sectioned shank with integral terminal loops but the outer edge of each terminal loop is now missing. Adjacent to one of the looped terminals is a boss-shaped expansion/moulding, a feature seen on early-mid 11th-century examples from Winchester (Goodall 1990c, fig 334, no. 3881) and York (Waterman 1959, fig 1).

Neither horseshoe is complete; just part of the branch survives. Each shoe displays different characteristics; typologically <Fe63> is a Clark Type 2a (1995, fig 62) which dates to the 11th-13th centuries, with a sinuous wavy outline; the branch tapers towards the heel with upset/thickened calkin (Clark 1995, fig 59a), and the countersinkings are rectangular with circular holes. The later horseshoe <Fe71> is Clark Type 4 (1995, 96), and is from 14th-15th-century levelling deposits. The shoe has a broad web, which is slightly tapered and a small square nail holes.

There are four horseshoe nails and three different types have been identified. Two are incomplete fiddle key nails with 'semi-circular' heads (Clark 1995, fig 64) and would have been used with horseshoes of the 11th-13th centuries. Another fiddle key nail was recovered from a post-medieval cobbled surface and was found together with a late medieval horseshoe nail with a rectangular head (Clark 1995, fig 70), both would have been used with the later type of horseshoe recovered. The presence of two horseshoe nails from the same context, that typologically span the early to late medieval periods suggest some levelling accompanied the construction of the cobbled surface. Finally there is an unstratified horseshoe nail with expanded head and ears (Clark 1995, fig 66).

Catalogue

<Fe44> Side-link, iron. Incomplete, opposing outer-edges of loops missing. Two sub-circular loops connected by a short integral bar with D-shaped cross section, adjacent to one of the loops there is a boss shaped expansion/moulding. X-ray showed there was no non-ferrous coating. Length: incomplete *c.*64mm. F[624], fill of ditch [626]

MISCELLANEOUS BONE OFFCUT

A bone offcut is the mid shaft of a cattle metatarsus, sawn cleanly at either end. The outer surface of the bone has been faceted throughout with a knife. At one end it has been lathe-turned and has an indented area and a raised ring of bone, 4mm in diameter. The offcut comes from a 12th-century context and it suggests the manufacture of bone rings like those from Chichester, London and Winchester, (Riddler in prep b; Pritchard 1991, 175; Biddle 1990, 1130-6). Cattle metatarsals were the preferred bone for making rings and they were trimmed and faceted along their length in an attempt to provide an even outer diameter, prior to the turning process. The end result was a series of rings with an external diameter of *c.*25-30mm; this particular offcut is 29mm.

Catalogue

<B62> A complete bone offcut from a cattle metatarsus, cleanly sawn at both ends, with some trabecular tissue at one end. Faceted outer surface with

an oval section. One end shows indications of lathe-turning, with a slightly inset circular indentation, Diameter: 22.5mm internal, 29mm external. F[1228], fill of pit F[1230]

METALWORKING DEBRIS

BY ANDY CHAPMAN

All of the iron and copper-alloy metalworking debris from this period comes from Site F. Five contexts from different features produced 870g of slag including two small pieces of fuel ash slag (30g), which is indicative of general high-temperature burning. An undiagnostic lump of ferrous slag that derives from either a smelting furnace or smithing hearth weighs 485g. The small quantity recovered may derive from smithing a bloom.

Two contexts produced small quantities copper-alloy dross (65g), which suggests that some small scale copper-alloy casting was being carried out. There are eight small irregular blobs of copper alloy (15g) where earth adhered to the surfaces from fluid metal spat from the crucible onto the ground. Two further groups of similar, but slightly larger examples from another pit weigh 30g and also had earth adhering to the surface.

A single flat plate of copper alloy, weighing 20g, had been beaten flat with earth adhering to one surface.

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS

BY VAL FRYER

SITE Q

Eighteen samples from pits, ditches and postholes produced fairly sparse remains. Only three assemblages contained sufficient material for quantification with over 100 specimens and were all from the western boundary ditch, Q[746] (Table 7.13).

Table 7.13: Quantification of significant medieval flots from the western boundary, Site Q

Context		**Q[645]**	**Q[697]**	**Q[692]**
Feature type		**boundary ditch**	**boundary ditch**	**boundary ditch**
Type	**Common name**			
Cereals and other potential crop plant remains				
Avena sp. (grains)	Oat	1cf	1cf	4+8cf
(awn frags.)		8	4	-
Hordeum sp. (grains)	Barley	240	152	112
(rachis nodes)		-	1cf	-
Hordeum/Secale cereale type (rachis nodes)	Barley/rye	8	4	2cf
Secale cereale L. (grains)	Rye	56+8cf	16+2cf	4+12cf
Triticum sp. (grains)	Wheat	2192	452	2004
(glume bases)		8	-	-
(spikelet bases		8	-	-
(rachis internodes)		56	8	4fg
T. aestivum/compactum type (rachis nodes)	Bread wheat	304	12+8cf	60
Cereal indet. (grains)		408	68	172
(basal rachis nodes)		8	-	-
(detached sprouts)		8	-	-
(detached embryos)		-	8	-
Large Fabaceae indet.		1cotyfg	-	-
Herbs				
Agrostemma githago L.	Corn cockle	-	4	-
Anagallis arvensis L.	Scarlet pimpernel	8	-	-
Anthemis cotula L.	Stinking mayweed	192	188	4
Apiaceae indet.		32	8	-
Asteraceae indet		-	4	-
Atriplex sp.	Orache	448	84	28
Brassicaceae indet.		1cf	4cf	-

Context		**Q[645]**	**Q[697]**	**Q[692]**
Feature type		**boundary ditch**	**boundary ditch**	**boundary ditch**
Type	**Common name**			
Bromus sp.	Brome	-	-	4fg
Caryophyllaceae indet.		8	72	-
Centaurea sp.	Cornflower	8	-	-
Chenopodium album L.	Fat hen	-	4	-
Chenopodiaceae indet.		48	24	4
Small Fabaceae indet.	Small legumes	88+104coty	8+16coty	16+16coty
Fallopia convolvulus (L.)A.Love	Black bindweed	32+8cf	8	-
Galeopsis sp.	Hemp-nettle	-	-	8
Galium aparine L.	Goosegrass	8	8	8fg
Lithospermum arvense L.	Corn gromwell	-	1cftf	-
Medicago/Trifolium/Lotus sp.	Medick/clover/trefoil	40	1cf	-
M. lupulina L.	Black medick	8	-	-
Small Poaceae indet.	Grasses	56	8	8
Large Poaceae indet.		3cf	12	24
Polygonum aviculare L.	Knotgrass	264+8cf	20	8+4cf
Polygonaceae indet.		16	-	4
Ranunculus sp.	Buttercup	8	-	4fg
Rumex sp.	Dock	8	-	12
Silene sp.	Campion	-	8	-
Sinapis sp.	Rape/Cabbage type	-	-	1cf
Stellaria sp.	Chickweed type	-	88	-
S. graminea L.	Stitchwort	1cffg	-	-
Veronica hederofolia L.	Ivy-leaved speedwell	8	-	-
Wetland plants				
Carex sp.	Sedge	-	4	-
Tree/shrub macrofossils				
Corylus avellana L.	Hazel	-	-	12fg
Other plant macrofossils				
Charcoal <2mm		xx	xxx	xxx
Charcoal >2mm		x	x	xxx
Charcoal >5mm		-	x	x
Charcoal >10mm		-	x	xx
Charred root/stem		x	x	-
Indet. culm nodes		88fg	8	4fg
Indet. seeds		248	36	8
Other remains				
Black porous and tarry residues		x	x	xxx
Small coal frags.		-	x	x
Sample volume (litres)				
Volume of flot (litres)		**0.3**	**0.1**	**0.1**
% flot sorted		**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens, xxxx = 100+ specimens, + = present
cf = compare, fg = fragment, tf = testa fragment, coty = cotyledon

Cereal grains and chaff are recorded within most assemblages, although preservation is generally very poor. Many grains are severely puffed and distorted and much of the chaff is very abraded and fragmented. Poorly preserved seeds of common segetal weeds are present within twelve assemblages.

Oats, barley, rye and wheat grains are recorded, with wheat being predominant. Most wheat grains are of a rounded hexaploid type, although occasional more elongated specimens are noted. It is unclear whether their shape is indicative of glumed wheat as only a small number of glume bases are noted or whether it is a product of combustion. The presence of glume bases is unusual for a 12th-century ditch, as the production of glumed wheat was a largely middle Saxon practice. Bread wheat type rachis nodes, with diagnostic crescentic glume inserts, are present within all three main assemblages, but other chaff elements are relatively scarce. Other cereal types are also scarce, most likely that they are relicts of crop rotation and were contaminants of the main wheat crop.

Weed seeds are relatively scarce and many are quite poorly preserved. However, the main assemblages contain a moderately diverse flora of segetal weeds and/or grassland herbs that occur in cultivated arable fields. Stinking mayweed, orache, small legumes, black bindweed, goosegrass, medick/clover/trefoil, grasses, knotgrass, buttercup, dock and chickweed are all recorded. A small number of sedge nutlets are present within the assemblage that include fragments of hazelnut shell. Pieces of charcoal and/or charred wood are present throughout, although rarely at a very high density. Most fragments are highly comminuted, but occasional material >10mm in size is recorded along with pieces of charred root or stem and indeterminate culm nodes and inflorescence fragments.

Other remains are, perhaps, surprisingly scarce. Black porous and tarry residues, all of which are probably derived from the high temperature combustion occur infrequently. Occasional fragments of burnt bone, eggshell and small mammal/amphibian bones are noted, and ditch Q[169] included possible mineralised faecal residues.

SITE F

Twenty-one assemblages are recorded and although most are less than 0.1 litres in volume, larger groups came from the north-western edge of the site (Table 7.14). Cereal grains, chaff and seeds of common segetal weeds and grassland herbs are noted at low density. Many of the plant macrofossils are poorly preserved with most of the cereals severely puffed and distorted as a result of burning.

Table 7.14: Quantification of significant 12th-century flots, Site F

Context		**F[261]**	**F[261]**	**F[1271]**	**F[938]**	**F[1197]**	**F[844]**
Feature type		**Posthole**	**Posthole**	**Pit**	**Pit**	**Pit**	**Pit**
Date		**early 12th century**	**early 12th century**	**late 12th C**	**early 12th C**	**late 12th C**	**early 12th C**
Type	**Common name**						
Cereals and other potential crop plants							
Avena sp. (grains)	Oat	416	376	64	8	7	6
(awn)		16	-	-	-	-	2
Hordeum sp. (grains)	Barley	5744	928	86	16	12	28
(rachis nodes)		16cf	8	-	-	-	-
H. vulgare L. (asymmetrical lateral grain)	Six-row barley	-	-	-	-	1cf	-
Hordeum/Secale cereale type							
(rachis nodes)		48	-	1cf	-	-	-
Secale cereale L. (grains)	Rye	416	-	40	-	-	-
(rachis nodes)		48	-	-	-	-	-
Triticum sp. (grains)	Wheat	1632	432	784	265	16	98
(rachis internode frags.)		-	8	-	-	-	-
T. aestivum/compactum type	Bread wheat						
(rachis nodes)		48	24	-	14	-	2+2cf
Cereal indet. (grains)		1968	2688	696	686	38	34
(detached embryos)		32	-	-	-	-	-
(rachis internode frags.)		-	-	-	-	12	-
Large Fabaceae indet.		-	8cotyfg	-	-	-	-

Context		**F[261]**	**F[261]**	**F[1271]**	**F[938]**	**F[1197]**	**F[844]**
Feature type		**Posthole**	**Posthole**	**Pit**	**Pit**	**Pit**	**Pit**
Date		**early 12th century**	**early 12th century**	**late 12th C**	**early 12th C**	**late 12th C**	**early 12th C**
Type	**Common name**						
Herbs							
Agrostemma githago L.	Corn cockle	16	8	-	1cf	-	-
Anthemis cotula L.	Stinking mayweed	64	4cf	1cf	2	4	-
Apiaceae indet.		-	-	-	2	-	1fg
Atriplex sp.	Orache	-	24	-	-	-	-
Bromus sp.	Brome	304	344	-	6	-	6
Chenopodium album L.	Fat hen	-	8	-	-	-	-
Chenopodiaceae indet.		32+16tf	-	8	-	-	-
Cirsium sp.	Thistle	-	-	1cf	-	-	-
Euphrasia/Odontites sp.	Eyebright/ Bartsia	-	-	8	-	-	-
Small Fabaceae indet.	Small legumes	80+32coty	64+8coty	108+20coty	8	6	16+14coty
Fallopia convolvulus (L.)A.Love	Black bindweed	-	-	1cf	-	2	-
Galium sp.	Goosegrass	-	1cf	-	-	-	-
Lithospermum arvense L.	Corn gromwell	96+32fg	32	32	-	-	-
Medicago/Trifolium/Lotus sp.	Medick/clover/ trefoil	32	-	-	2	-	-
Plantago lanceolata L.	Ribwort plantain	-	-	-	4	-	-
Small Poaceae indet.	Grasses	64	-	16	4	18	10
Large Poaceae indet.		208	16	8	-	-	-
Polygonum aviculare L.	Knotgrass	16	-	8	-	-	-
Polygonaceae indet.		-	-	-	-	-	4
Prunella vulgaris L.	Self-heal	-	-	1cf	-	-	-
Rosaceae indet.		1cf	-	-	-	-	-
Rumex sp.	Dock	32	32	8	-	9	-
Sherardia arvensis L.	Field madder	-	-	-	1	2	-
Valerianella dentata (L.)Pollich	Cornsalad	16	-	-	-	-	-
Wetland plants							
Carex sp.	Sedge	80	24	8	-	-	-
Eleocharis sp.	Spike-rush	-	-	-	4	1cf	-
Tree/shrub macrofossils							
Corylus avellana L.	Hazel	-	-	18	4	-	-
Other plant macrofossils							
Charcoal <2mm		xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Charcoal >2mm		xxxx	xxxx	xxx	xxx	xxx	xx
Charcoal >5mm		-	xxx	x	xx	xx	x
Charcoal >10mm		x	x	x	x	x	x
Charred root/stem		xx	-	x	x	-	x
Indet. culm nodes		-	8	-	-	-	-
Indet. inflorescence frags.		-	-	-	-	-	x
Indet. seeds		16	24	16	-	4	-
Other remains							
Black porous and tarry material		xxxx	xxxx	x	x	x	x
Bone		-	-	-	x	xx	x

Context		F[261]	F[261]	F[1271]	F[938]	F[1197]	F[844]
Feature type		**Posthole**	**Posthole**	**Pit**	**Pit**	**Pit**	**Pit**
Date		**early 12th century**	**early 12th century**	**late 12th C**	**early 12th C**	**late 12th C**	**early 12th C**
Type	**Common name**						
Burnt/fired clay		-	x	-	x	xx	x
Burnt organic concretions		-	x	-	-	-	-
Eggshell		-	x xb	x xb	x	-	x
Small coal frags.		-	-	-	-	-	x
Small mammal/amphibian bones		-	x	x	x	x	-
Vitreous material		-	x	-	-	-	-
Sample volume (litres)							
Volume of flot (litres)		**0.6**	**0.5**	**0.4**	**0.2**	**0.1**	**0.1**
% flot sorted		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens, xxxx = 100+ specimens, + = present
cf = compare, fg = fragment, tf = testa fragment, b = burnt, coty = cotyledon

Oats, barley, rye and wheat grains are recorded in most instances. However, the samples from within posthole F[261] are distinctly barley dominant. Much of this material is too poorly preserved to be closely identified, but a single possible asymmetrical lateral grain of six-row barley is noted from pit F[1197]. Chaff is generally scarce, but oat awn fragments are recorded along with barley and rye rachis nodes and a small number of bread wheat nodes with distinctive crescentic glume inserts. Other foodstuffs occur very infrequently, but the assemblage from ditch F[437] contains a single pea. Cotyledon fragments of probable peas or beans also occurred in posthole F[261].

Seeds of common segetal weeds and grassland herbs are present at a low to moderate density. Taxa noted most frequently include corn cockle, stinking mayweed, brome, small legumes, corn gromwell, grasses and dock. Sedge and spike-rush nutlets are also recorded along with occasional fragments of hazel nutshell. Pieces of charcoal and/or charred wood are present throughout, and although most are highly comminuted, larger fragments over 10mm in size are present. Other plant remains occur very infrequently, and the assemblage posthole F[261] includes a number of indeterminate root/stem fragments.

Black porous and tarry residues are present throughout, being particularly abundant within in posthole F[261]. Other remains are less common throughout comprising bone splinters, eggshell, pellets of fired clay and small mammal/amphibian bones.

Faunal remains

by Rebecca Gordon

Site Q

Saxo-Norman bones

There are 122 Saxo-Norman bone elements, mostly in good condition, although still highly fragmented. Four bones exhibit carnivore gnawing and butchery marks are on a cattle scapula and humerus. Cattle make up the majority of the assemblage, whereas the proportion of sheep/goats and pigs are low (Table 7.15; Fig 7.64). The elements for cattle indicate processing nearby. Sheep/goat and pig body part data are too few to comment. On the whole, cattle remains are from skeletally mature individuals. This is loosely confirmed by the adult teeth from four of the five cattle mandibles. The fifth mandible is from an animal, 18-30 months old at death. There is a dearth in sheep/goats and pigs elements with fusion data, which restrict detailed analysis. For sheep/goats, two mandibles are from animals 4-6 years old at death and one loose tooth is from a pig, 21-27 months old at death. Four cattle third molars are missing a hypoconulid which suggested a limited breeding population. All the faunal remains are from ditch fills. Ditches Q[83] and Q[1065] had deposits of cattle butchery waste, mainly cranial and vertebrae elements; the latter includes a mix of domestic and butchery waste. Sheep/goats butchery waste was found in ditch Q[88]. Spavin is recorded on a cattle metatarsal that had caused the tarsals to ankylose to the proximal

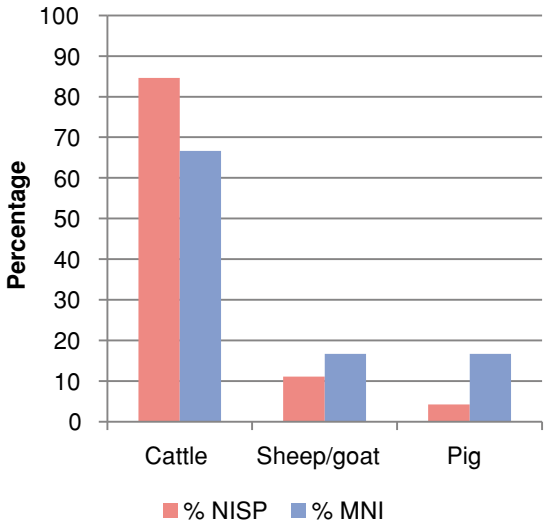


Fig 7.64 NISP and MNI % of hand-collected cattle, sheep/goats and pigs for the Saxo-Norman period, Site Q

metatarsal, limiting movement. The aetiology of the disease is uncertain but it has been associated with osteoarthritis or inflammation of the soft tissue, which can occur in animals used for draught purposes (Baker and Brothwell 1980, 177). Evidence of bone working on a horse metacarpal came from ditch Q[79].

EARLY 12TH-CENTURY BONES

There are 219 bone fragments. Preservation is varied; the majority of the remains are in good condition but there is a moderate amount in fair or poor condition. Ten specimens exhibit carnivore gnawing and three cattle specimens have butchery marks. The remains are highly fragmented. Cattle, sheep/goats and pigs are the most universal species (Fig 7.65). Other species are horse, dog, chicken and goose. Small rodents such as vole and mouse are also present. Compared to the Saxo-Norman period, both cattle and sheep/goats dominate the assemblage. There is a lack of body part data overall, nonetheless, the range of elements is what would be expected if the whole animal was butchered and consumed. The sample size is small and makes conclusions about the slaughter profile difficult beyond broad generalisations. Cattle and sheep/goats were mature at the time of death. One sheep/goats radius is from a lamb, which suggests on-site breeding. Tooth wear data is better represented for sheep/goats, indicating they were as young a 6-12 months and as old as 4-6 years at death. One cattle mandible is from an adult and two pigs mandibles were from animals 14-21 months old at death.

