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BEDFORDSHIRE

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BEDFORDSHIRE ARCHAEOLOGICAL COUNCIL

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Cover: aerial photograph of medieval remains at Woburn Road, Marston Moretaine, looking west, 1990. Settlement earthworks north of road adjoining moat at Moreteyne Manor. Larger moat around The Old Rectory to south. Traces of ridge and furrow. Reproduced by kind permission of the Historic Environment Record, Bedfordshire County Council.
See p118 of this journal.

Contributors to *Bedfordshire Archaeology*

PATRICIA BAKER is currently completing a PhD on health care in the Roman army in the Department of Classics at the University of Newcastle. She previously studied Anthropology at Millersville University, Pennsylvania, and Classical Archaeology at Florida State. Her specific research interests relate to medicine in the Roman world and daily life in the Roman army.

ANTHONY BROWN, MA, FSA, MIFA is Staff Tutor in Archaeology in the Department of Adult Education at the University of Leicester. He has been closely involved with archaeology in Northamptonshire and has a particular interest in the development of the medieval landscape. With Christopher Taylor and adult education students he has surveyed many earthworks and conducted fieldwalking on several sites across northern Bedfordshire. The techniques are described in his book "Fieldwork for Archaeologists and Local Historians".

STEPHEN COLEMAN, BA, MIFA is a graduate of the University of Exeter. He is currently Historic Environment Information Officer for Bedfordshire County Council's Heritage and Environment Group with responsibility for the Historic Environment Record. He is also Secretary of the Medieval Settlement Research Group and a committee member of both the Bedford Archaeological and Local History Society and the Bedfordshire Local History Association. His main interests include landscape history.

JACKIE CRICK, BSc was employed as an Archaeological Supervisor with Bedfordshire County Archaeology Service. From 1987 she worked on many excavations in Bedfordshire, Buckinghamshire and Hertfordshire. In 1993 she graduated in Heritage Conservation from Bournemouth University but in 1998 left the archaeological profession to join the Civil Service.

MICHAEL DAWSON, MPhil, MIFA is a graduate of University College, Cardiff. Formerly Senior Archaeological Field Officer with the Bedfordshire County Archaeology Service, he undertook many rescue projects in the county from 1987. His main interest is the archaeology of Roman towns which

has involved him in fieldwork in Romania and Bulgaria. In 1998 he joined Samuel Rose Limited in Northamptonshire to establish and manage their archaeological consultancy.

ROBIN HOLGATE, BSc, DPhil, AMA, FSA, MIFA is Curator of Luton Museum. He undertook his archaeological education at the Universities of London and Oxford, and his doctoral thesis on Neolithic settlement of the Thames Basin was published as a British Archaeological Report. He was previously Field Officer for Prehistory with the Institute of Archaeology Field Unit, University College, London. Publications include articles on prehistoric Britain and editing the volume of papers on "Chiltern Archaeology: Recent Work".

REN HUDSPITH is a leading member of the Luton and District Archaeological Society and the Manshead Archaeological Society of Dunstable with a particular interest in landscape archaeology. For some years he has led an extensive fieldwalking programme across southern Bedfordshire which is regularly reported in the Manshead Magazine and South Midlands Archaeology. Many previously unknown sites have been identified and others dated.

MIKE LUKE, BSc is a graduate of the University of Wales (Cardiff). He is currently employed as a Project Officer with Bedfordshire County Archaeology Service. He has worked as a field archaeologist for the last thirteen years. His current interests include the archaeology of rural Iron Age and Roman settlements and the utilisation of Information Technology in archaeology.

JOSHUA POLLARD, BA, PhD is a lecturer in Archaeology and Prehistory at the University of Wales College, Newport. He studied at Cardiff University before going on to work variously as field archaeologist and academic in Cambridge, Newcastle and Belfast. His research interests largely focus on the British Neolithic, although he has worked and published on various aspects of archaeology.

DREW SHOTLIFF, MA is currently employed as a Project Manager with Bedfordshire County

Archaeology Service. He has studied both history and archaeology at the Universities of Oxford and Birmingham respectively. He has worked as a field archaeologist both within the UK and overseas. He is a member of the Medieval Settlement Research Group committee.

SEAN STEADMAN, BA is a graduate of the University of Birmingham. He is currently employed as a Project Officer with Bedfordshire County Archaeology Service. He has worked as a

field archaeologist for the last thirteen years. His current interests include the archaeology of towns and Public involvement in archaeology.