Pit Q[389], had the remains of an adult dog skeleton comprising humerus, vertebrae, tibia, radius, scapula metacarpal, pelvis, ulna and skull fragments. There were no signs of butchery or trauma on the remains,

Table 7.15: Number of hand-collected identifiable specimens present (NISP) for the Saxo-Norman period, Site Q

Species	NISP	%
Cattle (*Bos taurus*)	99	81.2
Sheep/goat (*Ovis/Capra*)	11	9.0
Sheep (*Ovis aries*)	2	1.6
Pig (*Sus scrofa*)	5	4.0
Equid (*Equus* sp.)	2	1.6
Lagomorph	3	2.6
Total	**122**	-

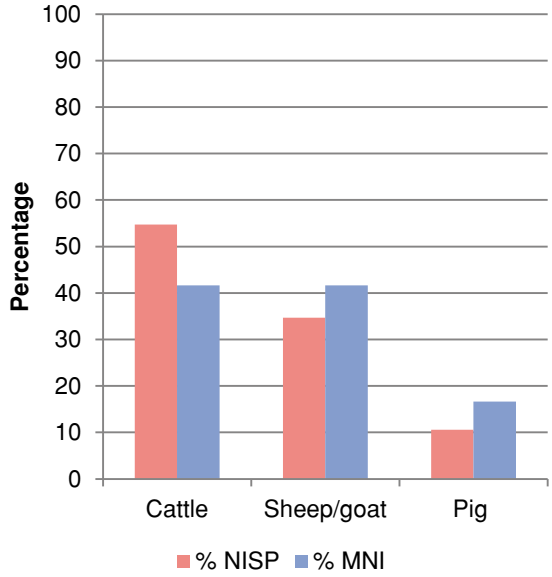


Fig 7.65 NISP and MNI % of hand-collected cattle, sheep/goats and pigs for the early 12th century, Site Q

although extra bone growth was exhibited around the articulating surface on four cervical vertebrae. This osteophyte can develop on the skeleton for a number of reasons including old age. The animal was buried in a pit away from the main settlement along with cattle, sheep/goats, pigs and chicken bones. The mixture of domestic waste makes it unlikely to have been respected as a pet (Gordon 2016).

There is no distinction between the disposal of butchery and kitchen waste in different deposits. For instance, ditch Q[645] had an articulating cattle ankle (i.e. calcaneum, astragalus, and cuboid), which is indicative of primary butchery waste. However, the same ditch had cattle limb bones which are associated with kitchen waste. There were no major differences in the disposal of species in different features, except that chicken bones were found mostly in pits and sheep/goats bones were more common in postholes compared to cattle (Table 7.16).

Table 7.16: Hand-collected species by feature type for the early 12th century, Site Q

Species	Ditch	Pit	Posthole	Gully	Total
Cattle (*Bos taurus*)	59	26	8	-	**93**
Sheep/goat (*Ovis/ Capra*)	14	13	23	-	**50**
Sheep (*Ovis aries*)	5	1	3	-	**9**
Pig (*Sus scrofa*)	9	8	1	-	**18**
Equid (*Equus* sp.)	8	1	1	1	**11**
Dog* (*Canis familaris*)	-	27	-	-	**27**
Chicken (*Gallus gallus*)	1	5	-	-	**6**
Goose (Anser sp.)	-	1	-	-	**1**
Vole	-	1	-	-	**1**
Mouse	-	1	-	-	**1**
Small rodent	-	2	-	-	**2**
Total	**96**	**86**	**36**	**1**	**219**

SUMMARY

The faunal remains reflect a self-sufficient community that consumed domesticated species. Cattle and sheep/goats clearly provided the bulk of the meat consumed whereas pigs seemed to have been eaten in smaller quantities to supplement the diet. There are few changes in the proportion of animals over time. In most cases, the proportion of cattle and sheep/goats are similar except for the Saxo-Norman period, where clearly cattle predominated. The proportion of pigs increased by the early 12th century which is a pattern that has been attributed to an increase in grain production, which provided extra food for pigs (Grant 1988, 159).

MID/LATE 12TH-CENTURY BONES

There are 102 faunal elements in fair condition and mostly fragmented. Four specimens display carnivore gnawing. Butchery marks are on three specimens; cattle atlas, sheep/goats tibia and chicken humerus. The atlas displays cut and chop marks that are typical of dismemberment. The remains comprise the three main domesticated species (cattle, sheep/goats and pigs) as well as horse, dog and chicken (Table 7.16). Cattle and sheep/goats make up the majority of the assemblage and the range of body parts indicate that they were processed and consumed within close proximity of the settlement. Fusion information for cattle, sheep/goats and pigs is poor due to the sample size. Three cattle mandibles are aged; one is from an animal of 18-30 months and two are adult. Six sheep/goat mandibles and/or loose teeth are aged which range from 6-12 months to 4-6 years. One cattle third molar has a missing hypoconulid and one pig's canine and alveolus is from a female. Most of the faunal remains are from ditches but there are no clear deposits of domestic or butchery waste.

Pit Q[549] contained the remains of a sheep/goat skeleton. Although the skeleton is not complete the cranial elements, forelimbs and hind limbs are recorded. Based on the tooth wear stage the specimen was 2-3 years old at death. There is a cut mark on the lateral side of the proximal end of the tibia. This deposit is interesting as it appears to have been buried separately and not discarded amongst the rest of the food waste; however, the cut mark suggests the animal's meat was consumed.

Due to the fragmented nature of the animal bones, there is a paucity of fusion and tooth wear data, which prohibits detailed analysis of animal slaughter profiles. Based on the information available, cattle and sheep/goats were culled as mature animals for their beef and mutton. The cattle molars with missing hypoconulids indicate that the inhabitants relied on a small breeding stock to provide them with offspring (Davis 1997, 425; Thomas 2005b, 74). There was more evidence to suggest that sheep/goats were culled once they had reached prime meat age, which implies a mixed economy. Pigs would have been culled for meat after they had achieved the optimum balance between meat and fat content. Domestic chickens, geese, dogs and horses would have all had a role in the community. Horses may have been butchered for meat, evident by the marks observed on a horse metatarsal. A worked horse metacarpal from the Saxo-Norman period also shows that the bones were used for craft purposes. Although wild resources may have been consumed there is no evidence to suggest they played a significant dietary contribution. The small amount of deer antler could easily have been collected and utilised as a raw material.

SITE F

EARLY/MIDDLE SAXON

Thirty-four bones were recovered from the early/ middle Saxon pits. In general, the condition of these remains is good. Nine specimens exhibit carnivore gnawing and one sheep/goats ulna is burnt. Cut and chop marks are on three specimens: a cattle humerus, metacarpal and pigs rib. Cattle, sheep/goats, pigs, dog

Table 7.17: Hand-collected and sieved specimens from the early/middle Saxon pits, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	23	0
Sheep/goat (*Ovis/Capra*)	4	1
Sheep (*Ovis aries*)	1	0
Pig (*Sus scrofa*)	2	0
Dog (*Canis familaris*)	1	0
Chicken (*gallus gallus*)	0	1
Small rodent	0	1
Total	**31**	**3**

and chicken are all present (Table 7.17). There is also a radius from a large bird. There are too few bones to comment on body parts. The cattle were skeletally mature and tooth wear data indicates fours specimens which range from 8–30 months at death to over 6 years, suggesting that prime meat and older animals were utilised. For sheep/goats two mandibles were from animals of 6-12 months and 4-6 years old at death. The chicken femur was from an adult bird.

LATE SAXON

Twenty-eight bones are from late Saxon cultivation soils. Cattle, chicken, mole and amphibian bones are identified (Table 7.18). The chicken bone was juvenile, which implies they were bred on site. There are a number of amphibian bones with at least 14 humeri, and based on three pelves they appear to be frogs. In the absence of substantively wet conditions, such as boggy grass tussocks, or pools of water this is hard to quantify but may indicate the presence of manuring from middens upon which insects might proliferate.

SAXO-NORMAN

There are 112 bones in good condition. There are 14 specimens gnawed by carnivores. Butchery was noted on three specimens. Cattle, sheep/goats, pigs, horse, chicken and amphibians are present (Table 7.19). Based on the body part data for cattle, sheep/goats and pigs, these animals were slaughtered and consumed nearby. Phalanges and metapodials are absent for sheep/goats and pigs, which reflects recovery bias during excavation. Fusion data is loosely available for cattle and pigs that shows cattle were skeletally mature and pigs were juvenile animals. One cockerel is noted by the spur on the tibiotarsus. Four cattle mandibles show that they were culled at maturity. One sheep/goat mandible is from an animal of 6-12 months old and another was 8-10 years old at death. One cattle pelvis has signs of eburnation on the acetabulum, characteristic of osteoarthritis, which can develop in cattle used for traction (Groot 2005: 54- 55).

Table 7.18: Hand-collected and sieved specimens from late Saxon cultivation soils, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	2	0
Chicken (*gallus gallus*)	1	0
Small rodent (mole?)	0	6
Amphibian	0	14
Unidentifiable medium mammal	1	0
Total	**4**	**20**

Table 7.19: Hand-collected and sieved specimens from Saxo-Norman contexts, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	44	1
Sheep/goat (*Ovis/Capra*)	23	6
Sheep (*Ovis aries*)	2	0
Pig (*Sus scrofa*)	21	0
Equid sp.	10	0
Chicken (*gallus gallus*)	4	0
Amphibian	0	1
Total	**104**	**8**

The features were dominated by the main domesticates with cattle remains predominating, typically seen at other contemporary sites in Bedfordshire such as the A421 (Holmes 2007b) and Tempsford Park (Hutchins 2005). The lack of wild animal resources implies that the community was self-sufficient and that animals were reared close to the settlement with few species in the way of hunted animals, which is a common characteristic (O'Connor 2014, 112).

MEDIEVAL (EARLY/MID AND MID/LATE 12TH CENTURY)

There are 118 well-preserved bones from the early/mid 12th-century features. Seventeen specimens show signs of carnivore gnawing. Cut marks are noted on a pig's astragalus and cattle tibia. The main domesticates are the most frequent species followed by horse (Table 7.20). Other species include dog, chicken, goose, passerine, amphibian and a fish. A red deer antler fragment in extremely poor condition is also present, which suggests it was redeposited. Too few bones exist for body part analysis but the range of elements implies that animals were reared and slaughtered locally. The fusion and tooth wear data for cattle suggest they were largely adult at the time of death. There is a lack of epiphyseal fusion data for sheep/goats and pigs; however, the tooth wear data

Table 7.20: Hand-collected and sieved specimens from the early/mid 12th century, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	26	1
Sheep/goat (*Ovis/Capra*)	33	2
Sheep (*Ovis aries*)	5	0
Pig (*Sus scrofa*)	25	1
Equid sp.	15	1
Dog (*Canis familaris*)	1	0
Chicken (*gallus gallus*)	2	0
Goose (*Anser* sp.)	1	0
Passerine	1	0
Amphibian	0	1
Small rodent	0	2
Unidentifiable fish	0	1
Total	**109**	**9**

shows that the majority were culled at prime meat age (i.e. 2-4 years for sheep/goats and 1-2 years for pigs). Two sheep were culled around 4-6 years old, which suggests that livestock were also kept for wool and milk production. There is also a bovine pelvis from a cow.

The animal remains from the mid/late 12th century total 131 bone fragments. Eleven specimens display carnivore gnawing, four specimens (three cattle and one sheep/goat) have cut/chop marks and two specimens are burnt (Table 7.21). Cattle, sheep/goat, pig and horse are the most common species; others include dog, chicken, amphibian and mole. Body part analysis of cattle and sheep/goats may point to animals being reared nearby. The fusion and tooth wear data for cattle suggest they were at least fully mature when culled and the sheep/goat data shows that animals were kept for meat, wool and milk. Ageing data for pigs was negligible; one third phalanx came from a neonatal piglet. Three pig canines are sexed; two are female and one is male. One sheep pelvis is from a ewe.

Late medieval

There are 68 bones in good condition from levelling and clearance deposits. Nine display signs of carnivore gnawing. Three bones exhibited butchery marks. The species present include cattle, sheep/goat, pig, horse and amphibian (Table 7.22). There was also a juvenile medium bird from pit F[1156]. Body part analysis is not possible due to the paucity of data, and fusion and tooth wear data is also limited. Ageing data available for sheep/goats shows that prime meat and older animals are present. There are two pig canines from boars.

Table 7.21: Hand-collected and sieved specimens from the mid/late 12th century, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	29	2
Sheep/goat (*Ovis/Capra*)	31	1
Sheep (*Ovis aries*)	4	0
Pig (*Sus scrofa*)	19	6
Equid sp.	20	0
Dog (*Canis familaris*)	7	1
Chicken (*gallus gallus*)	2	0
Amphibian	1	5
Large rodent	0	1
Mole	0	1
Unidentifiable fish	0	1
Total	**113**	**18**

Table 7.22: Animal bone from late medieval clearance and levelling, Site F

Species	Hand-collected	Sieved
Cattle (*Bos taurus*)	21	1
Sheep/goat (*Ovis/Capra*)	20	3
Sheep (*Ovis aries*)	2	1
Pig (*Sus scrofa*)	2	2
Equid sp.	15	0
Amphibian	1	0
Total	**61**	**7**

Summary

The medieval animal bone is indicative of the wider local economy off-site, as much of it is from midden material. The diet was dominated by domesticated species and the lack of species diversity suggests a simple diet based on food produced or obtain locally. After the main domesticates, horses were the most common animals. This is unsurprising as they were important for transport, hunting and/or for traction (Grant 1988: 160). Pigs, chicken and geese were bred on site and would have lived off household scraps (Grant 1988). Pigs would have provided a good source of fat and meat. Poultry would have provided eggs, offspring and feathers. The ageing evidence suggests that the majority of cattle were older and that traction power, milk and breeding was the primary focus. Although the ageing data for sheep/goats was limited they appeared to be subject to a mixed economy, which focused on meat, wool and milk. Other than the red deer antler, there was little evidence for craft activity on the site. There was no obvious spatial difference in the disposal of animal bones across the site, and this is another indication of infilling from midden waste.

OYSTER SHELLS

BY JIM BROWN

All of the shells are from European flat oysters, *Ostrea edulis.* There are 11 shells (163g), three from Site Q and eight from Site F, which came from 12th-century contexts, with one example in a later medieval fill (see Winder 2011).

These shells are small for their species, in the range of 38-50mm, with only one larger example. Shells from Site F have a growth pattern of thin bands on the shells of less than 1mm in most instances; with only one shell with bands up to 2mm thick. The bands laid down by rapid growth during the warmer months from March to late October produce ridges; the mean number is 6.8 ridges per shell, suggesting these oysters had just reached maturity. These shells exhibit reduced growth resulting from a fairly cool water temperature and were harvested whilst barely mature.

The shells are mostly pear-shaped, and most of these curl towards the dorsal tip, which may be an indication of higher current. One upper valve is elongated. There are six right valves and five left valves, although they are not pairs. The inner surfaces are unblemished smooth white mother of pearl. One shell was infested by Bristleworm (*Polydora ciliata*), a species of tubeworm, but the others appear healthy.

There is one left valve with a possible shuck mark on the anterior edge. This is created by forcing the knife into the dorsal edge, moving from side to side to prise open the shell and running the knife along the shell, before twisting it slightly to cut the muscle ligaments. This suggests that instead of being steamed open, the shellfish were probably eaten raw. A second left valve shows damage to the inside of the anterior margin caused by the sideways movement. Both shells indicate the person opening the oysters was left handed.

These oysters could be from either wild or cultivated sources, but seem to have been gathered from cooler waters consistent with the north and east coasts of England. Their young age at collection may indicate overharvesting.

MOLLUSCS

BY VAL FRYER

Specific sieving for molluscan remains was not undertaken; shells of terrestrial snails were present throughout, but most specimens retained delicate surface structuring and coloration, and are considered intrusive. Species were recorded during Stage 1 assessment (Fryer 2016). Samples from Site F suggested that the abraded shells came from species found in open grassland habitats, certain of which prefer shaded areas or leaf litter, particularly those in ditch F[207]. No further interpretation of the molluscan remains was undertaken.

RADIOCARBON DETERMINATIONS

Although it was not the intention of the radiocarbon analysis to target late Saxon and medieval evidence for cultivation, several of the selected charred grain samples were intrusive within earlier contexts. The results of these determinations are provided in Table 7.23 and are illustrated in Fig 7.66.

Disarticulated human bone was found at Site F in the vicinity of a plough-damaged pit, and barley grains recovered from the sieved samples were dated AD980–1035 cal (95% confidence, 1020±30BP, Beta 446427). Human bone was subsequently analysed to corroborate the date, although analysis showed the bone was considerably earlier, dating from the late 4th–5th centuries (see Chapter 5, Table 5.12). The barley is therefore thought to date the plough soil through which the human remains had been scattered and when combined with evidence of horticultural scars through the soil layer may demonstrate late Saxon cultivation on the hillside to the south-east of Chalton.

Bioturbation within the soil at Site G, mainly through worm sorting, had transported cereal grains from medieval cultivation furrows deep into middle Iron Age contexts. These wheat grains consequently provide a date range for the operation of medieval open field agriculture at Thorn, a key medieval settlement within the manor of Houghton Regis, starting in the late 11th century and ending in the late 12th–early 13th centuries. This date range is coincidental with the period of activity observed in the buried archaeology at Sites G and Q. The early disuse of the open fields and of associated settlement activity suggests a sudden shift in land management and possible settlement shrinkage, moving away from arable production, and perhaps replaced by pasture. The timing may also be linked to the shift in control of the land around Thorn between secular and ecclesiastical interests.

These scientific dates are subject to fewer variations in the radiocarbon calibration curve and consequently lie within a close range of probability. The dates compare well with artefactual evidence and in particular, pottery from the settlement.

Table 7.23: Radiocarbon determinations producing late Saxon and medieval dates

Laboratory & Sample no.	Context	Sample details	C13/ C12	Conventional radiocarbon age BP	Calibrated BC/AD intercept *68% confidence* 95% confidence
Beta-446427 A5M1/F905	layer F[905]	cereal (barley)	–21.5	1020±30 late Saxon	1020 *995–1025* **980–1035**
Beta-458332 A5M1/G1172	pit G[1174]	cereal (wheat)	–24.4	920±30 medieval	1050/1080/1150 *1040–1160* **1025–1190**
Beta-458335 A5M1/G1322	posthole G[1323]	cereal (wheat)	–21.6	920±30 medieval	1050/1080/1150 *1040–1160* **1025–1190**
Beta-458336 A5M1/G1342	ditch G[1344]	cereal (wheat)	–24.0	960±30 medieval	1035 *1025–1050/1085–1125/1140–1150* **1020–1155**
Beta-458337 A5M1/G1351	ditch G[1353]	cereal (wheat)	–22.5	880±30 medieval	1165 *1155–1210* **1045–1095/1120–1220**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration

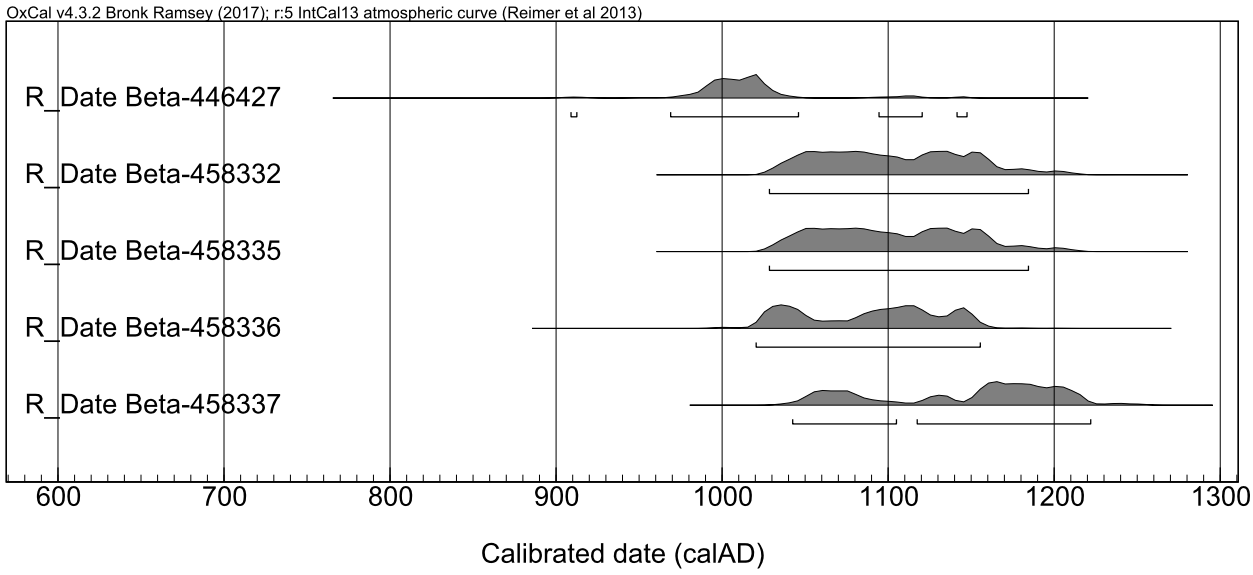


Fig 7.66 Radiocarbon determinations producing late Saxon and medieval dates

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

Evidence for settlement in Bedfordshire during the 5th–8th centuries is thought to comprise dispersed occasional low level activity in and around largely abandoned late Roman sites. The Anglo-Saxon Chronicle AD571 suggests that the settlement at Limbury continued in use into the 5th–6th centuries (AA 2003b). Sunken-featured buildings are the main domestic indicator of the period, with sparse pottery, loomweights and animal bone found. Their presence was noted in the north-east quadrant of Dunstable (Matthews 1962b), and at Puddlehill where there was probably a smallholding and a small cemetery (Matthews 1962a; 1981; 1989). The material culture takes on the guise of a non-Christian population, although there is some debate as to the ethnic identity of these people: whether they were Anglo-Saxons, the descendants of local Britons, or a smattering of both (Rutherford-Davis 1982). The same situation continues into the 9th century where a distinct lack of variation in the material culture makes it difficult to distinguish

Saxon populations. The result is perhaps an overly Anglicised portrayal of the population.