CHRISTOPHER TAYLOR, BA, FBA, FSA, MIFA formerly worked for the Royal Commission on the Historical Monuments of England, chiefly recording archaeological earthworks. He is a leading authority in the field of landscape history and interpretation and has written several books on many of its aspects.

Out of the Oven – David and Evelyn Baker

STEPHEN COLEMAN

This issue of the journal is the first since volume 18 not to appear under the editorial care of Evelyn Baker. Following local government reorganisation in 1997 and ensuing uncertainties over the future of the Bedfordshire County Archaeology Service (BCAS), which she managed, she decided to leave the County Council in June 1998 and simultaneously resign as Editor of *Bedfordshire Archaeology*.

Evelyn was Assistant Editor for volume 17, published in 1986, and took on the main role in May that year, overseeing the next five volumes and also the first two issues of the monograph series begun in 1994. During this time she, her Assistant Editors and the Editorial Sub-Committee had to steer the journal through some troubled waters. There were financial problems, including limited income, difficulties in raising grant aid for some papers and ever rising printing costs, delays to the receipt of many promised papers, partly responsible for an irregular publication programme, and a variety of production hiccups. Evelyn introduced the colour cover from volume 18 to boost its visual appeal and make it more attractive in bookshops. However, its largely academic content means it still has a restricted market and limited sales remain a challenge. The most significant change overseen by Evelyn was the adoption of new technologies, in particular computerisation, by the authors, editors and printers. Digital creation, transfer and manipulation of text and illustrations is now normal practice and though easing many aspects has not been without its own problems. Evelyn must be heartily thanked for her perseverance in sometimes trying circumstances and congratulated on maintaining and improving the journal's high standards.

Evelyn's own contributions to the journal as an author, apart from editorials, are to be found in the Bedford excavations volume, No. 13, 1979, in particular on Bedford Castle, and in volume 17 on other Bedford sites. However, these do not reflect her most significant work in Bedfordshire which concentrated on monastic sites; interim and other reports on these have been published elsewhere. Her work on Warden Abbey synthesised the results of antiquarian, amateur and professional excavations and brought attention to the high quality tile pavements discovered there, even in international publications such as *World Archaeology* and the *Rotterdam Papers*. This reflects one of Evelyn's main interests, medieval floor tiles: she has for some

time been involved with the National Medieval Floor Tile Census, serving as Secretary. Close to Leighton Buzzard she directed 13 years of nearly continuous excavations on Grove Priory, an alien priory of the Order of Fontevault founded on the Royal Manor there. One of the most extensive excavations of its kind, it will be published as an English Heritage monograph.

Evelyn originally trained in fine art and her artistic talents were utilised for a variety of publications and displays. These included *The Beginnings of Bedford* for the County Council, a popular account jointly produced in 1985 with her husband, David Baker. It featured her representation of medieval Bedford on the cover, shown complete on an accompanying poster. Evelyn also has great culinary expertise and a passion for recreating the dishes of past times with which she has surprised, intrigued and delighted many guests at home and visitors at public events. The latter also reflects another of Evelyn's interests, making archaeology accessible to the general public through open days, displays and other special events, activities she has strongly promoted.

Evelyn is not leaving archaeology but will be completing outstanding post-excavation projects besides having been elected as a member of the Institute of Field Archaeologist's Council and as Vice Chair responsible for their Standards Committee. She is also contributing to Historic Environment Conservation, the consultancy set up by David Baker after he left local government archaeology in March 1997 on reorganisation.

David was Bedfordshire's first County Archaeologist, one of the first in the country when appointed to the County Planning Department as Archaeological Liaison Officer in 1972. On local government reorganisation in 1974 David took the opportunity to create an integrated planning based historical conservation service. This encompassed both archaeology and the historic built environment and served all the local authorities in the county. It was an enlightened arrangement only achieved in a few counties since but now espoused by English Heritage, the Council for British Archaeology (CBA) and others as a model that should be followed.

However, this was a long way from David's first encounters with archaeology as a schoolboy volunteer at Verulamium and Bignor Roman Villa, continuing in the 1960's as photographer at Fishbourne Roman Palace and Portchester Castle

where he met Evelyn, then working as a draughtsman and finds assistant. Moving to Bedfordshire he taught history at Bedford School and then lectured at Portsmouth Polytechnic. At the same time he directed excavations at Elstow Abbey and in Bedford, particularly on the Castle site, from the mid 1960's until 1971. This was the beginning of over 30 years direct and fundamental contribution to the conservation, recording and promotion of the county's historic environment.