Saxon and medieval sites are recorded by the Historic Environment Record (HER) within a 1km-wide corridor around the A5–M1 link road (Fig 7.67, Table 7.24). Only two unstratified spot finds have been recorded by the Portable Antiquities Scheme (PAS) within the area. These comprise a copper-alloy elongated strap end (HER18794) and a medieval seal matrix (HER19291), although neither find location is known with precision.

The nearest known Saxon burial ground is *c*.0.5km to the north, located to the east side of the Bedford Line railway near Chalton under the former Sundon brickworks and identified during construction of the railway (HER14733; Fig 7.67). Very little information is clearly known about the site and no modern analysis has taken place; the reference comes from the Ordnance Survey archaeology record cards and brief discussion by Morris (1962a, 64-65). The closest known middle Saxon settlement is likely to have been in the manor of Sundon, which was a wealthy demesne by the 11th century.

FROM POST-ROMAN TO SAXON

The nature of dispersed settlement during the early Saxon period has resulted in a lack of identified archaeological sites. It is thought that a low level influx of settlers in this period made use of the existing field systems and adopted the same farming practices, living alongside existing inhabitants, and thus producing similar settlement patterns (Edgeworth 2007a). It may also be argued that dispersed low level activity is not visible due to its peripheral location to core sites that lie beneath larger nucleated late Saxon villages and hamlets and are thus not available for study.

Given this, a great deal of focus has consequently been paid to nearby cemetery sites. Many cemetery sites of this period were quite extensive and suggest that a substantial population was resident in the area. At Marina Drive, Dunstable, 49 graves were found (Morris 1962b, Wingfield 1995), and the proposed execution cemetery at Five Knolls, south-west of Dunstable, produced over 100 inhumations in association with five Bronze Age barrows (Dunning *et al.* 1931; Dingwall 1931), although the dating and interpretation of that site are not secure (Mattison 2016, 73). At Argyll Avenue, Luton, around 40 inhumations and three cremations were identified, accompanied by spears, swords, iron shield bosses and 32 brooches dated to the 5th-6th centuries (Dony and Dyer 1975; Hagen 1971; Kennett 1973). The cemetery extended to the north-west, and additionally late 7th-century burials have also been found nearby.

Other early Saxon cemeteries in the vicinity were found during the 19th–early 20th centuries. An unknown number of skeletons with weapons and gold rings were reportedly identified at Chalton (Blundell 1925).

Table 7.24: HER data for the Saxon and medieval periods

Age noted by HER	HER Ref	Description	NGR	
Saxon	10843	*Theodweg* (Theedway or Ede Way)	498690	225770
Saxon	14733	Saxon cemetery	503900	226300
medieval	140	Thorn Spring moated site (SM1013519)	500390	224970
medieval	147	Manor site with medieval finds, Bury Field	500600	224700
medieval	1638	Ridge and furrow, Calcutt	598630	223090
medieval	3395	Possible moat, Calcutt	501200	225300
medieval	5073	Ridge and furrow, Tilsworth	498610	224660
medieval	12242	Thorn Green	500200	224600
medieval	12243	Bury Corner Green	500700	224900
medieval	12244	Calcutt Green	501200	225200
medieval	12263	Ridge and furrow, Houghton Regis	502680	225340
medieval	12269	Earthworks, north-east of Thorn Spring	500580	224970
medieval	16888	Thorn medieval settlement	500100	224700
medieval	16983	Chalton medieval settlement	503140	226430
medieval	18794	Strap end, Tilsworth	499000	224000
medieval	19291	Seal matrix	500000	224000
medieval	19927	Ridge and furrow	501570	224950
medieval	19928	Ridge and furrow, east of Calcutt	501690	225370
medieval	19929	Ridge and furrow	503360	225410

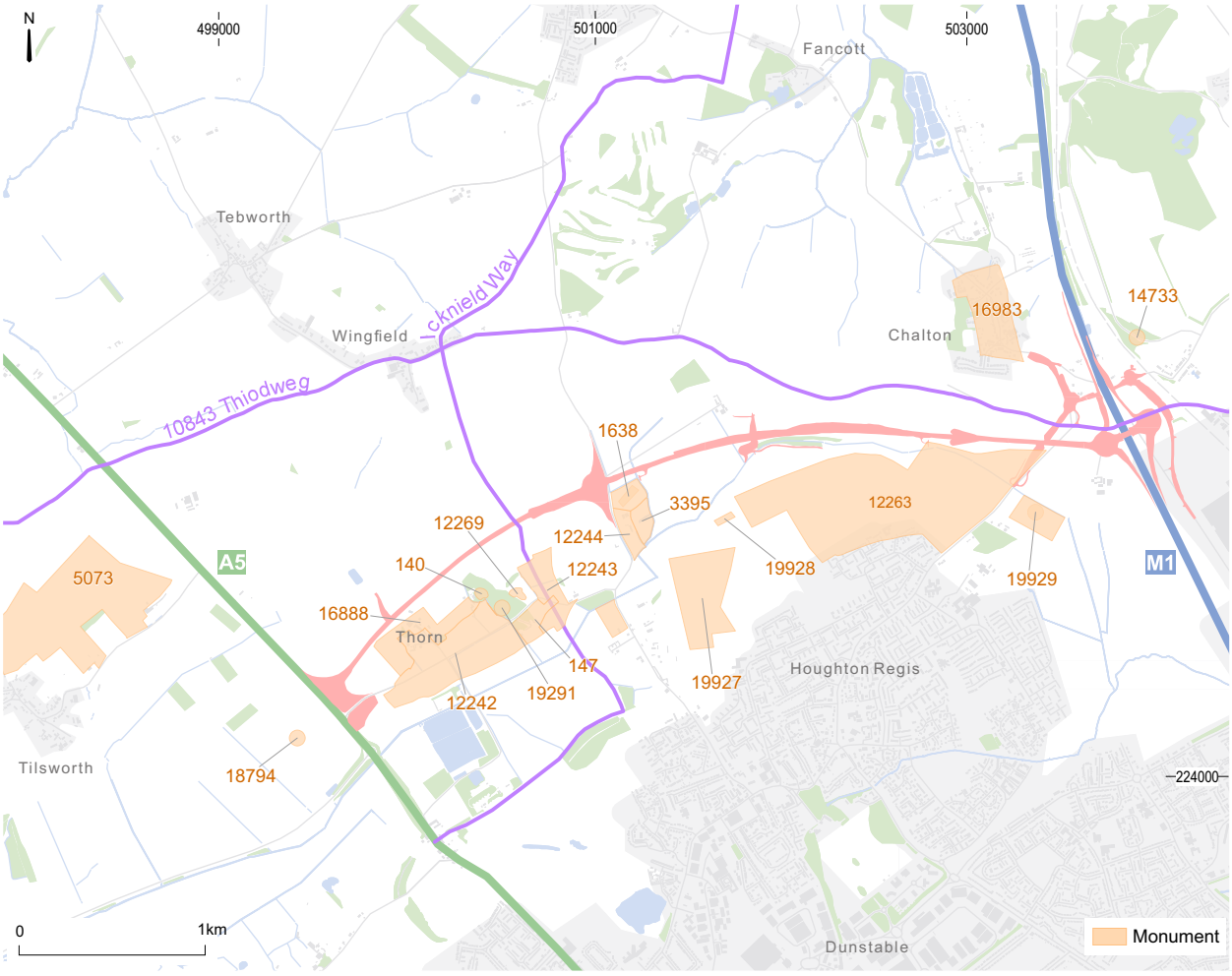


Fig 7.67 HER data for the Saxon and medieval periods

Seventeen inhumations of 6th-century date were excavated at Toddington near Sheepwalk Hill in the mid-late 19th century. Finds included a shield boss, sword, knives, buckles and brooches, 17 beads, a bronze pin, six finger rings, possible wrist clasps, an earscoop and tweezers, a possible girdlehanger and pottery (Morris 1962a). Other cemetery sites are, in general, rich in metal grave goods, pottery and other finds. A further Saxon cemetery is recorded adjacent to the east side of the Bedford Line railway near Chalton, under the former brickworks (HER14733). Little information is known about the site, but it lay *c.*0.5km from the mid to late 7th-century inhumations at Site H (Fig 7.67). The area is also sometimes referred to locally as the Warmark; a placename indicative of a battle. Battles between the Britons and the Saxons were documented by the Anglo-Saxon Chronicle in AD571 (AA 2003c), but the accurate location and extent of conflict is not known. Regardless, there is little evidence that the human remains excavated from Site H were the result of death in conflict.

Until the 8th century Saxon settlement in Bedfordshire probably comprised dispersed hamlets or individual smallholdings, and middle Saxon settlement remains are also elusive. The land within the scheme falls across several parishes, all of them within the Saxon Hundred of Manshead; including Tilsworth, Chalgrave, Houghton Regis and Toddington, which on the index map of the Manshead Hundred is bounded to the east by the River Flit (Page 1912, 336). At present there is insufficient evidence to suggest whether there was an agricultural preference for settlement based on the quality of land tillage since the balance of investigations across the county in clay upland sites to river valleys is disproportionate. The general trend from dispersed to nucleated settlement continued to be the norm, probably instigated by landlords as planned settlement, and was well established by the 9th–11th centuries along with open field agriculture centred upon these villages.

The Chalgrave Charter, issued in AD926 references the *Theodweg* (HER10843), a major trackway (Fowler 1919; Gurney 1920). *Theodweg,* or the Salt Way, was linked by the Icknield Way to salterns in the East Anglian fen. The route traverses the ridge to the south of Chalton, and at least part of it follows a bridle path from Lords Hill Cottage to Houghton Road.

Another charter, dating from AD966, describes the route as the southern boundary of an estate (and later the parish) of Linslade. Renamed *Theedway* the route was used to define parts of several other parish and township boundaries across the county, showing it to have been a prominent feature in Mercia before or during the 10th century. Its line was still the northern limit of Luton Borough. Many early Anglo-Saxon cemeteries have been found close to this route (Morris 1962), such as the 5th-century burials at Leagrave, close to Waulud's Bank (HER200). As this route passes through the scheme to the south of Site F as a modern bridleway, it was investigated as part of these works, although no evidence of a Saxon origin could be confirmed.

Also confirmed in charter were five hides in Chalgrave and Tebworth given in perpetuity to Thegn Ealdred, which had been bought from the Danes for ten pounds of gold and silver by the order of King Edward the Elder and his earl (Page 1912, 345). This effectively ransomed land from the Danelaw where the Danes had extended their territory to the west of the boundary assigned by the Treaty of Wedmore in AD878. It also compelled the king's thegns to invest their interests along the frontier and in so doing motivate them to secure the borders of Mercia. The Chalgrave estate boundaries are preserved in the parish boundaries today (Coleman 1981; 1986).

LOCALISED CHANGES IN THE MEDIEVAL PERIOD

Norman rule brought with it a new French-speaking aristocracy and changed the political landscape. A series of mottes were raised in the county, such as Conger Hill, Toddington, for the purpose of policing the Saxon peasantry. A few were later expanded with baileys, such as Chalgrave Castle, and these were in the main placed in the principal manors found in Domesday Book (Palmer 2018a, b). However, for the most part whilst governance changed, initially the settlement patterns and economic foci remained the same.

The motte and bailey at Chalgrave was later converted into a moated manor as part of a sequence of development based on an earlier Saxon foundation (Dyer 1961; Lewis *et al.* 1997), and similar to Tempsford (Maull and Chapman 2005). Medieval moated sites emerged during the 12th–13th centuries, often associated with dispersed settlement and irregular field systems. Some were moated manors and others came about by assarting and were not always settled. While moats are perceived as defensive, they were principally a status symbol that provided adequate fishponds and a means of water management (Coleman 1981; 1986). Despite their popularity, there were also a great many wealthy land holdings that were never enclosed in this way.

An arm of the Toddington manor stretched south-east to include Fancott and Chalton, which is geographically south-east of the River Flit and closest to the manor of Sundon in Flitton Hundred (Page 1912). During the early 13th century a manor was recorded at Chalton from which taxes were due to the lords of Toddington and followed the same descent until 1362. The Priory of Dunstable also acquired a considerable estate, including grants of land in Chalton from successive secular feudal overlords. From 1366 onwards Chalton follows a separate descent, perhaps incorporating different land. In the historic core of the village is a farmhouse that appears to occupy a former moated site.

A Saxon loomweight fragment and residual pottery were recovered from Site F during evaluation (Brown 2014b; 2015b). Later remains of the 12th century were found nearby within ditches, which were thought to form part of an enclosure associated with domestic settlement. The site lay well beyond the extent of the medieval village core at Chalton (HER16983), and was considered to be a smallholding or village end.

The various names of Thorn, Thornbury, Thorn Green, Thorn Farm and Thorn Spring all refer to settlement and occupation in close proximity, but appear to be geographically separate. Thorn itself was not recorded in 1086 and it probably lay within the wealthy royal manor of Houghton Regis, comprising some of the 50 households, worth seven geld units, which made up that manor. In addition to Houghton village the manor is typical of many large crown estates, in that it included the surrounding smaller hamlets of Puddlehill, Sewell, Thorn, Bidwell and Caldecote (Calcutt). Houghton Regis remained crown property until King Henry I granted it to Hugh de Gurney as one knight's fee within his barony. Henry I had also granted lands and rights of common to his priory in Dunstable and this gave rise to dispute between the ecclesiastic and secular lords, recorded in the Pipe Rolls and by various cases within the par, for generations thereafter. Mention is found 1324–1471 of a manor at Thornbury that followed the same descent as the main manor of Houghton, but there is no evidence of a separate manor at Sewell until the 16th century when the lords of Houghton hung their gallows there. The manor of Caldecote was the portion granted to the Priors of Dunstable by Henry I and later confirmed by King John. Neither Bidwell nor Puddlehill were separate manorial entities. Secular rural medieval buildings are rare, few survive, and these are usually attributed to manors and associated barns.

A moated site lies south of Thorn Road (HER147), marked by two ponds on an estate map from 1762. Later maps record this as The Bury, Bury Close or Bury Spinney. Documents from the 14th–15th centuries refer to the manor of Thornbury and to a chapel at Thornebury. Finds recovered in the 19th century included an arrowhead, a key and pottery that may well have been medieval.

A well-preserved moated site also exists at Thorn Spring (HER140) and is a Scheduled Monument (NHLE ID: 1013519; HE 2018a). It is thought to have been built in the 12th or early 13th century as a result of disputes between Dunstable Priory and the de Gurney family over lands in Houghton. The original Houghton Manor was demolished during an intense period of dispute in the early 13th century, and the de Gurneys built a new residence, perhaps at Thorn Spring, since Thornbury manor already existed. The moat has three straight sections enclosing an island 40m by 29m. A fourth section to the south-east curves outwards, forming an arc. Traces of an external bank survive along the outer edge on the north-eastern arm and around the north corner. The moat is thought to have held water derived from springs below but there are also two infilled leats which join the moat at the highest point in the circuit. On the island there are two raised platforms in the northern corners, indicating the positions of buildings. There may also have been a wall or palisade around the edge of the island, suggested by the presence of a bank. Access to the island would need to have been by a bridge, perhaps over the south-eastern arm of the moat. A probable wood bank lies *c.*90m south-east of the moat, which may have been an enclosure for coppice. There are two sections, the southern of which lies parallel to Thorn Road and is flanked by a ditch. A break in the bank may be the original entrance. Potential medieval earthworks also extend north-east of Thorn Spring (HER12269).

Medieval pottery sherds from cooking vessels were recovered from a ditch during trial trench evaluation to the north of the moated site (Burrow 2008b). A pit located *c.*450m south-west along the route, at NGR 499875 224806, also produced sherds of medieval pottery.

Calcutt Lodge is another possible moated site with medieval settlement, although geophysical survey only identified ridge and furrow cultivation within the area of the scheme (Simmonds and Fisher 2008). An estate map of 1762 shows a water-filled ditch or stream at Calcutt, enclosing an area of farm buildings. There are also three large ponds, possibly parts of a medieval moat (HER3395), two of these lay along the boundaries of enclosures to either side of the farm. Calcutt Green (HER12244) is shown to the south where aerial photography has identified several short linear earthworks. The map also records Bury Corner Green (HER12243) and Thorn Green (HER12242).

Many planned villages were set out around greens, some may have been new foundations and others the reorganisation of existing settlements. Thorn was previously called Thornbury, indicating a fortified enclosure, probably the moated site. A later name from 1889 is Thorn Green Farm at which time a dozen or more buildings surrounding said green, formed the village of Thorn on its north side. These communal open spaces were central to late medieval settlement morphology and although the 18th-century parliamentary Acts of Enclosure disposed of much of the common land, many survive today occupied by public amenities.

Medieval settlements dependent on arable farming were usually surrounded by open field cultivation. Ridge and furrow earthworks at Thorn are shown on RAF aerial photographs in 1945–55, but have since been ploughed flat. Ridge and furrow to the north of Houghton Regis (HER12263) also appears on aerial photography and is illustrated on a map of 1792 as headlands. Truncated cultivation remains were found near Bidwell (HER19927), to the north and east of Calcutt Lodge (HER19928) and north-east of Houghton Regis (AA 2012a; EBD1138; HER19929).

Villages are expected to have grown in size from their late Saxon origins and shrunk again with the economic fortunes of the medieval age. Agricultural recession is attributed in the 14th century to periods of famine, plague and protracted war with France. However, in many cases the desertion of former settlements was instituted by their landlords, most particularly with the rapid growth of the wool trade at the end of that century; sheep were more profitable than tenant farmers. The wool and cloth trade was primarily now being run by English merchants rather than by foreign buyers and by the 1360s three-quarters of the export trade was in English hands (Hodgett 2006). Cloth manufactured in England increasingly dominated European markets. In 1347 England exported almost no cloth at all, but by 1400 England had her own textile industry that was exporting 40,000 bolts per year (Blair and Nigel 2001). Despite the depression of the mid 15th century, export more than tripled by the 1540s. Consequently land clearances increased significantly over the 15th–16th centuries.

The two medieval sites (F and Q) represent a small part of the wider settlements to which they each belonged. Situated at either end of the scheme, they were also located in areas of the valley that were significantly different to each other in the 12th century in terms of layout. Each settlement belonged to a different manor within Manshead hundred, and like all medieval estates their respective histories differ greatly (Page 1912). The site at Chalton lay within a village end; a characteristic settlement form in Bedfordshire where small groups of houses and farmsteads cluster around separate greens and junctions that are dispersed within the same parish. Thorn, however, whilst it appears much like a series of dispersed settlements in the modern day, was originally situated around a large green. Much of the land on its north side was probably cleared and may have been enclosed in the medieval period by a process known as assarting, common in the wooded areas of the county.

EVIDENCE FROM MAPS AND AERIAL PHOTOGRAPHS

The manor at Chalton belonged to the lords of Toddington in the 13th–14th centuries and represents the southernmost extent of the parish where the clay hills roll south to meet the chalk. This settlement lay at the very edge of their demesne and occupies a prominent location at the head of the Flit Valley where the modern village sits below the steep valley side.

Chalton Upper End is shown on the map of 1797 and was a small outlying settlement on the south-east side of the village that occupied the steeper ground (Fig 7.68; BRO MA1/1-2). The map depicts two distinct parts of roughly equal size. The surviving part is now occupied by the modern village and focused around a small green on the high street. The other part lay to the south-east and is no longer settled apart from an enclosure called Tythe Bank Close, which is now called Hillcrest. Excavations at Site F lay within the two enclosures adjacent to this called Tythe Yard and Bushy Yonge. They formed a southern group of enclosures or 'closes' that lay either side of a fork in the road (Luton Road). Upper End is a name derived from the most central of these enclosures, to the north of the road, and altogether there were roughly 14 of these with their orientation focused at the junction.

Fig 7.68 The pre-enclosure map of Toddington, dated 1797 (BRO MA1/1-2)

Fig 7.69 The pre-enclosure map of Thorn, dated 1796 (BRO B553)

By comparison Thorn is situated on the lowland chalk valley, seated upon a low rise terrace roughly 1.0m above the flood plain. The 1796 map of the Estate of Bedford (BRO B553) depicts a whole series of pre-parliamentary enclosures (Fig 7.69). Central to the layout of Thorn was an extensive common, over 1km in length, divided into three main parts called Little Thorn Green, Great Thorn Green (marked as Cow Common) and Bury Corner Green, and with smaller units appended onto it to the west alongside Thorn Road up to where it joined the Watling Street turnpike and to the east where it met the main road between Toddington and Houghton Regis.

A smaller road also extended to the north-west of Thorn to the turnpike that survived until recently as a modern farm track and was observed during the targeted watching brief where two modern ditches lay either side of linear modern disturbance. Either side of this was a further narrow strip of common, the bounds of which survive as a cropmark on aerial images of the scheme (Fig 1.6).

Central to the green, between Great Thorn Green and Bury Corner Green, was a possible late medieval insertion that divides the larger extent. At this point on the north side of the road there were three large enclosures, two of which were sub-rectangular. The third lay on their west side and had a narrow part at the northern end among the other narrow enclosures fronting the green. In this case it may have been extended south to encroach onto the green and within lay Thorn Spring, one of two moated sites at Thorn (HER140). On the south side of the road lay two more sub-rectangular enclosures and one of these contained the other moated site (HER147). A roughly square enclosure in the area occupied by the modern farm also stands out on the map where it had an L-shaped enclosure around the north-west side, suggesting that it too had a slightly unusual late medieval origin.

There were perhaps as many as thirty narrow enclosures, including sub-enclosures and larger areas, all arranged side by side and orientated north–south fronting onto the green to the south. Site Q lay across two of these enclosures and parts of those on either side. The historic estate map also depicts accurately the original sinuous line of the boundary observed in excavation that was later shown as a straight boundary by the Ordnance Survey (Figs 7.69 and 7.26). RAF photographic images from September 1947, 5045/6, in the HER show a few of the enclosures before they were completely lost. The narrow strips of enclosure appear to have been among the oldest of the land parcels fronting the north side of the green; they may be medieval on the basis that there were later alterations to their layout that appear to be associated with the construction of the moated sites. A likely origin for their early occurrence may well have been the practice of assarting, clearing woodland and enclosing the ground for arable use (S Coleman pers comm). The practice was quite common in the Whittlewood area of Northamptonshire and Buckinghamshire from *c.*1200 up until the Black Death, 1348–49 (Jones and Page 2006, 118). Woodland was cleared by the 12th century, as this is when the building was constructed at Site Q. However, the medieval boundary ditches did not clearly match those on later maps. Ditches of the mapped enclosure were filled in the 20th century. Consequently it appears that the narrow enclosures were a late medieval or post-medieval development appended onto the north side of the green and behind the late medieval manorial sites.

THE MEDIEVAL OPEN FIELDS

A prominent observation of the overall watching brief was the relatively low occurrence of ridge and furrow cultivation. There was an extensive area that was recorded in plan during the detailed excavations at Sites D, G and M on the west side of Thorn. The extent of this cultivation corresponds with the extent of Thorn Tomp, as recorded on the Estate map of 1796 (BRO B553; Fig 7.69). The furrows did not extend eastward along the route to the north of Thorn where the possible assart enclosures are mapped. Other furrows were noted as the only archaeological features to the east of Site L (an undated palaeochannel) in an area of ground mapped as Lower Ten Acres.

Charred wheat was intrusive to several samples taken from underlying Iron Age features at Site G and produced radiocarbon dates in the period of the late 11th–early 13th centuries. This is an apparently late period of arable use for open field agriculture, which is generally considered to become prevalent from the late Saxon period onwards (Hall 1995). Study of the distribution of open fields across 80% of Northamptonshire found a single instance of a deserted settlement in the 10th–11th centuries from Hardwick, Oundle. All other occupational evidence was associated with the location of present day settlements, indicating that the pattern of settlement recorded by the Domesday Survey largely reflected the late Saxon pattern (Palmer 2018a, b). At Raunds, Northamptonshire, open field agriculture overlay sites of middle Saxon date suggesting it post-dated the 9th century (Parry 2006). At Thorn, however, the limited extent of ridge and furrow cultivation in use from the late 11th century compares well with the peak period of woodland clearance when the grain markets were driving the demand to take more land under the plough (Jones and Page 2006, 132, 138–140). However, its sudden cut off in the early 13th century appears odd and may be the product of historically recorded changes in land tenure between the de Gurney family and the Priory of Dunstable, which would have resulted in differing methods of land management.

Furrows were recorded at Site J, immediately to the south of Chalton and north of the modern parish boundary with Houghton Regis. Assuming each settlement had extensive open field land, it is likely that the open fields belonging to each settlement met at the parish boundary. Large areas of land to the south of Ouzel Brook were once covered by ridge and furrow, although much of it has been ploughed flat. A patchwork of small open fields interspersed with occasional private closes, wooded coppice and common land might also be found. It is therefore of note that the area of closes occupied by Site F were never under plough, and this strongly suggests that it was part of the settlement when they were established.

THE 12TH-CENTURY BUILDINGS

A search of the sites recorded by the Bedfordshire HER indicated that there are no confirmed examples of 12th-century buildings outside of towns or villages that have been archaeologically excavated in the county. Possible buildings are mentioned in an assessment UPD for land south of Stotfold (Keir and Starke 2011). This work has yet to reach completion. A rectangular building (AG36), *c.*17m by 4m, was defined by both sill beam gullies and postholes. A central line of postholes and a gully were aligned with the two long sides, perhaps indicating a ridge beam structure. Another building (AG38) marked by postholes was 6.6m by 5.5m in size, cut by a late medieval ditch. Nearby activity may have been craft related, including a possible kiln or oven. Pottery finds were mainly late Saxon and Saxo-Norman, with some later pits including one with a cut half penny from 1247–1272, suggesting the activity may have continued into the 13th century.

This is not an uncommon situation as most post-Conquest settlement evidence lies within the historic core of modern settlements, or where the extent of an abandoned settlement site is known, these are often Scheduled Monuments. Consequently the opportunity to examine the material evidence for medieval rural buildings is often limited.

Neither Site F or Q are identifiable with any recorded sites in the Domesday Book. Pottery has received significant study in recent years so that existing typologies provide a framework for dating that allows distinctions between the beginning of the 12th century and pottery produced after the middle of that century. There are still some difficulties with the pottery for markets in the 13th–14th centuries, as the range over which some of these industries continue production is quite long, a mark of their success. However, neither site continued to be occupied significantly beyond the early 13th century at its latest.

Building FS6 had internal measurements of *c.*12m by 4m within the interior of the chalk walls (Fig 7.43), and was the smallest of the likely barns or dwellings. Building QS1 was roughly 18m by 4m (Fig 7.18), almost the same size as that at Stotfold, and is the second largest building. The additional room or side building was 9.5m by 4m in size. Building FS5 was by far the largest at 26m by 8m (Fig 7.39), almost twice the width of all other examples and almost half as long again. None of the buildings produced firm evidence for their function. Although domestic waste was found in the ditches and pits nearby, this material need not have been from the buildings. There were no internal features to corroborate them being inhabited. A possible hearth, F[340], in the corner of Building FS6 could have been used for craft or domestic processes.

Timber-framed buildings immediately following on from the Conquest are likely to have been constructed in much the same way as their Saxon forebears. No detailed typology for Anglo-Saxon or later timber buildings exists in England, unlike in Scandinavia, Germany and the Netherlands where it follows the development of the longhouse (Hamerow 2002, 46). Only a tiny number of buildings are well-dated and many of the buildings are considered to be hybrid forms incorporating continental styles. Many Anglo-Saxon structures are largely undated timber-framed buildings and the proximity of pottery and animal bone is often attributed to their domestic occupation.

The development of timber-framed Anglo-Saxon buildings is summarised below, based on discussion by Hamerow (2002). Buildings of the 5th century are usually less that 12m in length, aligned east–west, and built using individual postholes. Roughly 25% of 5th-century buildings exhibit an internal partition at the eastern end. Structures erected in the 6th century tend to have greater dimensions, with more variation and experimentation but remain on the same alignment. Foundation trenches (sill beams) were introduced in some late 6th and early 7th-century structures and by the 7th century roughly half of buildings used them, and one third of buildings were orientated north–south. Foundation trenches were used in 75% of buildings from the 8th–9th centuries. Contemporary hearths are rarely identified in Anglo-Saxon buildings (*ibid,* 47). On this basis there is a good correlation in the general form and structure of the 12th-century timber frames from site, which follow a natural development in construction technique already employed across England and northern Europe. Dimensions compare favourably with examples in Germany and the Netherlands (*ibid,* fig 2.22). However, the layout of posts and positioning of doorways differ greatly across all seven contemporary comparison structures and in respect of the positioning of internal posts or partitions. The only clear continuity is in the preference for doorway access along the long sides of buildings, as with phase 2 of building QS1.

The earliest examples from Long Buckby, Northamptonshire, are likely to have been late 12th century. Two small rectangular buildings were laid out using a combination of beam slots and postholes that were 5m by 3.5m and 7m by 3.5m in extent and may have stood during the early 13th century. Two further buildings were later in date, being constructed in the mid/late 13th–14th centuries, and these were larger, measuring 11m by 6m and 10m by 5m. Other comparable examples of this type came from Lyveden (Steane and Bryant 1975), Benefield (Finn 2017) and West Cotton (Chapman 2010). In the latter instance late Saxon timber structures were rebuilt in stone during the 12th century and maintained thereafter, which were 9.6m by 5.5m in size. Later period examples seemed to have wider construction; Dyer (1986) recorded 13th-century buildings of 7.6–15.2m long and 3.7–4.9m wide.

There are some good comparisons with the buildings excavated at Stotfold and the sites in Northamptonshire in terms of the range and types of features that formed the layout of the buildings. The combination of gullies and postholes of building FS5 is attributed to the combined use of a timber frame with some probable cob or wattle/daub walls founded on wooden sill beams and set into gully slots. At least one wall of building QS1 also had a sill beam. However, building FS6 with the chalk wall foundation is quite unlike any of these and suggests an attempt to construct more durable load bearing walls, since there was no substantial evidence for a timber frame. Two internal post-pits may have been roof supports, but they were not situated equidistant from the gable ends.

Buildings are assessed in late medieval court agreements by the number of crucks that hold the frame, and the cruck is provided by the lord to offset the costs (Field 1965, 109). Although there were no crucks in the buildings from site, the number of possible bays derived from dimensions is helpful. Field's analysis of 113 timber-framed buildings in Worcestershire records defined them in terms of the number of probable bays on the basis that one bay was roughly 4.6m wide, and less than 2% of buildings were this small. The vast majority (84%) were either two or three bays long (*c.*9–14m). This was the typical size of a peasant house throughout the Middle Ages (Dyer 1986, 35). The second phase of Building QS1 and the example from Stotfold would have been of four bays, whilst Building FS5 would have had five bays, making them quite rare.

Analysis of the features and the stratigraphic layout of the structures identified a development sequence for both post-built buildings. The structure of QS1 was divided into two phases of development with a relatively short period of use overall and several fairly major alterations in the movement and creation of doorways, including also the addition of a side building or extension. This may suggest an unstable structure or simply the need for rapid expansion and modification.

A study of the artefact distributions within each building was unable to contribute to this, as the only significantly-sized assemblage in relation to the buildings was the roof tile concentrated near building FS6. It is therefore uncertain what purpose the buildings served, although an association with horse-related artefacts has been noted with features surrounding building FS5. Given its unusually large size and the large 5m-wide doorway on the east-facing long side in association with a cobbled yard surface, it is suggested the building might have been used as a stable. Building FS6, given the attempts to provide it with a more solid and perhaps permanent structure, could have been either a cottage or a workshop. Firm evidence for any of these interpretations is lacking, but on the basis of other examples in the region, the occurrence of firm corroborative evidence for function is rare across all periods and is substantially down to the quality of preservation.

Review of project objectives

Middle Saxon

This publication discusses the inhumation cemetery of the conversion period in the 7th century at Site H. The cemetery is relatively small but the graves conformed to a trend that retained pre-Christian characteristics in terms of grave goods. There are few examples of middle Saxon cemeteries in the county with which they can be compared. Attempts have been made to raise the contextual detail and spatial recording to match that of the Roman evidence, but the quality of the skeletal remains means their contribution to demographic population studies is limited, and there is no settlement evidence with which to set the cemetery in context. However, the site produced an interesting array of artefacts; some, such as the workbox, are quite rare. This site can therefore be added to the general corpus of data for artefacts and burials of this type to provide comparisons for other work in the region.

Late Saxon and medieval

The range of medieval settlement types is far more extensive than is currently represented by archaeological investigations and this report provides the results of investigations into parts of a possible village end at Chalton, Site F, and an assart settlement at Thorn, Site Q, neither of which occur in local published literature. Both sites were closely dated owing to the tight range in which certain pottery fabrics were produced and traded, and unexpectedly both sites were in use for a short period from the late 11th–12th

centuries before they were given over to open ground. This is significant for medieval settlement studies of the 'deserted village' phenomenon, and is probably explained by changes in local landholding and differing approaches to land use in the period. Both sites would benefit from an in depth documentary study to encompass the whole of their respective manors, but such work would be a major undertaking. It is likely that in the context of the historic sources and changing manorial tenure many archaeological observations may become more explicable and could be predicted elsewhere within the settlement patterns.

The extent and orientation of ridge and furrow cultivation was mapped where noted during the stripping of sites and is of value since it is poorly preserved across the county (Oake 2007, 14), and often cannot be reliably interpreted from 18th-century maps. Knowing the extent of the open fields around a settlement is also a great accessory to understanding settlement morphology and unravelling development during different periods of manorial tenure.

Post-medieval and modern

Permanent archival records of post-medieval and modern landscape features are included on the accompanying digital content package. This includes a crossing point of the Ouzel Brook and a post-medieval trackway on the route of *Theodweg.*

Chapter 8

A LATE MEDIEVAL POTTERS' WASTE DUMP NEAR NUPPINGS GREEN, NORTH OF TODDINGTON

SUMMARY OF THE MEDIEVAL AND POST-MEDIEVAL CHRONOLOGY

Investigations at the M1B and M1C sites found a medieval potters' working area, dated to the 12th–13th centuries on the south-facing side of the valley (Site M1C). This chapter is based on the Stage 2 analysis report on the investigation of Sites M1B–C (Brown 2011).

The site of M1C broadly corresponded with the location of Nuppings Green, an enclosed village green (HER12106) which lay to the east of Long Lane (Fig 8.1). Occupation of the site was previously suggested by pottery from cooking and storage vessels, together with brick and tile that were recovered during fieldwalking nearby, and interpreted as a manuring scatter (E40, E803; BCAS 1993). This was tested by trial trench evaluations (Walker 2011), but the concentration of medieval deposits was not identified until the area was topsoil stripped immediately prior to construction (Fig 1.20). As well as the medieval potters' working area, investigations also revealed that the site was occupied in the post-medieval period, when two buildings stood on the site from the early 18th century. This post-medieval settlement was abandoned before the late 19th century.

On the east side of the M1 motorway (Site M1B) burnt material within two ditches included pottery of the 12th century and a dump of cereal grain from a late stage in crop processing. Furrows from the medieval

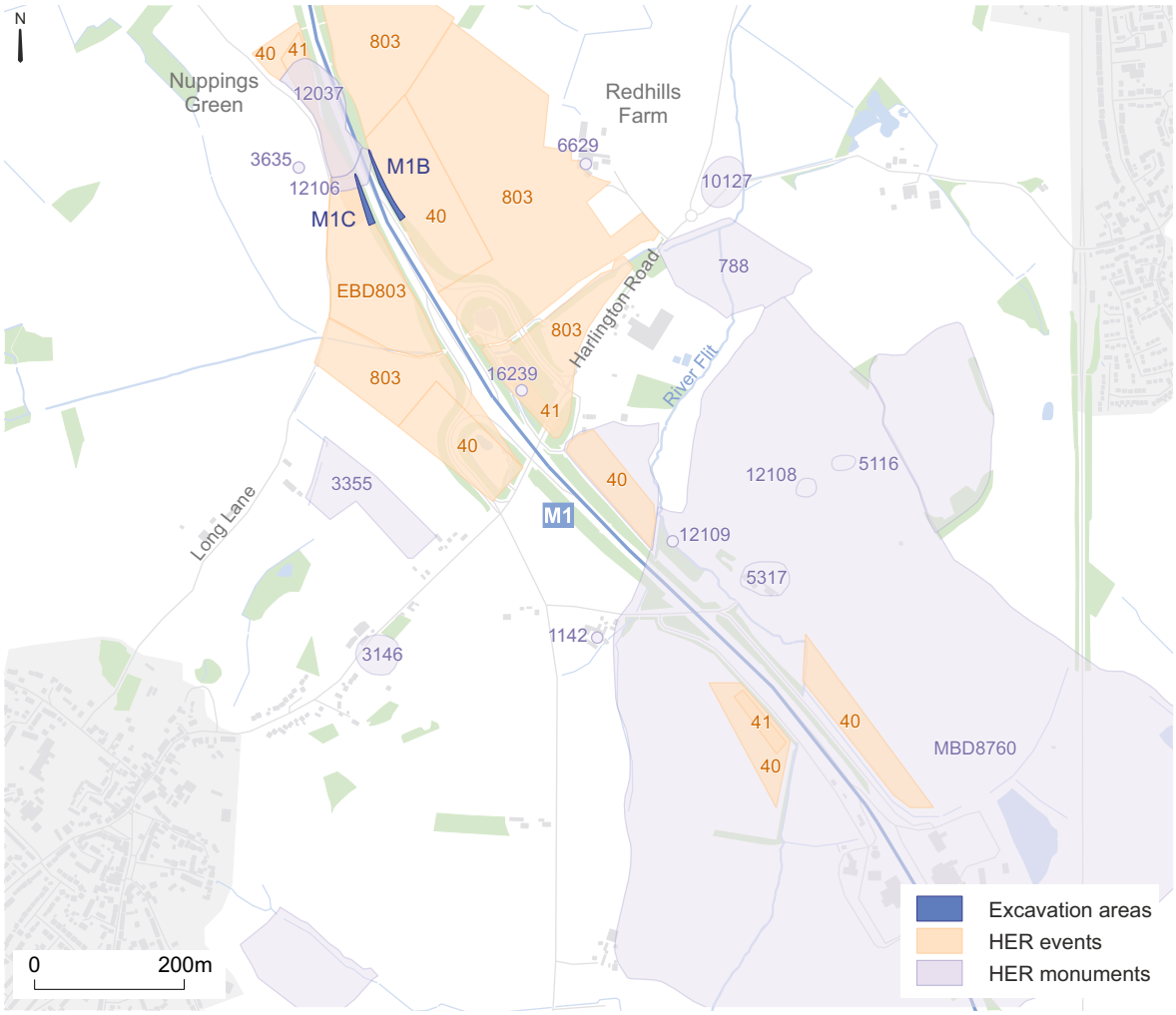


Fig 8.1 Locations of medieval sites and HER records, M1 Junction 12

open fields were identified in and around the scheme but their relationship to Nuppings Green is not known.

The sites comprised arable fields at the top of and to either side of the M1 motorway cutting (NGR TL 01600 30540). They lay on a south-facing slope along a natural ridge of Anglian till that overlooks a tributary of the River Flit at *c*.103m above Ordnance Datum (Fig 8.1). Site M1B lay on the east side of the motorway and was a long thin strip, 1,471sqm in area, whilst Site M1C lay to the west and was 996sqm in area. Neither site had been the subject of geophysical survey during the M1 Stage 3 assessment (BCAS 1995), but fieldwalking was undertaken and had encountered a scatter of pottery and tile.

At Site M1C a large spread deposit represented the flattened remains of a pottery midden which would have been formed as a bank, probably created alongside a potters' workshop (Fig 8.2). A large buried vessel was probably used as a water cistern. The pottery indicated production in the 12th–13th centuries. During the 14th century it was abandoned and then levelled in the 15th century. To the east of the M1 motorway, at Site M1B, two boundary ditches accumulated pottery sherds within their fill at around the same time as the pottery production.

Following the flattening of the pot midden in the 15th century, a cob wall was constructed across the top of the spread. It may have been a yard boundary. Building 1 was constructed on its north side before it was demolished by the mid 17th century. Building 2, a probable domestic structure with a stone back-to-back fireplace, replaced the earlier structure from the late 18th century onwards. This building does not appear on 19th-century maps and is likely to have been demolished before the 1882 Ordnance Survey.

VARIATIONS IN METHODOLOGY

Sites M1B and M1C were plotted and marked out with coloured pegs by CCJV engineers using their own survey grade GPS system in order to ensure the correct locations for the widening of the M1 motorway cutting (Fig 8.1).

The areas were stripped following the usual methodology. However, the quantity of artefacts, mainly pottery, in the surface horizons of Site M1C indicated an extensive flattened midden as well as the remains of two successive buildings. The spread lay over a wide area so an appropriate sampling strategy was required to determine its significance and to identify/understand the character of any structured deposition present within the site. The site was subsequently investigated using an updated sampling methodology (URS 2011), comprising the excavation of alternating 1.0m squares, which was considered more effective in retrieving data on the artefact distribution and understanding the process of the deposition (Fig 8.3).

MEDIEVAL POTTERS' WORKING AREA AT SITE M1C

A POTTERS' WATER CISTERN

A single pit lay at the base of the archaeological sequence (Fig 8.4). It contained a large vessel of the 12th to 13th centuries made from Hertfordshire-type greyware, and similar to the pottery in the overlying deposits.

The pit was roughly circular and had been cut in a manner just large enough to fit the pot inside, whole.

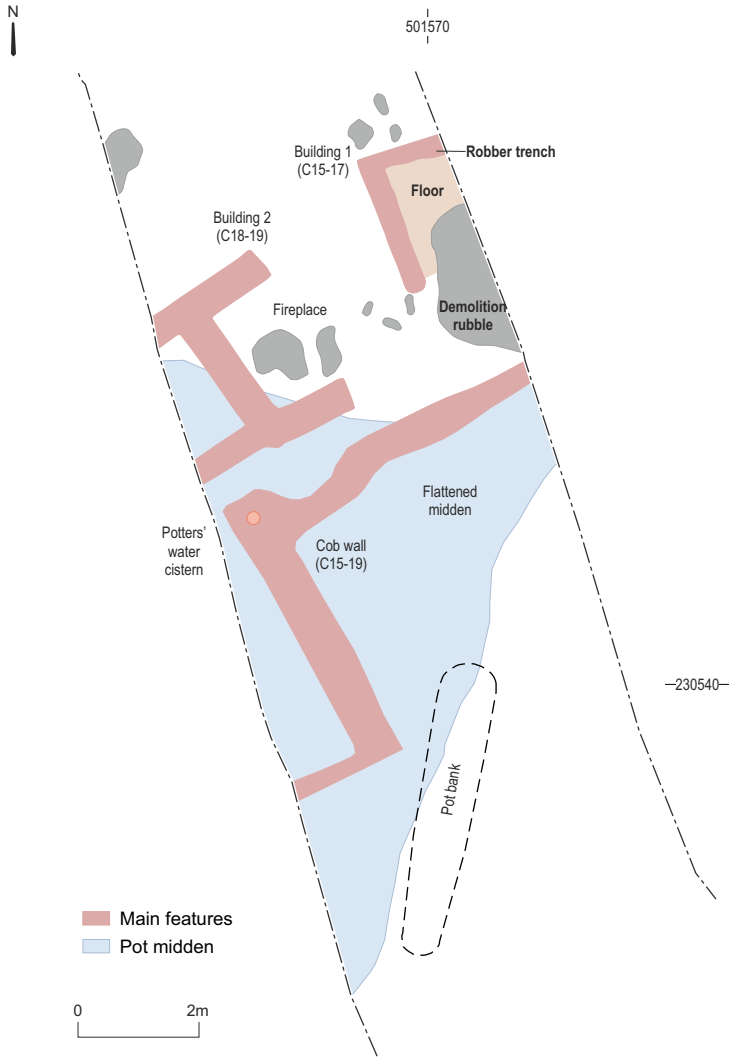


Fig 8.2 Plan of the medieval and post-medieval features, Site M1C

Fig 8.3 Excavation of the flattened midden deposits, Site M1C

Fig 8.4 Excavation of the cistern, pit M1C[7161]

The pit was 0.5m in diameter and 0.32m deep. The base was flat and formed a level surface for the pot, whilst the sides mirrored the profile of the pot up to its widest point and then became vertical, allowing the pot to nestle within the earth without room for movement. Firm dark red-brown silty clay was packed around the upper edge of the pot and it is suggested that the vessel was buried for use as a cistern (P Blinkhorn pers comm). Similar pots have been found within stone-lined pits at Lyveden, Northamptonshire, also in association with a potters' working area (Steane and Bryant 1975, 14–15). There were no residues or signs of abrasion, liming, heating or caustic damage of the pot indicating other craft or industrial uses. The later fill of the pot was dark grey-brown silty clay with charcoal flecks, and was similar to the bulk of the surrounding deposit. The pot was lifted complete, necessitating overcutting the original pit (Fig 8.4).

A POT BANK

Above and around the cistern was a layer of firm dark grey-brown silty clay stained black with charcoal and soot, lightly flecked with chalk, and with scattered small stones. The pot bank had built up gradually with the accumulation of a substantial quantity of pottery, comprising 10,581 sherds (*c.*58kg), before being flattened (Fig 8.5). The original dimensions of the pot bank are not known owing to its later redeposition. The spread covered an area *c.*11m by 6m, up to 0.35m thick, and angled slightly north-west to south-east. The spread was sampled using a 1.0m grid and finds retrieved by grid square in an attempt to identify the depositional composition of the midden. The whole spread was of undifferentiated soil types as the deposit had been mixed when the midden was flattened. However, the distribution of pottery was examined by sherd weight and a concentration was determined (see Blinkhorn, this chapter). Sherd weight was used because larger sherds, which weigh more, are less likely to have been broken through redeposition, whilst redeposited sherds are likely to be smaller and might be more heavily fragmented. The heavier portion of the assemblage, where grid squares produced over 1kg of pottery sherds, lay across the grid from north-east to south-west, an area no more than ten grids long and less than two grids wide. This is indicated on Figure 8.2 as the probable extent at the base of the pottery bank. The wider extent of the spread produced less bulky material within a secondary concentration, where grid squares on the north-west side of the pot bank and overlying the cistern produced over 500–1,000g of pottery sherds.

Fig 8.5 Extent and thickness of medieval pottery bank, Site M1C

The pottery assemblage comprised largely wasters in a heavily sand tempered fabric similar to the Hertfordshire-type greywares of the 12th–13th centuries. Although the pottery may also derive from the 14th century, this tradition had largely drawn to a close by *c*.AD1350 (P Blinkhorn pers comm). The dominance in the production of particular jar and bowl forms suggests that the potter produced the bulk of his goods to serve a specific part of the domestic and utilitarian market.

During the process of flattening the pot bank, this material acquired fragments from the base of a Cistercian ware cup of mid 15th-century date and a 13th to mid 14th-century sherd in Mill Green ware from a jug, coated with a copper speckled glaze (Blinkhorn 2012b, 46). The only closely dateable finds from within the pot bank are two sherds of abraded London ware, one with a style of decoration typical of the late 12th to early 13th centuries.

Bulk soil samples produced mainly weed seeds with few cereal grains. Charcoal and charred wood were predominant suggesting regular burning of wood fuel with the residue dumped upon the pot bank. Animal bone was relatively low in quantity as this was not primarily a domestic midden.

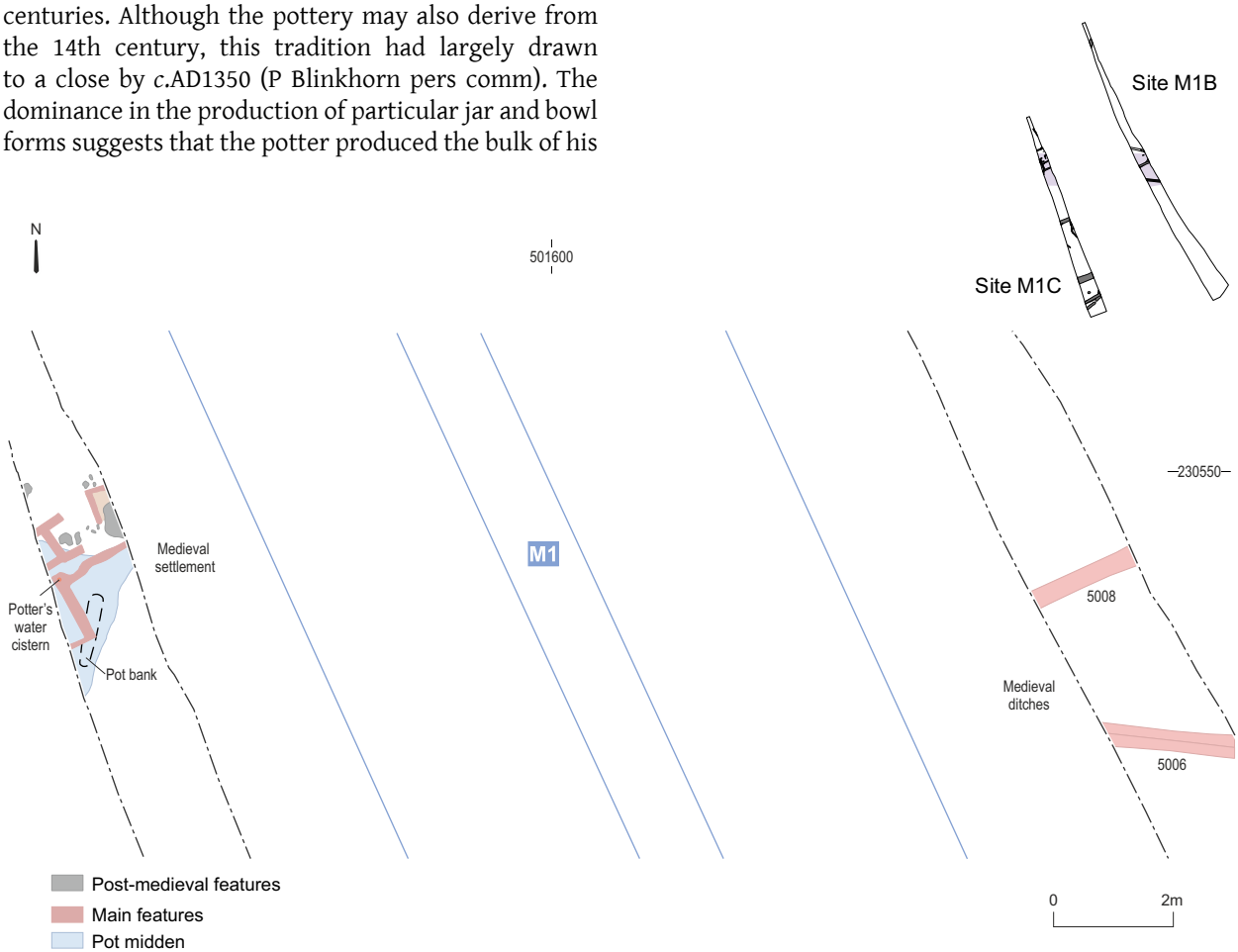


Fig 8.6 Medieval feature layout to either side of the M1 motorway, Sites M1B–C

Overall, the evidence for a potters' working area was good, although without the kiln itself being identified. The burnt material in the pot bank probably derived from a small domestic fire, although it may conceivably comprise kiln fuel debris. It is likely that the kiln was located outside the excavated area but close to both the pot bank and the cistern, such as those at Lyveden, Northamptonshire (Steane and Bryant 1975, 14–15). A post-medieval pottery scatter was identified during fieldwalking to the north of Site M1C (Mudd 2006a-b, fig 9), but the pot bank and the vicinity of the kiln waste were not identified at that time. The area did not form part of the earlier geophysical surveys so it is not possible to tell whether a kiln lies to the west of the excavated area or whether it was lost to the construction of the motorway in 1958–9.

Medieval ditches at Site M1B

Two boundary ditches on the east side of the motorway produced small quantities of pottery, roughly datable to the 12th century (Fig 8.6). Coarse sand tempered wares were found together with the more ubiquitous shelly coarseware.

Ditch M1B[5006] was aligned west to east, *c*.1.0m wide by 0.32m deep with sloping sides; the fill comprised firm mottled grey brown and russet silty clay with charcoal flecks. A recut lay on the same alignment that had a V-shaped profile, 0.54m deep. The fill was firm dark grey-black silty clay loam with charcoal flecks and burnt stones and contained a dump of material from cereal processing nearby. Pottery sherds suggested it had derived from a midden of mixed waste.

A larger ditch, M1B[5008], slightly to the north and aligned north-east to south-west, had a V-shaped profile, 1.88m wide by 0.84m deep. Similar fill materials, comprising firm dark grey-brown silty clay loam with russet coloured flecks, were accompanied by pottery that indicated it was filled with material from a similar source. The two ditches probably joined to the west of the excavated area before being lost to the motorway in 1958–9.

Post-medieval buildings and a cob wall at Site M1C

Building 1, 15th-17th centuries

A robbed-out wall footing, 0.32m wide by 0.14m deep, cut the natural clay at Site M1C. It extended from the limit of excavation by 1.4m before turning south for a further 2.4m (Fig 8.2).

Within the building footprint and overlying the natural clay was a floor comprising hard compacted orange grey and brown clay, 0.05m thick (Fig 8.7). Above the clay layer was a coarse compact stone surface, 0.05m thick, which comprised mixed flint and stone gravel. The hard-wearing surface indicates that this was probably a building intended for heavy use. No floor tiles were recovered from the excavations.

Demolition rubble partially overlay the floor levels. The rubble comprised a layer of crushed and fragmented stone and sand, around 160mm thick, along with brick, roof tile and pottery. The pottery was largely residual medieval material; however, several of the handmade bricks were distinctive enough to establish a broadly post-medieval date between the 15th–17th centuries. Above the rubble was a layer of loose grey-brown sandy clay loam, 0.14m thick, containing a copper-alloy buckle of mid 17th-century date, more residual pottery, and occasional brick fragments indicating that the shell of the former building became a place for dumping refuse before it was eventually demolished and ploughed over.

Cob wall, 15th–19th centuries

On the south side of Building 1 lay a perimeter wall marking the southern boundary of the post-medieval settlement (Fig 8.2). The wall was aligned east to west with an abrupt dog-leg along its route. Little remained of the wall since it had been constructed using cob or similar material formed of a mixture of clay, straw and dung. Such materials survive poorly within the archaeological record. However, the clay foundation

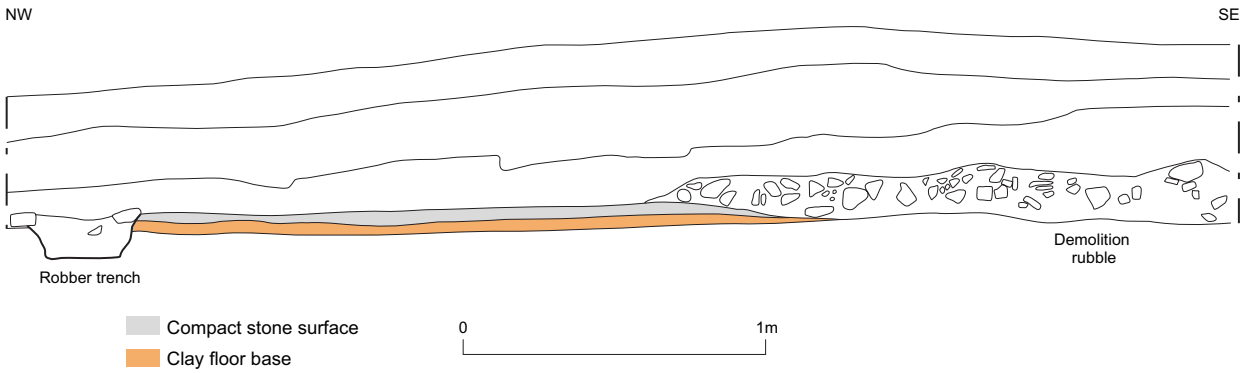


Fig 8.7 Sectional view of Building 1, at east edge of excavation, Site M1C

Fig 8.8 Cob wall foundation cutting across the flattened midden, Site M1C

Fig 8.9 The foundation of an back-to-back fireplace, Building 2, Site M1C

was identified, clearly cutting across earlier medieval deposits, including the flattened midden (Fig 8.8).

The cob wall foundation trench was 0.6m wide by up to 0.20m deep with near vertical sides and a flat base. The foundation was compact mid grey clay with chalky flecks and contained no finds, which is to be expected since it is less likely for finds to become incorporated into the mixture at the time of construction than later in the building's occupation.

BUILDING 2, 18TH–19TH CENTURIES

A more substantial building replaced the earlier structure in the late 17th century or soon thereafter. However, the only surviving element of Building 2 was the stone and brick fireplace, so it is likely that the rest of the building was timber-framed with brick nogging and cob (Fig 8.2).

The fireplace comprised two large back-to-back openings forming an H-plan, 3.2m wide externally, 1.9m wide internally, with the depth of the recess being 1.2m. The fabric of the excavated fireplace included sandstone, fractured limestone blocks and fragments, flint nodules, chalk, ironstone blocks, re-used brick, and tile. None of the building materials were larger than 296x185x65mm, closely packed together and loosely bonded with a chalky sand mortar (Fig 8.9). This material was gathered from a range of available sources, strongly suggesting a dwelling that was probably built with the assistance of the local community and family members using found resources rather than as a planned building as part of a manor or estate. One of the re-used bricks in the fireplace showed signs of having possibly been machine made, so it may be possible that the fireplace was a 19th-century insertion into a late 18th-century cottage, although this would be a large fireplace for this period. Regardless, both cottage and fireplace are significantly later than Building 1.

Building 2 cut through the earlier pot bank and was founded upon the natural clay (Fig 8.9). Within the aperture of the fireplace, on its east side only, the natural was overlain by a compact orange-brown clay floor, 0.10m thick, which had been baked hard, showing a red pink tinge close to the surface that is indicative of heat transfer and indirect scorching. The floor of the dwelling had not survived and only the underlying clay base layer was present, suggesting the tiles had been salvaged before abandonment. There were no postholes to indicate an earthfast timber frame or the extent of the rest of the building.

AGRICULTURAL EVIDENCE

Furrows were recorded to the south and east of Nuppings Green. They were found at Site M1A and within two of the targeted watching brief areas (Fig 1.2; TWB2 and HSR). None were found close to the medieval and post-medieval site, and as no geophysical survey took place across Sites M1B–C it is not known how they relate to the open fields. The identification of ditches at Site M1B suggests that some form of early enclosure may have been adjacent to the settlement.

The Historic Environment Record notes ridge and furrow within the vicinity (Fig 8.1; HER3355). Aerial photos (not reproduced) also showed the alignments

of ridge and furrow cultivation across Site M1A (OS/74172, July 1974, frames 115–116). For the most part, the ridge and furrow alignments were identical to the allotments depicted on Ralph Agas's map of 1581 (BARS X1.102I/D). This landscape can be seen on images of April 1973 (OS/73060, frame 363) and July 1974 (OS/74172, frames 115–116) (neither not reproduced). Ridge and furrow was also visible on aerial images at Wadlowes Manor (HER788; RAF/58/4646, Aug 1961, frame 175) (not reproduced). The open fields appear to have continued to be farmed in much the same way from their first laying out, utilising the medieval strips for the allotments of named individuals in later years.

Fieldwork on the M1 Junction 12 sites included recording of a historic hedgerow, west of Site M1A, which is mapped as a boundary between two open fields from 1581, and was subsequently incorporated into the parliamentary enclosures. The work provided an accurate measured record of the surface and detail of the historic hedgerow bank and ditch (Brown 2011), and confirmed that no cut features predated the parliamentary enclosure of 1797.

Specialist studies

Roof tile

by Pat Chapman

There are 46 small roof tile sherds (2.9kg). Thirty-seven are from the spread of the pot bank and nine came from the wall of Building 2. The fabrics are hard sandy clay, brown to orange brown and red to red-brown. Some are grey with a slightly vitrified, partially white surface and a few are bloated to almost twice their original thickness from over exposure to high temperatures.

The tiles are typically 12–15mm thick. Four sherds have a peghole: one square, three circular. A few of the hard brown and grey vitrified tiles have been punctured by a pointed implement, *c.*2mm in diameter. Five sherds retain white lime mortar on one or more surfaces, indicating that they had been used on a roof. Other tiles could have been used in a kiln as part of the structure or as spacers, since over one third have been overfired, some to extremes, and then reused in the wall of Building 2 as patching.

Brick

by Pat Chapman

There is one complete brick and 16 fragments (5.8kg). Fifteen are handmade to various levels of quality using hard clayey sand fired to orange or red-brown, with or without a grey core. The complete brick from the demolition of Building 1 is 215x105x34mm (8½x4⅛x1in); the dimensions of four bricks from the same layer are similar, but all the bricks are thin, 30–36mm (1⅛–1⅜in). Another brick is made from dense sandy bright orange clay and is slightly thicker than the rest, at 48mm (1⅞in). A brick fragment from the wall foundation of Building 2 is made from a dense coarse red brown fabric, possibly machine made. These bricks date from the 16th–19th centuries.

The bricks may be from wall foundations, but since only rubble walls were excavated brick formed only part of the material in use, rather than earthfast foundation material in its entirety. Bricks may have been used as nogging, forming thin curtain walls between timber beams. Use as flooring is less likely as there is no sign of wear.

A small fragment of modern black brick (69g) with a finely dimpled surface comes from surface layers and is of the early 20th century.

Fired clay

by Pat Chapman

There are 25 fired clay fragments (311g), typically small with a few exceptions. The majority of the fragments reflect the distribution of the pottery sherds within the medieval pot bank. A few fragments could be from bricks found amongst the medieval building layers, being made from the same hard orange-brown or red-brown clayey sand.

Medieval pottery

by Paul Blinkhorn

The pottery assemblage comprised 10,632 sherds (64,147g). The estimated vessel equivalent (EVE) by summation of surviving rim sherd circumference was 36.07. The bulk of the assemblage comprised kiln waste of the Hertfordshire-type greyware tradition, and is provisionally dated to the early/mid 13th century.

Non-kiln material

The kiln waste aside, all the pottery was processed and recorded using the Bedfordshire County Types Series (Table 8.1; Baker and Hassall 1977).

Kiln waste

The kiln waste has been given temporary codes of F300 for the predominantly reduced sherds and F301 for those which are mainly oxidized. The assemblage included a complete, non-waster jar in a similar fabric which had been sunk into the ground and probably used as a cistern (5.408kg, EVE 0.90). The fabric of the wasters is primarily heavily sand tempered, with moderate to dense sub-angular to sub-rounded clear, red-yellow-brown and black quartz up to 0.5mm, with rare grains up to 1mm, rare to sparse black iron rich

Table 8.1: Pottery fabrics present in the non-kiln assemblage, Site M1C

Beds CTS code	Database code	Name	Date	Sherd count	Weight (g)	EVE
B07	F330	Medieval shelly ware	AD1100-1400	7	115	0.02
C03	F360	Fine sandy reduced ware	12th-13th C	6	59	0.00
C03a	F361	Fine sand and flint	12th-13th C	9	97	0.10
C57	F343	London ware	mid 12th-late 14th C	2	28	0.00
C59a	F362	Coarse sandy ware	12th-13th C	24	239	0.14
P06	F412	Slip-decorated earthenware	17th C	1	8	0.00
P12	F404	Cistercian ware	*c*AD1470-1550	1	11	0.00

Key: Estimated Vessel Equivalent = EVE

fragments up to 1mm, occasional calcareous inclusions up to 1mm, and sparse voids surrounded by blackened areas caused by burnt-out organic material.

Both oxidized orange-brown and reduced grey sherds were present and many were also a brown grey. This variation in colour was mainly restricted to surfaces, with the core of sherds almost invariably reduced grey. The vessels appear to have been coil built and finished on a turntable, with evidence of knife trimming on the lower body. The fabric is similar to Hertfordshire-type greywares (Blackmore and Pearce 2010, fig 49) such as those from kiln sites at Hitchin (*ibid*, 107; Blinkhorn 2016). The Hertfordshire-type tradition is generally dated to the mid 12th to mid 14th centuries and a number of kiln waste groups have been analysed and published in the region (Blackmore and Pearce 2010; Slowikowski 2011).

A number of sherds were spalled or warped, and none showed any sign of use, such as sooting, other than the probable cistern. A small number of broken and spalled, reduced tile fragments were also noted. These may have been made at the kiln, or were perhaps used as packing during firing. All had stabbed backs.

CHRONOLOGICAL SUMMARY

The kiln waste originates from the earlier part of the medieval period. The fabric has some affinities with the late medieval reduced ware tradition, but the proportion of vessel forms is quite different. Jars predominate here, whereas bowls are much more common in other late medieval assemblages. A kiln at Higham Ferrers, Northamptonshire, dated AD1385–1435, produced bowls as the major vessel type, with jars the least common (Blinkhorn 2007). Earlier medieval pottery assemblages generally have a far higher proportion of jars than any other vessel types, and this group conforms to that pattern. The decorated handles from this group are also more typical of the earlier medieval tradition than industries after the Black Death.

Kiln waste in very similar fabrics came from Great Missenden in Buckinghamshire (Ashworth 1983) and the most recently excavated group from there is also similar (Blinkhorn in prep, b). The method of manufacture is the same, with the vessels comprising jugs, bowls and jars apart from a few possible curfew fragments and a single skillet handle. Jars are the most common vessel types, and the jug handles are all decorated with thumbing and stabbing or slashing. The assemblage is of the mid 12th to mid 13th centuries. The range of rim forms from the group is also in keeping with Hertfordshire-type greyware. Some large heavy base sherds with thumbed applied strips on the carination are noted here, and are likely to be from the bases of bunghole cisterns or from the shoulders of curfews. In London both vessel types were part of the Hertfordshire-type greyware potters' repertoire from the late 12th century onwards (Blackmore and Pearce 2010, fig 135). The style of decoration on the jars, particularly the applied strips, suggests the same date as a *terminus post quem*.

Most of the other pottery types are unglazed sandy and shelly coarsewares, which could date to any time in the 12th–14th centuries. The initial cleaning of the top of the pot bank produced the base of a Cistercian ware cup, which is unlikely to be earlier than the mid 15th century, but due to its stratigraphic position indicates that the kiln waste dates to before that time. The only closely dateable finds from the pot bank are two sherds of abraded London ware. Both have white slipped outer surfaces with a patchy green splash glaze. The slip on the larger of the sherds appears to be in the form of a painted lattice, a style of decoration typical on early rounded jugs of the late 12th to early 13th centuries (Pearce *et al.* 1985, 28, fig 9).

Probably the most chronologically sensitive feature of Hertfordshire-type greyware jugs is the handles which appear to change consistently over time. The range of decoration here indicates production in the early to mid 13th century, which is assumed for the kiln waste overall.

Typology

The rim assemblage is limited to jars, bowls and jugs, with jars being the most common (EVE 28.77, 82.3%). Bowls make up 11.8% (EVE 4.11) and jugs 5.9% (EVE 2.06). This is similar to the kiln waste from the Bancroft site in Hitchin (Blinkhorn 2016), where jars were the most common (75.5%). There were a greater proportion of jugs (19.9%), and bowls were relatively scarce (4.6%). The handles from the Bancroft site were largely thumb-grooved straps with slashing or stabbing, and six examples were noted with a single stripe of white slip running down the thumb-groove. Fingertip or thumbed decoration was scarce at Bancroft, with just three out of the 75 handle fragments so treated. The differing handle decoration at this site may be chronological; Hertfordshire-type greyware vessels with slashed and stabbed handles occur in London from the beginning of the 13th century and are most common in the last quarter of the 13th to early 14th centuries (Blackmore and Pearce 2010, 172). Thumbed handles, which make up the majority of the types from Site M1C, largely date to the early to mid 13th century (*ibid*, fig 135).

Jars

Fifteen different rim forms are variations on simple, near horizontal everted types. Only one form is upright and only a single sherd has such a form. The original shape of the complete vessels is difficult to ascertain as it was not possible to reconstruct any vessels to any great degree. The larger rim sherds suggest that there may have been two basic forms; one with a more rounded profile and no discernible neck (Fig 8.10, <P440>), the other with a higher neck and more pronounced shoulders (Fig 8.10, <P441>). The complete Hertfordshire-type greyware jars from London suggest that these are common forms (Blackmore and Pearce 2010, figs 74–79).

Jar rim diameter occurrence shows that they have a unimodal distribution in the 160–240mm range (Fig 8.11), with a mean size of 213.6mm, although a few fragments of much larger vessels are also present. The distribution of the jar rim diameters is very similar to the kiln site at Bancroft in Hitchin (Blinkhorn 2016). The mean diameter of the jars from that site is 214.5mm, indicating a virtually identical range of sizes.

Some of the jar rims have decoration on the upper surface of the rim bead, usually stabbing, with a round cross-section tool, although a few examples are noted with combing running around the circumference. The decorated rim sherds in the main have diameters at the larger end of the size distribution, 281–300mm, and have a mean size of 287.1mm, suggesting that they

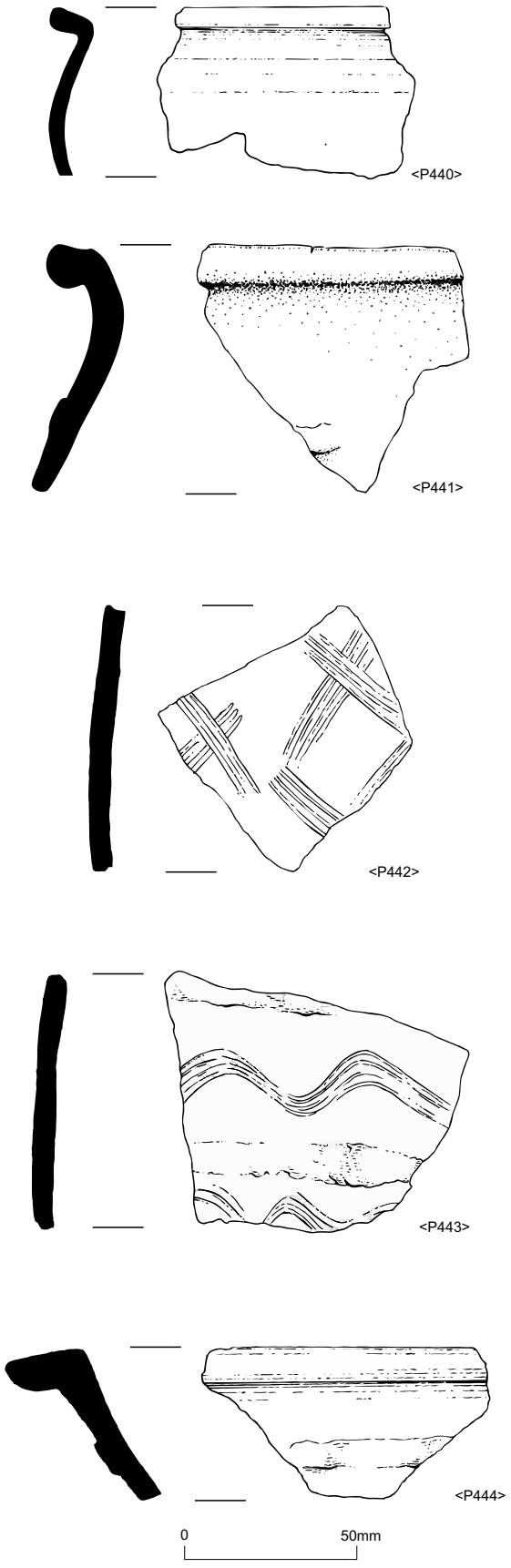


Fig 8.10 Key medieval sherds from the pot bank, Site M1C

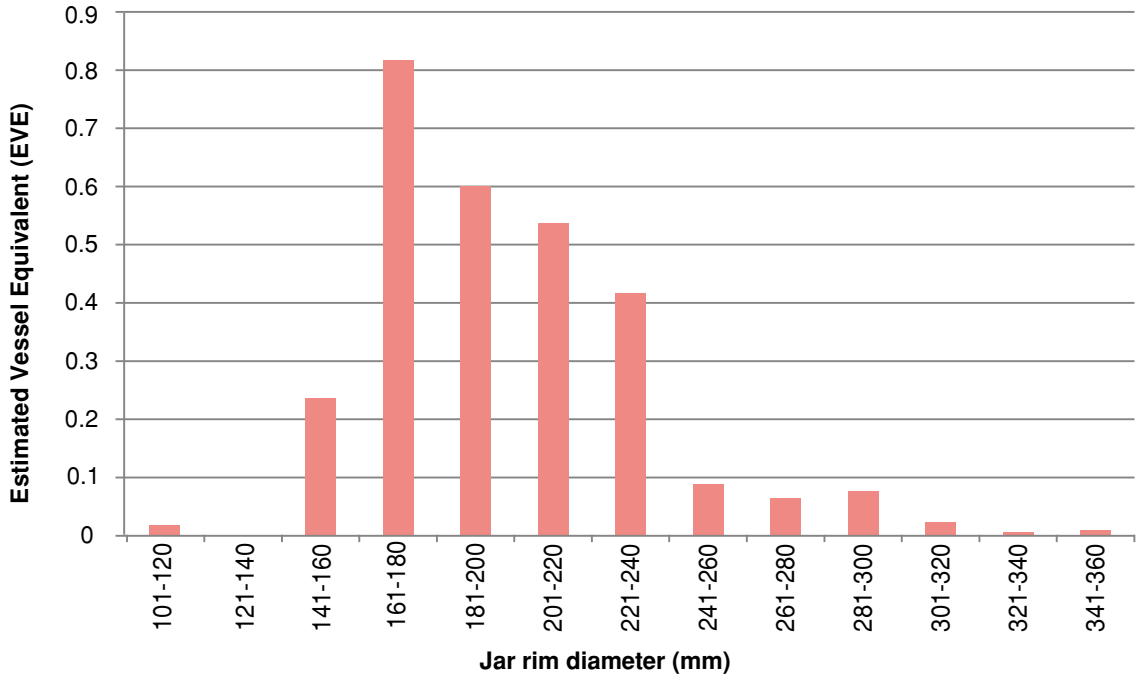


Fig 8.11 Jar rim diameter occurrence, in 20mm diameter groups, by EVE

are all from storage vessels. None of the jars from the kiln waste have fingertip decoration on the rim in the manner of the large, near-complete cistern (Figs 8.15 and 8.16, <P463>); further indicating that it was made elsewhere. There are 225 body sherds (2,829g) with applied and/or incised decoration, with the curvature of the sherds suggesting that they all came from large vessels (Fig 8.10, <P442 - 443>). The decoration in the main comprises variations of shallow, thumbed applied strips and/or combed wavy lines, with the turning marks on the inside of the sherds indicating that most of the applied strips run horizontally around the body. Hertfordshire-type greywares with horizontal applied strips first arrived in London in the late 12th century (Blackmore and Pearce 2010, 148). A small number of sherds with an incised lattice are also noted, probably all from the same vessel (Fig 8.10, <P442>). The decoration of the large cistern, vertical applied strips with stabbing on the top of the shoulder below the neck, is not noted on any of the kiln waste.

BOWLS

The rim diameters indicate a largely unimodal size distribution, with a mean diameter of 321.4mm (Fig 8.12). These are a little larger than the bowls from Bancroft, Hitchin, which had a mean diameter of 309.3mm (Blinkhorn 2016).

Like the jars, some bowls have decoration on the rim top in the form of stabbing, although just two rims are noted with this treatment. This is a similar pattern to the bowls from Bancroft. A few examples are also noted with horizontal applied strips running along the bodies (Fig 8.10, <P444>).

JUGS

The range of forms is very narrow and all appear to be variations on a single theme of simple everted beads and near vertical, slightly out-splayed necks. The vast majority of the rims are in the 121–140mm size range (Fig 8.13). There is a single decorated rim with combed wavy lines on top of the bead.

HANDLES

There are 15 forms for 38 handles (Figs 8.14a and b). They are mostly variations on flattened rods which is fairly typical of the Hertfordshire-type greyware tradition, although three different strap types also occur (Fig 8.14b, <P452>, <P454>, <P456>). One example of each is noted. The range of decoration is fairly typical of the tradition, consisting of combinations of stabbing, slashing and thumbing, although the material from has its own variations which do not occur elsewhere, particularly longitudinal lines of stabbing flanked by thumb impressions, and combination of longitudinal grooves with stabbing. Stabbing is far more common than slashing, which contrasts with the other production centres, where the opposite is usually the case, although general variations on stabbing

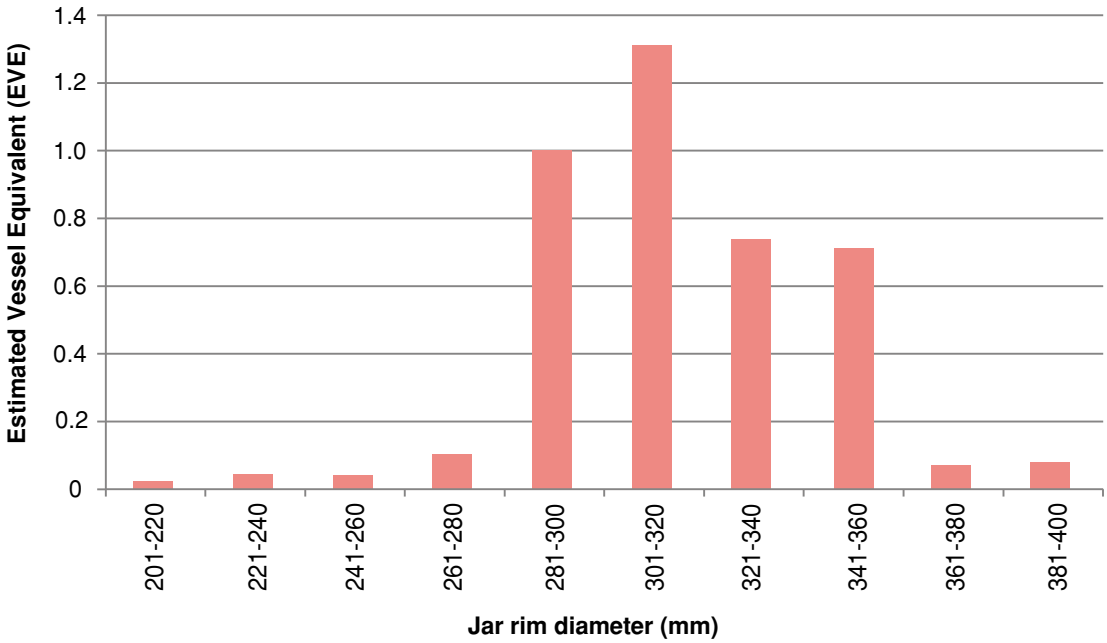


Fig 8.12 Bowl diameter occurrence, in 20mm diameter groups, by EVE

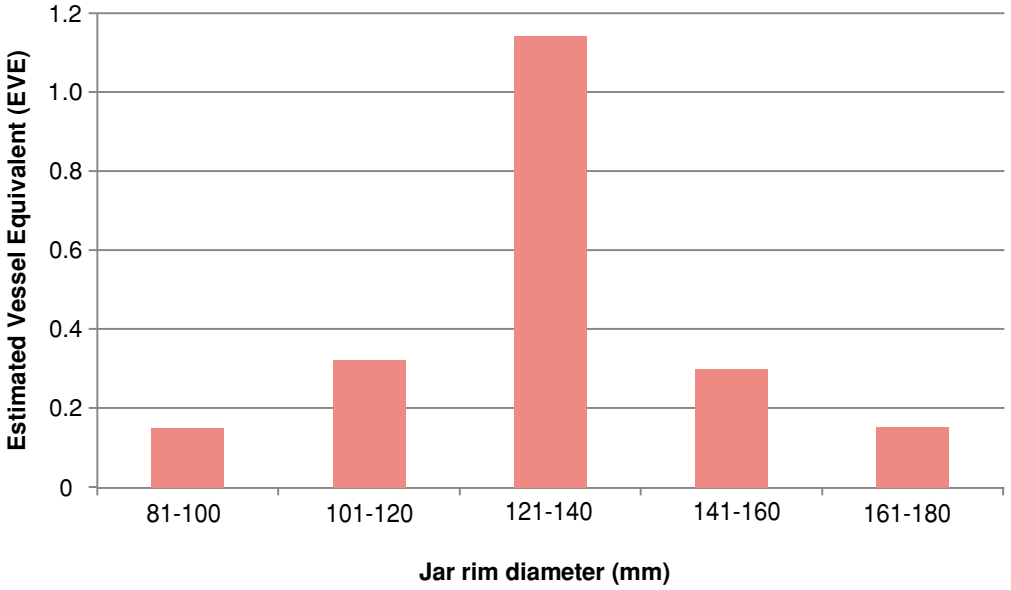


Fig 8.13 Jug diameter occurrence, jug rims, in 20mm diameter groups, by EVE

and thumbing, on the majority of the handles found here suggest a date in the early to mid 13th century (Blackmore and Pearce 2010, fig 135).

Bases

All of the bases have a sagging profile; seven having thumb frilling and eleven have applied thumbed strips to create foot rings. The thumb frilled bases are probably from jugs, the foot ring examples are from cisterns.

Bunghole cisterns

No bungholes were found but there are fragments from rims and bases. A number of fairly large heavy duty rims are much thicker than others in the assemblage (Fig 8.15, <P460>). There is also a single example with a very deep lid seat (Fig 8.15, <P461>). The only complete Hertfordshire-type greyware cistern from London also has a heavy duty rim, although large jars without bungholes occur with such rims (Blackmore

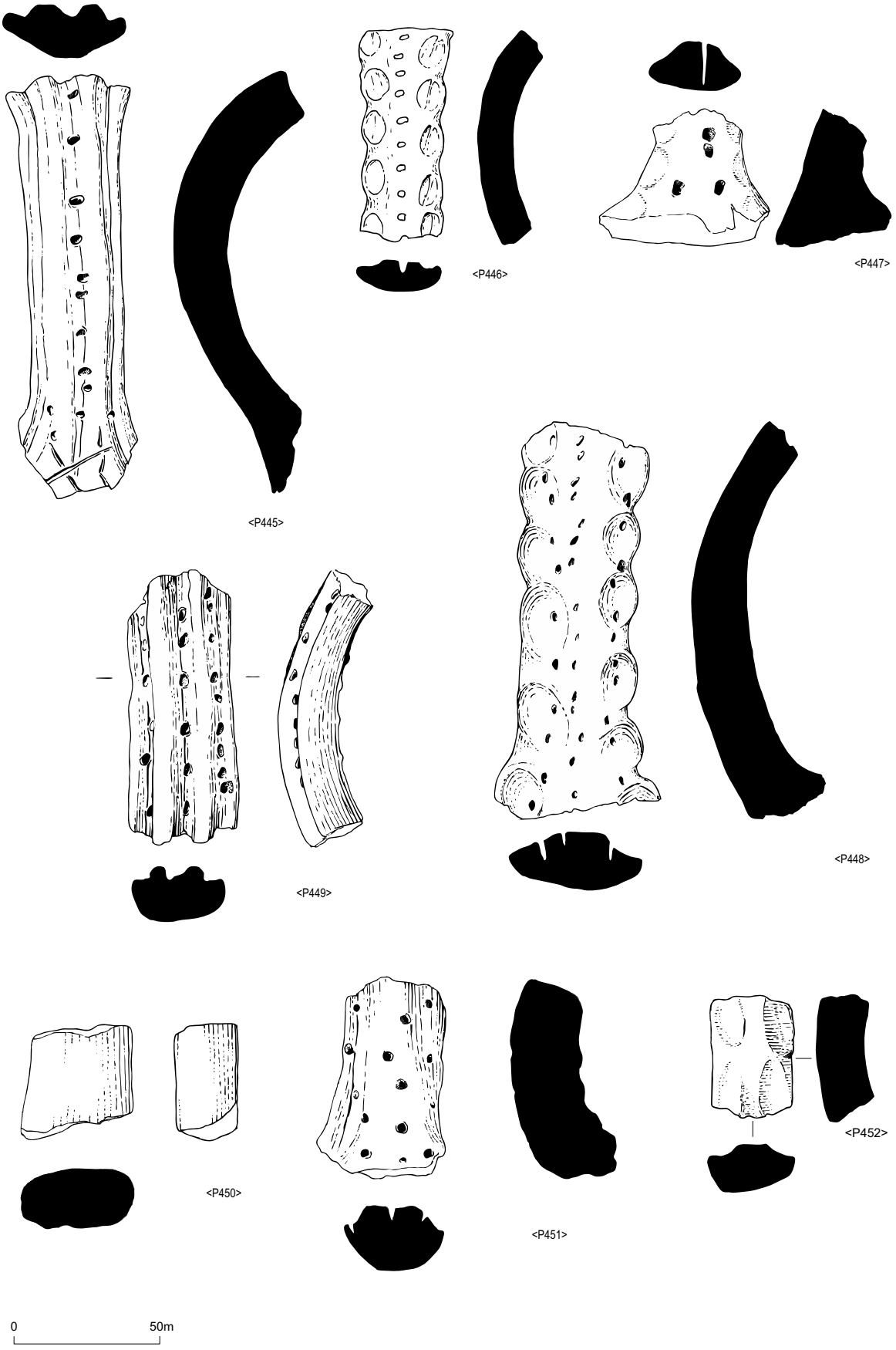


Fig 8.14a The range of medieval jug handles from the pot bank, Site M1C

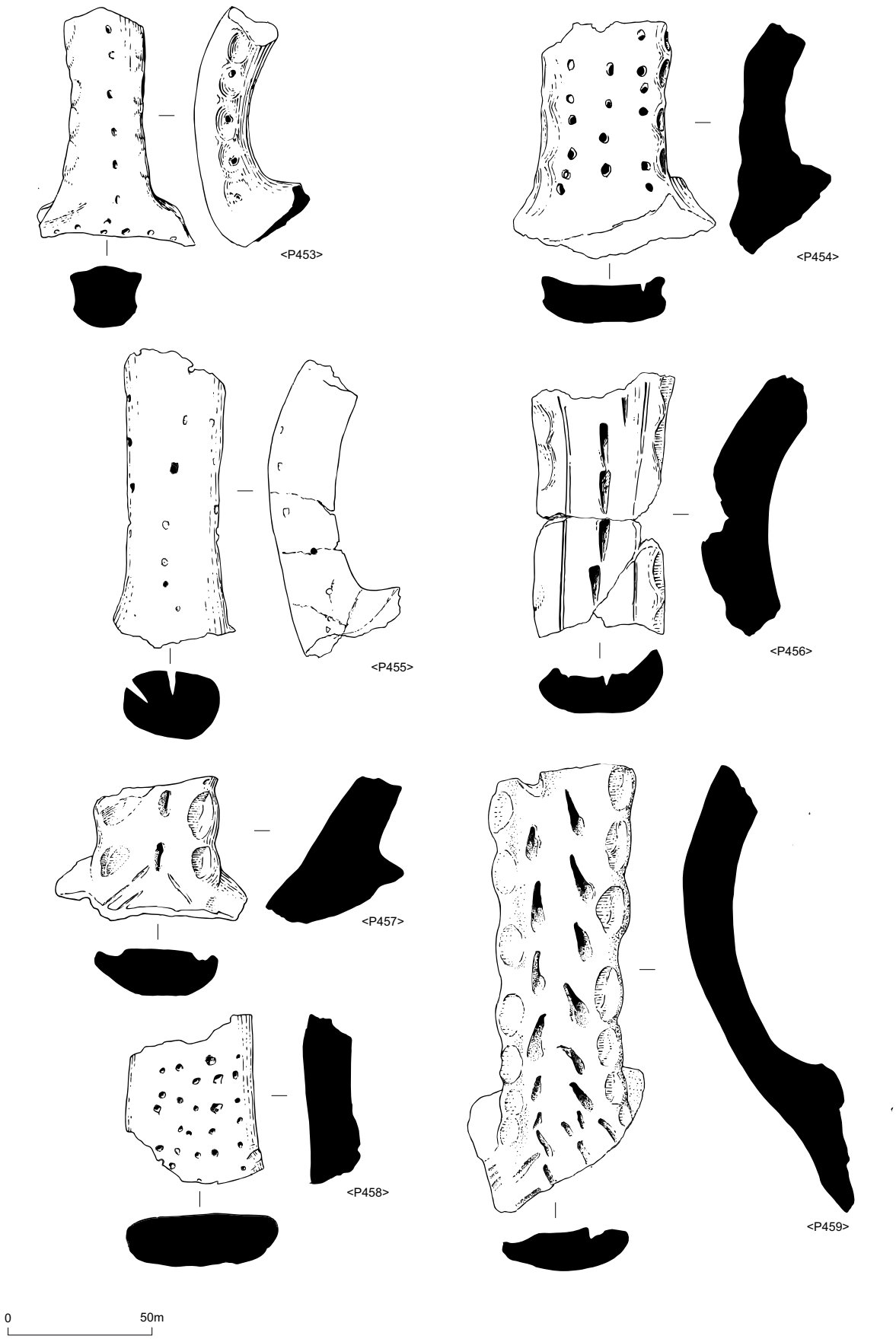


Fig 8.14b The range of medieval jug handles from the pot bank, Site M1C

and Pearce 2010, 150). More persuasive evidence for the manufacture of bunghole cisterns comes from the eleven base fragments with applied thumbed strips running around the carination and acting as foot rings (Fig 8.15, <P462>). Most have a large diameter, in excess of 300mm and are very similar to the London examples (*ibid*, 151–4). These may also be from curfews, which in terms of form are very similar to inverted bowls, although they tend to have decoration on what would otherwise be the base (*ibid*, 190–1). Handles with circular vent holes, which only occur on curfews, are also absent from this assemblage. On this basis the large frilled foot ring bases and at least some of the heavy duty rims are from bunghole cisterns. Such vessels occur in London from the late 12th to mid 14th centuries (*ibid*, fig 135).

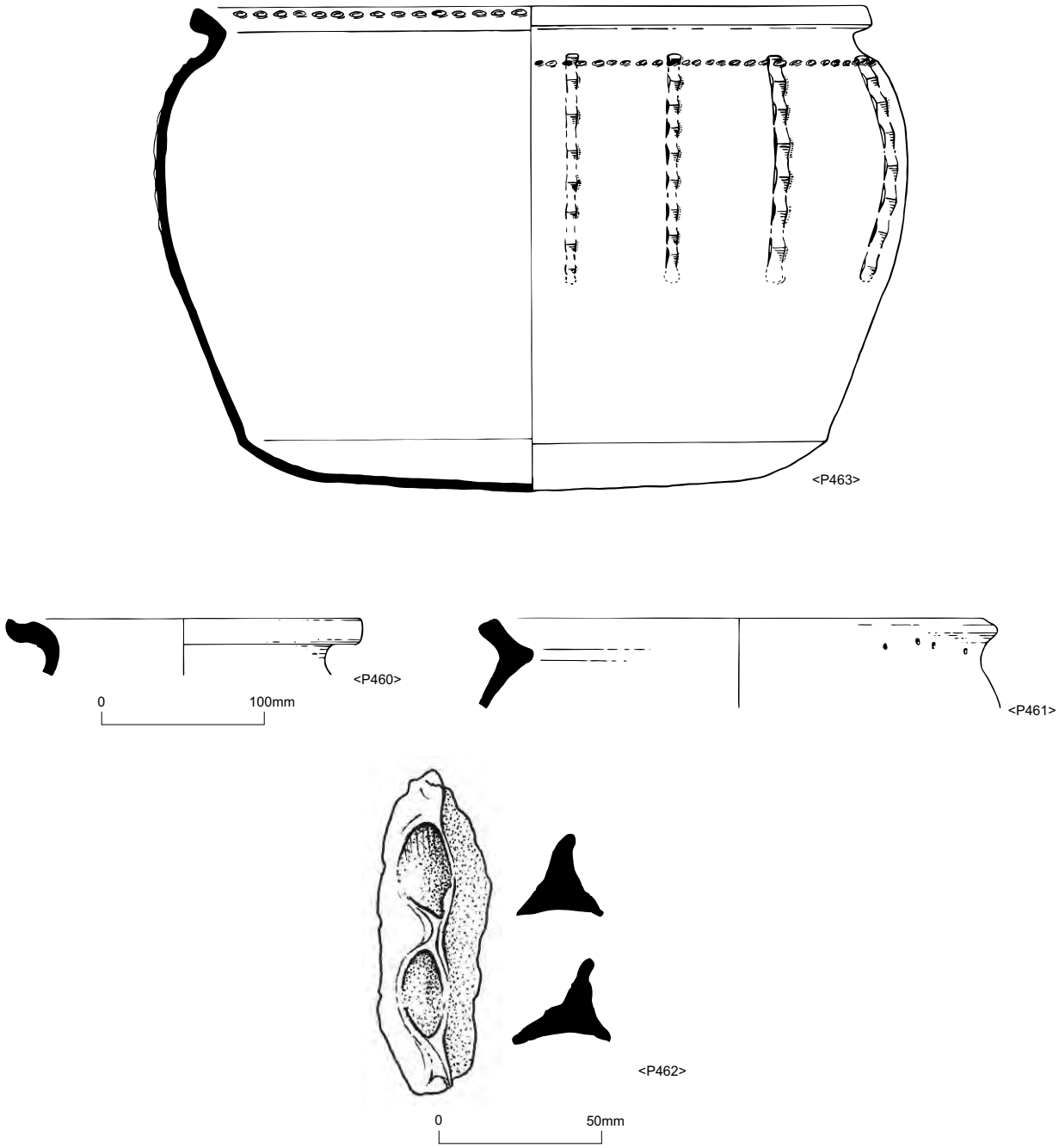


Fig 8.15 The medieval pottery from possible bunghole cisterns, Site M1C

THE POTTERS' CISTERN

A large and near complete jar is from pit M1C[7161] (Figs 8.15 and 8.16, <P463>). The jar is very large, with a rim diameter of 420mm, and is *c.*260mm high. The capacity is in the region of 45 litres (9.9 gallons). The fabric is similar to that of the kiln waste, and the Hertfordshire-type greyware industry generally, but the vessel has a much greater rim diameter than any others from the site and a slightly different style of decoration. The fingertip decoration on the rim and shoulder of the vessel has no parallels at this site, and the applied strips are vertical rather than horizontal. There are no parallels amongst any of the greyware kiln waste groups published by Blackmore and Pearce (2010). Large jars with vertical applied strips are known from domestic sites in London (*ibid*, fig 76), and some have stabbed rims (*ibid*, 75), although none of the published examples have the finger-tipping on the rim or the stabbing on the shoulder that this vessel possesses.

The jar had been sunk into the ground and was presumably a water storage vessel, possibly used in the potting process. Whole pots of the 12th–13th centuries were found in the toft area at the manufactory at Lyveden, Northamptonshire, one was a large jar and the other a bowl in the top of stone-lined pits used as clay stores (Steane and Bryant 1975, 14–15). No obvious parallels in the region are known, although a shallow stone-lined feature near to the potters' workshop at Kings Meadow Lane, Higham Ferrers, may have had a similar function (Blinkhorn and Hardy 2007, 215–6).

THE ASSEMBLAGE IN ITS REGIONAL CONTEXT

The Hertfordshire-type greyware industry is well documented and a number of manufacturing centres and groups of kiln waste have been excavated. The tradition was recently the subject of work showing that kilns making very similar wares are found in Hertfordshire-type, Buckinghamshire, Middlesex and Surrey (Blackmoore and Pearce 2010, 83). With the discovery of this kiln waste, Bedfordshire can now be added to the repertoire.

The pottery from this kiln has decorated affinities with both the Limpsfield-type greywares from Surrey and those from Hertfordshire-type kilns. For example, the thumbed handles show some differences to those from the Hertfordshire-type industries, whose potters appear to have favoured knife slashing over pin stabbing, but are like some of the examples from Clacket Lane, Titsey (*ibid*, fig 64), and pin stabbed, thumbed handles were considered by Dunning to be typical of the pottery from Vicars Haw, Limpsfield (Prendergast 1974, 58). Jars and bowls with stabbing on the rim are far more common at Titsey than at the Hertfordshire-type and Buckinghamshire sites (Blackmore and Pearce 2010, fig 64).

The assemblage from this site has similarities with material manufactured in South Buckinghamshire in the Great Missenden area, particularly from the Granary Cottage site (Blinkhorn in prep, a), and the same comments apply to material from Tyler's Green

Fig 8.16 Large, near complete jar, M1C[7160]

(Cauvain *et al.* 1989). Thumbed and stabbed handles were also fairly common at Rush Green, Denham (Blackmore and Pearce 2010, fig 62). Handles with such decoration are common on domestic sites in London, but examples that also have the longitudinal grooves or thumb impressions flanking lines of stabbed dots are entirely absent amongst the illustrated material, suggesting that the products of this manufactory were not reaching London in quantity, if at all.

CATALOGUE OF ILLUSTRATED HERTFORDSHIRE-TYPE GREYWARE FROM SITE M1C (FIGS 8.10, 8.14-8.16)

<P440> Jar rim, dark grey fabric with uniform orange-brown surfaces, layer M1C[7006]
<P441> Jar rim, uniform light grey fabric, layer M1C[7006]
<P442> Decorated bodysherd with horizontal combed wavy lines and thumbed applied strips, grey fabric with brown surfaces, layer M1C[7099]
<P443> Decorated bodysherd with incised lattice and horizontal thumbed applied strip, grey fabric with brown surfaces, layer M1C[7106]
<P444> Bowl with applied strip decoration on the body, uniform grey fabric with an orange patch on the outer surface, layer M1C[7006]
<P445> Handle type 1, uniform light grey fabric, layer M1C[7087]
<P446> Handle type 2, grey fabric with uniform orange-brown surfaces, layer M1C[7102]
<P447> Handle type 4, uniform grey fabric, layer M1C[7104]
<P448> Handle type 3, grey fabric with uniform orange-brown surfaces, layer M1C[7104]
<P449> Handle type 5, grey fabric with brown surfaces, layer M1C[7117]
<P450> Handle type 6, dark grey fabric with lighter surfaces, layer M1C[7093]
<P451> Handle type 7, uniform grey fabric, layer M1C[7086]
<P452> Handle type 8, grey fabric with brown surfaces, layer M1C[7086]
<P453> Handle type 9, variegated dark brown and black fabric, layer M1C[7077]
<P454> Handle type 10, uniform light grey fabric, layer M1C[7073]
<P455> Handle type 11, uniform grey fabric, layer M1C[7117]
<P456> Handle type 12, uniform light grey fabric, layer M1C[7120]
<P457> Handle type 13, grey fabric with browner surfaces, layer M1C[7115]
<P458> Handle type 14, grey fabric with orange-brown patches on surface, layer M1C[7125]
<P459> Handle type 15, grey fabric with orange-brown surfaces, layer M1C[7124]
<P460> Heavy duty rim, grey fabric with light grey-brown surfaces, layer M1C[7006]
<P461> Heavy duty rim with deep lid-seating, orange fabric with pale brown-grey surfaces, layer M1C[7124]
<P462> Thumbed footing from a possible cistern, dark grey fabric with browner surfaces, layer M1C[7006]
<P463> Jar, large, near-complete, grey fabric with slightly browner surfaces, evenly sooted below the shoulder on the outer surface, fill M1C[7160]

REGISTERED MEDIEVAL FINDS

BY TORA HYLTON

Two nails, a small strip of iron and an undiagnostic shard of clear glass were recovered from the flattened pot bank. A copper-alloy trapezoidal buckle frame was recovered from a layer overlying the demolition of Building 1. The frame has pointed ends and a protrusion either side of the strap bar, it would have been used as a spur buckle and dates to the mid 17th century (Whitehead 1996, fig 512, 513).

CHARRED PLANT MACROFOSSILS AND OTHER REMAINS

BY VAL FRYER

Five bulk soil samples were processed and the results are summarised below in Table 8.2. Plant macrofossils other than charcoal/charred wood were generally scarce. Preservation was mostly very poor; many of the grains and seeds were very fragmentary and were also puffed and distorted.

Cereal grains (particularly wheat) are common within the assemblage from ditch M1B[5004], which may derive from a small discrete deposit of either cereal storage refuse such as animal feed or domestic waste. Bone fragments and a piece of hazelnut shell are also recorded, making the latter more probable. All of the weed seeds within the same assemblage are of a similar size to the grains. Such seeds commonly persisted in batches of prime grain not intended for human consumption, or until they were removed by hand immediately prior to food preparation.

A small number of cereals and weed seeds are recorded from the spread of the pot bank at Site M1C, but the assemblages are largely composed of fragments of charcoal/charred wood. The deposit is comprised of detritus generated by the regular burning of refuse and other materials.

Table 8.2: Charred plant remains from medieval deposits, Site M1C

	Ditch	Grids within flattened pot bank			
	M1B[5004]	AN	AW	AX	AY
Cereals					
Oats, *Avena* sp. (grains)	xcf	-	-	-	-
Wheat, *Triticum* sp. (grains)	xx	-	-	-	x
Cereal, indeterminate (grains)	xx		xfg	x	xfg
Herbs					
Cabbage family, Brassicaceae, indeterminate	-	-	-	-	xcf
Brome, *Bromus* sp.	x	-	-	-	x
Legumes, indeterminate	x	-	-	-	-
Black bindweed, *Fallopia convolvulus* (L.) A. Love	xcf	-	-	-	-
Cleavers, *Galium aparine* L.	-	-	-	-	xfg
Tree/shrubs					
Hazel, *Corylus avellana* L.	x	-	-	-	-
Other plant macrofossils					
charcoal <2mm	xxxx	xxxx	xxxx	xxxx	xxxx
charcoal >2mm	xxx	xxx	xxx	xx	xxx
charcoal >5mm	-	x	x	x	x
charcoal >10mm	-	x	-	-	-
indeterminate seed	-	-	-	-	x
indeterminate tuber fragment	-	xcf	-	-	-
Other remains					
black porous 'cokey' material	xx	x	-	-	x
black tarry material	x	-	-	-	-
bone	x xb	-	-	x	-
burnt/fired clay	x	-	x	-	x
small mammal/amphibian bones	x	-	-	-	-
Sample volume (litres)	**28**	**20**	**14**	**16**	**14**
Volume of flot (litres)	**<0.1**	**0.1**	**0.1**	**0.3**	**0.2**
% flot sorted	**100%**	**100%**	**100%**	**50%**	**50%**

Key: x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens
cf = compare fg = fragment b = burnt

FAUNAL REMAINS

BY LASZLO LICHTENSTEIN

Sixteen hand-collected animal bone elements and fragments (118g) were recovered. Three specimens (20% of the total NISP) were identified to taxa and parts of anatomy, representing cattle and sheep.

The bones are generally in good condition. The fragmentation is high with the majority (79.7%) being less than 50mm in size. No complete long bones were recorded, because the proximal and the distal ends are damaged. No evidence for burning or bone working was observed. Two instances of butchery are noted on cattle radii and on a large ungulate-size long bone fragment.

A single freshly broken bone was recovered in seven fragments from ditch M1B[5008]. These scapulae fragments are from a horse shoulder blade but there is no evidence for butchery, canid gnawing, burning or pathology.

REGIONAL LANDSCAPE CONTEXT AND DISCUSSION

PREVIOUS ARCHAEOLOGICAL WORKS AND ASSOCIATED SITES

The variety and character of local medieval settlement is summarised in Chapter 7, as part of the background to the detailed excavations at Chalton and Thorn. The same background is relevant here to the site of Nuppings Green, north of Toddington.

Nuppings Green (HER12106) is included among the medieval and post-medieval sites recorded by the Historic Environment Record (HER) within a 1km radius of M1 Junction 12 (Fig 8.1, Table 8.3). There are also a number of archaeological fieldwork events that preceded the M1 improvements, mainly undertaken in the mid–late 1990s that are relevant to the discovery of the site.

A roughly oval mound (HER3635) is located to the west of Site M1C, which may represent a pillow mound or disused windmill mound associated with Nuppings Green. Whilst no work has been done to test this hypothesis, it was depicted with rabbits and a warren on the 1581 map of Toddington Manor by Ralph Agas.

Much of the area was formerly covered by ridge and furrow cultivation, which has now been mostly ploughed flat. Those elements that survive (HER3355), which are visible on aerial photographs or that were noted during excavations, have so far followed the same alignments depicted upon the Agas' map.

The site of Wadlowes Manor was identified across the valley to the south-east of Nuppings Green when traces of a moat were observed in 1922 by Gurney (BARS X325/66). Gurney proposed this as the site of a moated manor (HER788). The placename is possibly Saxon, probably derived from *Wada's Hlaw*, meaning the burial mound of Wada.

There are two medieval deer parks recorded to the east of M1 Junction 12 but little is known about them (HER5116; 8760). Both appear on historic maps, one is recorded by the *Victoria County History* (Page 1912, 381), and amongst historical documents held by Bedfordshire Archives and Records Service (BARS CRT100/36; MA45, 1810; X21/527, 1825). Their exact extent is a little uncertain and a building marked on Agas's map, but not shown on the enclosure map of 1797, is thought to have been a possible hunting lodge (HER12109).

A number of post-medieval buildings are noted in the area. Old Park Farmhouse, Redhills Farmhouse and Mill Farmhouse, with its adjoining watermill, are all Grade II Listed Buildings (HER1142; 5317; 6629). They originate from the 15th to 17th centuries and carry a variety of modifications through succeeding centuries to the present day. A former windmill (HER3146) is depicted by historic maps.

Table 8.3: HER data for the medieval and post-medieval periods, M1 Junction 12

Age noted by HER	HER Ref	Description	NGR	
Medieval	788	Site of Wadlowes Manor, moated site	502500	230300
Medieval	3355	Ridge and furrow earthworks	501800	228190
Medieval	3635	Possible pillow mound or later mill mound	501400	230500
Medieval	5116	Deer Park recorded from 1292 to 1791	502940	229870
Medieval	8760	Deer Park shown on Agas map of 1581	503000	228000
Medieval	12106	Nuppings Green, enclosed village green shown on map of 1581	501570	230580
Medieval	12109	Site of possible hunting lodge	502400	229600
Medieval	16239	Pottery, 6 rims and 2 jug handles	502000	230000
Post-medieval	10127	Site of Gallows Knock or Knoll	502500	230500
Post-medieval	12037	Gravel pit beside Long Lane	501400	230700
Post-medieval	12108	Sand extraction pits on aerial photographs	502850	229800
15th-18th centuries	5317	Old Park farmhouse, Grade II Listed Building	502640	229500
16th-19th centuries	6629	Redhills farmhouse, Grade II Listed Building	502170	230600
17th-19th centuries	1142	Mill farmhouse and watermill, Grade II Listed Building	502200	229350
17th-19th centuries	3146	Site of windmill, mapped in 1765, 1826	501600	229200
Recent fieldwork	E40	Fieldwalking, M1 Stage 3 assessment	502210	228449
Recent fieldwork	E41	Geophysical surveys, M1 Stage 3 assessment	502111	228192
Recent fieldwork	E803	Fieldwalking, M1 Stage 3a assessment	599690	229340

To the north of Site M1C lay Gravelpitt Close, thought to be a former quarry (HER12037). Other quarries are shown by a variety of aerial photographs and were mainly for sand and gravel, many of them late post-medieval and extending into the early 20th century (HER12108).

THE DOCUMENTARY EVIDENCE

The placename for Nuppings Green is amongst those examined as part of a study into the local history of Toddington by Blundell (1925), indicating that the settlement was long-lived and occurs variously in documents as *Nuppinges* (1581), *Nuppins Green* (1741–1800), *Nobbins* (1765), *Napkins* (1796), *Nubbins* (1800) and *Nappins Green* (1925).

HISTORIC MAPS

Maps were examined at the Central Bedfordshire HER and at the Bedfordshire Archives and Record Service (BARS). Relevant maps have been redrawn using the originals to illustrate principal changes. The resultant diagrams are no more uniform in scale than the originals (Fig 8.17).

The 1581 map of Toddington Manor by Ralph Agas (BARS X1.102.I/D) shows an enclosure called *Nuppinges Greene*. There was a small building in the south-west corner of the neighbouring enclosure. Land to the north is labelled as *Parte of Gravelpitt Close*, but is shown as wooded. A narrow country lane, possibly Mary's Lane, since the writing is very difficult to discern, led eastward from Long Lane. An oval pillow mound illustrated with rabbits and a warren lay west of Long Lane (not illus.).

By 1765, the map of Bedfordshire by Thomas Jeffreys depicts *Nobbins Green* with two buildings east of Long Lane, one inside a rectangular enclosure adjoining the road, the other outside and fronting the lane. Oddly, the site is depicted at the foot of the hill, north of the stream, and Mary's Lane is absent. To the north was a crossroads and two buildings labelled *Long Lane House*.

On the 1797 Enclosure map of Toddington (BARS MA1/1-2), plot 97, formerly *Nuppinges Greene*, is now labelled *Lady's Ground*. No buildings lay within the enclosure, but a smaller plot (132) immediately adjacent to the north-east contained three buildings. This plot was part of a wooded area on the Agas' map, but no trees are depicted here or in plot 130, which was formerly Gravelpitt Close. An unnamed private road, formerly Mary's Lane, led east from Long Lane past the south side of plot 97.

Three years later, in 1800, a map of land belonging to Thomas Conelly (BARS X21/590) was produced as part of a land auction and has Lady's Ground marked as SOLD. A single building is depicted outside to the north-east, showing a different arrangement to the group in plot 132 from 1797.

Beside Long Lane, in the vicinity of Site M1C, a small group of fields and two separate groups of buildings are shown by the 1815 Ordnance Survey map. No lane is depicted and, unlike Jeffreys' map, the land is shown at the top of the hill. However, the configuration of buildings and boundaries appears to be a hybrid of earlier maps and parliamentary enclosures rather than an accurate survey. On the 1st and 2nd edition Ordnance Survey maps (OS 1882; 1901; sheet 293, XVV.14) the land units from 1797, plots 97 and 132, are combined. No lane is depicted and the buildings from 1797–1815 had gone. A building is shown in the former plot 126, in the same location as that marked in 1581. The 1901 Ordnance Survey records a possible building in the field to the north alongside quarrying, but this is not depicted after 1969.

AERIAL PHOTOGRAPHS

Aerial photographic images held at the National Monument Record in Swindon were examined (Brown 2011, table 2). Unfortunately it is not possible to reproduce the images to publication quality.

A small group of enclosures on the east side of Long Lane are those in the vicinity of Nuppings Green (RAF/CPE/UK/2159, June 1947, frame 4205), the boundaries are as depicted in 1882 (Fig 8.17). The curved hedgerow of the field to the north (plot 130) was removed; the ditch remained as an earthwork and formed the perimeter to the quarry site at Gravelpitt Close. The small building shown in the south-east corner of plot 126 was demolished.

A later image shows the M1 motorway under construction and provides a useful orientation for the location of Site M1C in relation to the map evidence and HER data (RAF/58/2758, April 1959, frame 34). The excavations lay within the fields to the south of Nuppings Green and on the south side of Mary's Lane depicted by Agas' map (Fig 8.17). At no time, however, does the map evidence corroborate buildings at this location but it does suggest that the documentary record and the archaeological record represent two separate sites.

Comparison between the image of August 1961 (RAF/58/4646 August 1961, frame 175) and earlier images indicates clearly how much of the Nuppings Green enclosure group was lost to the motorway. All of the 1797 buildings depicted on maps were obliterated in the cutting. The only possible mapped structures to survive might be those shown by Jeffreys' map,

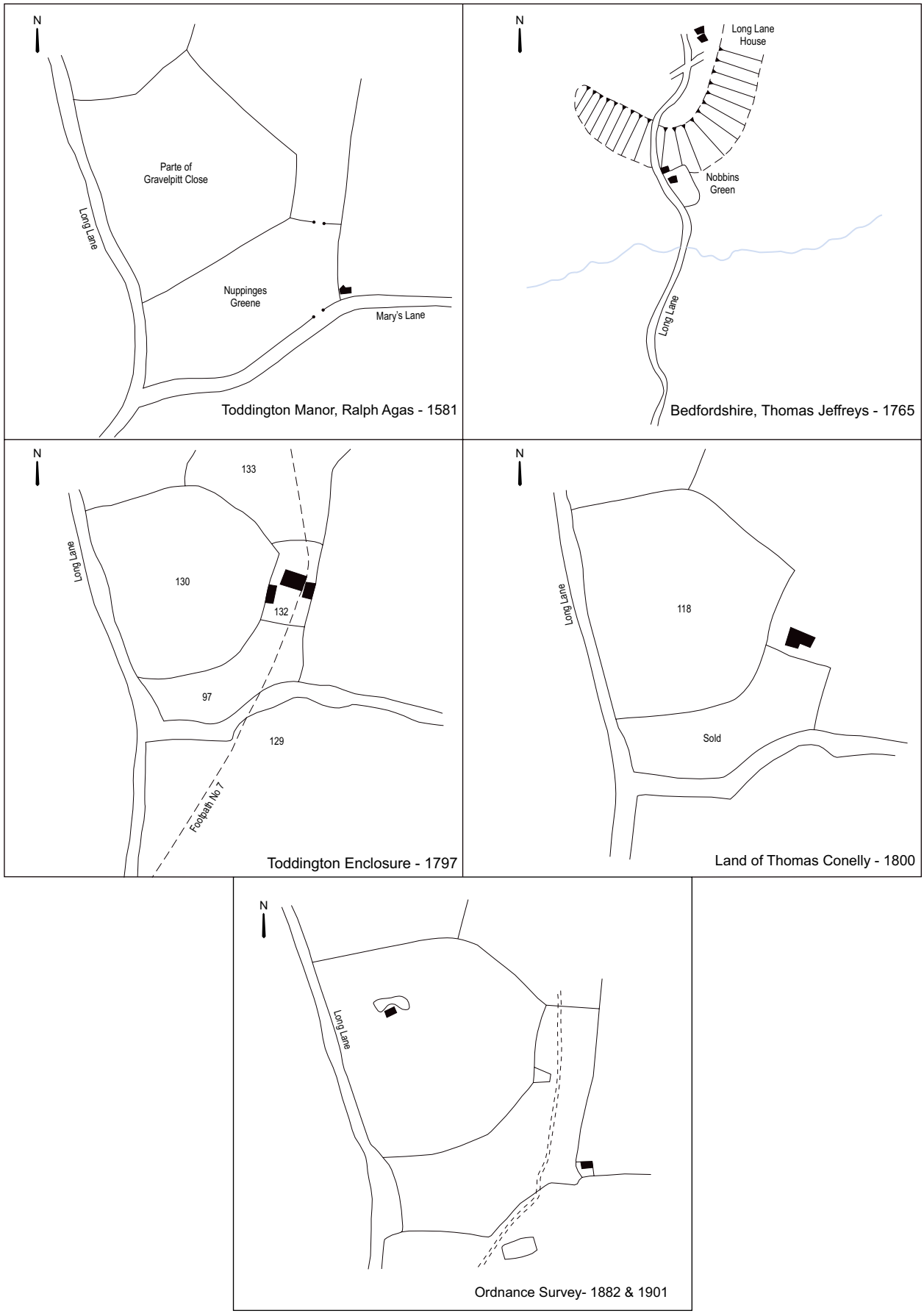


Fig 8.17 Historic map evidence for Nuppings Green

however, the map is topographically different, and despite the date tying in well to the excavated evidence for Building 2 (Site M1C) they are unlikely to show the same site.

Analysis of previous work, historic maps and aerial photographs was undertaken in an attempt to determine the wider extent and character of the settlement, given the limit of information available. It is still not clearly evident that the medieval potters' waste and the post-medieval buildings were part of Nuppings Green, and the site is thought to represent an isolated smallholding in the vicinity.

Discussion of the excavated remains

The medieval potters' working area

The pot bank almost entirely comprised pottery wasters in a fabric that is similar to the Hertfordshire-type greywares of the 12th–13th centuries with a *terminus post quem c.*1350AD. Very little other material was present to substantiate the theory that domestic waste may have been mixed with the pot dump. There was insufficient evidence to establish the presence of the potters' workshop, only a possible potter's water cistern within a pit beneath the spread of the pot bank. The kiln was not located. Sufficient medieval roof tile was recovered to suggest that a small tile roofed workshop or drying shed might have been located nearby, but the lack of domestic waste within the pot bank indicates that the potter did not mix his refuse and that any associated domestic residence was rather more distant. The potter probably lived nearby; however, there was no evidence to determine the location of any such residence and a larger area would need to be investigated to locate the potters' domicile, workshop, drying shed and kiln. It is thought that part of these structures lay beneath the spread from the flattened pot bank, assuming the water cistern lay within the workshop.

The lack of comparable structural and depositional evidence is not an uncommon situation for fieldwork to date (Oake *et al.* 2007, 107). An assemblage of 15th-century sandy ware from Church End, Flitwick, is the only regional example of a potters' waste dump (Mynard *et al.* 1983, 75). At Flitwick the material was also found in a 'black charcoal sandy matrix' that was 0.5m deep, overlying natural sand and gravel. Unfortunately since the deposit was found within the confines of two adjacent trenches, only 1.0m wide, the full extent of the deposit was not investigated and it is not possible to compare the depositional character of the waste dump. The majority of the analysis focuses on the pottery forms; bowls and cooking pots.

At Site M1C the potters' work was mainly utilitarian comprising jars, bowls and jugs. Relatively few of the pieces were well decorated and it would seem that this potter or potters made the majority of income from producing plain unadorned pottery to serve a basic function. The majority of decorated sherds came from one particular jar size and the majority of undecorated jars were also standardised to four principal sizes. There was little variation, with one size of jug being produced and four sizes of bowl.

Post-medieval buildings

Given the eccentric orientation of Buildings 1 and 2 to each other, it would not be possible for these to have formed a part of a single structure. The construction of Building 1 followed on from the flattening of the medieval pot bank, with 15th-century Cistercian ware sherds being left on top of the layer. After Building 1 was pulled down, a mid 17th-century copper-alloy buckle was mixed in with the demolition layers. Thereafter, Building 2 was constructed, which included a large fireplace.

The style of fireplace, often referred to as an inglenook, was essentially a working area beneath the chimney flue occupying almost the whole width of the building. This suggests that the building would have extended to the north-east and south-west, although nothing more of the structure survived. The size is uncertain, but it would probably have overlain Building 1 and comprised either two adjoining cottages sharing a chimney or a single cottage with a central fireplace, perhaps with a passage along one side.

The lack of structural evidence means it cannot be compared to standing examples, although buildings with fireplaces constructed in this manner are quite common in vernacular architecture throughout Eastern England as the materials were cheap, readily available and re-used from demolished structures. Some of the older cottages still standing in the nearby villages of Toddington and Chalton provide useful parallels. There are examples that have been published for the local area from Harlington (Kennett and Smith 1980) and Leagrave (Castle 1988).

During the late 17th century there were many floor plan arrangements in use, variations and successors of the medieval hall house (Alcock 1969). Usually the variations accommodated different numbers of bays, extended wings and or modified trusses. On this basis alone it is not possible to determine the size and layout of the building on the mere position and orientation of its chimney stack. A recently excavated example of a 16th-century kitchen range comes from St John's Street, Northampton, which had an inglenook with internal dimensions of 3.0m by 1.0m (Brown and Finn 2018). Its central hearth was 1.6m by 0.50m, comprising heat scorched stone flags. On its left side, set into the corner

of the kitchen wall, was a stone bread oven and on the right were further flagstones for standing cooking pots next to the hearth. However, the excavated example from Site M1C was a simpler and smaller affair.

The fireplace depicted in Fig 8.9 is likely to have resembled the one recorded in the timber-framed house at 59–65 Sundon Road, Harlington, prior to its demolition in 1979 (Kennett and Smith 1980). That building had a footprint of *c.*22m by 6m. Despite some later rebuilding and refacing in red brick it remained timber-framed throughout, consisting of five bays and defined by six trusses following the style of a late medieval hall house. A red brick chimney stack had been inserted between the two central bays of the building, common practice in the late 16th century (Alcock 1969, 43–6). The fireplace at Harlington was an inglenook with two openings back-to-back and facing into each of the central chambers with massive timber lintels supporting the stack above (Kennett and Smith 1980, fig 1, 100–1). The stack tapered to the roof, combining both chimney flues to a single opening. During the early 19th century the building was divided into a row of smaller cottages, at which time they were modified to accommodate smaller fireplaces within the original frame of the inglenook.

A similar arrangement was also recorded at Mavourn Farm, Bolnhurst (Kennett *et al.* 1986, 80–1). The south wing was of five bays with a chimney stack occupying the central bay with two backing fireplaces dividing the wing into two main chambers, each of two bays.

Modifying older buildings to accommodate more 'modern' needs is not a recent fashion in the construction industry and is commonplace for older buildings. A similar situation occurred at Vine House, Uppingham, which stood in 1657 and had been modified in Georgian times to accommodate a cast iron grate with deep recessed cupboards either side, and a mantelpiece above (Brown 2010, figs 4 and 22). At Vine House the fireplace was located on the adjoining gable between two cottages, the neighbouring cottage being built some time later without an inglenook.

Inglenooks have a long period of architectural use; it should be noted that the style was still being used in vernacular architecture during the 18th century. Indeed, the best candidate for the original form and layout of Building 2 was recorded at 57 Compton Avenue, Leagrave, prior to demolition in 1983 (Castle 1988, fig 1, plate A). This example comprised two thatched timber-framed single bay cottages under one roof, *c.*11.5m by 3.8m, dating post–1770, based on a coin embedded in mortar beneath a paving brick and contemporary to the foundation of the southern gable. A central chimney served two backing fireplaces, heating the dwellings on either side, with external and internal dimensions that compare favourably with the excavated example from Site M1C.

REVIEW OF PROJECT OBJECTIVES

In addition to the medieval evidence presented in Chapter 7, the occupation at Nuppings Green, Site M1C, provides a detailed investigation of a rural medieval pottery waste dump unlike other known pottery centres. This small probable potters' working site makes contributions to the advancement of medieval pottery studies by providing information on the range and types of wares being produced at a modest scale in Hertfordshire-type greyware. Analysis of historic maps and aerial photographs at Site M1C demonstrated that there was no relationship between the potter's location and the historic location of mapped settlement. The form and extent of Nuppings Green remains uncertain and has yet to be pinpointed.

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ORDNANCE SURVEY MAPS

Ordnance Survey 6" map, 1886 Bedfordshire XXIX.SW, National Library of Scotland

DIGITAL DATA PACKAGE

Additional data which supports this publication is avaliable at https://tinyurl.com/9781789692600-DigitalData

MOLA (Museum of London Archaeology) undertook extensive excavations during the construction of two separate, but adjacent road schemes, some 4.5km apart near Houghton Regis and Toddington, in south Central Bedfordshire. Taken as a whole, the excavations provide a detailed multi-period dataset for regional and national comparison.

The first evidence for occupation occurred in the middle/late Bronze Age comprising pits and clusters of postholes, including four-post and six-post structures. Two pit alignments, more than 2km apart, also indicate that land divisions were being established, and in the late Bronze Age/early Iron Age a significant new settlement emerged in the valley bottom. Parts of a further contemporary earlier-middle Iron Age settlement lay at the top of the valley but neither settlement extended into the Roman period. In the late Iron Age or early Roman period three or four new settlements emerged with occupation continuing into the late Roman period in at least one of these. Of particular interest was the recovery of two significant Aylesford-Swarling type cemeteries as well as a third cemetery which largely comprised unurned burials, including some busta, but with few accompanying grave goods.

In the late 7th-century a small probable Christian conversion open-ground inhumation cemetery was established with burials accompanied by a range of objects, including a rare work box, knives, brooches, chatelaine keys and a spearhead. Parts of three medieval settlements were uncovered including one with a potters' working area.

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