With the County Council David Baker's initiatives often placed Bedfordshire amongst the leaders of those local authorities who provided such services across the country. He began the second Sites and Monuments Record in Britain (the first to include buildings) and established a parish survey programme to enhance it and provide background on historic landscape development. Archaeological and historic buildings planning advice was provided to the District and Borough Councils and he created the professional rescue archaeology service which has now become BCAS. He convinced the County Council that they should make money available as grant aid to assist the repair and enhancement of listed buildings, sadly later lost to budget cuts, and also took advantage of government funding to introduce Town Schemes for similar work in the centres of several historic towns. More recently he also persuaded the County Council to take over St. Mary's Church in St. Mary's Street, Bedford, from the Redundant Churches Fund for conversion into an Archaeology Centre. It is now the home of BCAS with limited public access also provided. This was just one example of David's desire to secure an appropriate future for empty or abandoned listed structures in the county, including such fine buildings as Hinwick House at Podington, Moggerhanger House, and Houghton Hall in Houghton Regis. He was also tenacious in his pursuit of owners who failed to maintain significant listed properties such as The Roundhouse at Brogborough, Stotfold Mill and Maulden Mausoleum. Likewise he began the fight to return Canova's sculpture of The Three Graces to the temple designed for it in the Sculpture Gallery at Woburn Abbey after it was removed to be sold. Although its return was not achieved a national campaign halted the sculpture's sale abroad and led to its joint purchase by the Victoria and Albert Museum and the National Galleries of Scotland.

As an author David contributed to this journal on Elstow Abbey and on various sites in Bedford, to Château Gaillard on Bedfordshire's castles and to a variety of national journals and books on local authority heritage management or similar topics, a field in which he is a respected authority. In 1983 he

published his own book *Living With The Past - The Historic Environment* which dealt with emerging ideas, methods and planning frameworks for integrated approaches to conserving and preserving old buildings, sites and places. David's keen interest on such issues had already seen him contribute prominently beyond Bedfordshire, in particular influencing the development of local government archaeology through national bodies. In 1973 he was a founder member of the Association of County Archaeological Officers (now the Association of Local Government Archaeological Officers), becoming their Chairman for a time, and in 1982 of the Institute of Field Archaeologists, sitting on their first Council and their first Newsletter Editor. He helped to draft the DoE's Planning Policy Guidance Note 16 on Archaeology and Planning published in 1990, now the basis for most local government involvement in archaeology and the resulting contract fieldwork, and advised on Planning Policy Guidance Note 15 on Planning and the Historic Environment, 1994. Following these PPG's he was chiefly responsible for producing advisory booklets on *Model Briefs and Specifications for Archaeological Assessments and Field Evaluations* and *Analysis and Recording for the Conservation and Control of Works to Historic Buildings* for ACAO/ALGAO.

At various times David was also involved with the CBA and the Standing Conference of Archaeological Unit Managers, and he has sat on English Heritage's Cathedrals and Churches Advisory Committee and was Archaeological Advisor to the Forestry Commission. He is still a member of English Heritage's Ancient Monuments Advisory Committee and is the Archaeological Adviser to St. Albans Diocese.

With such a wealth of experience and high profile involvements nationally David has readily attracted commissions for consultancy work, including several from national bodies. However, David's departure from Bedfordshire County Council has meant the end of an era and coincides with a period when the forces of competitive tendering, local government reorganisation, externalisation of services to the private sector and increasing commercialisation are causing fragmentation of the integrated service he created. Some of David's considerable achievements are now threatened but we will have to wait and see if this proves unfortunate for Bedfordshire's historic environment.

The Bedfordshire Archaeological Council thank David and Evelyn for their contribution to the county over the years and wish them well as they follow new directions and face new challenges.

A later Neolithic and Bronze Age mortuary complex and Iron Age settlement at the Bunyan Centre, Bedford

SEAN STEADMAN

With contributions by John La Niece and Anna Slowikowski, Sharon Naughton and Charlotte Roberts and Robert G Scaife

Illustrations by Lisa Padilla and Cecily Marshall

SUMMARY

Archaeological recording of a crop mark ring ditch and enclosure on the outskirts of Bedford uncovered a ritual complex of later Neolithic to Early Bronze Age date and evidence of Early/Middle Iron Age domestic and ritual activity. The remains of an oval barrow covering a crouched inhumation surrounded by a U-shape ditch were discovered in the south of the site. Traces of a former gravel mound were preserved within the ditch. The barrow was partially destroyed by a hengiform monument with an entrance to the west and a concentric internal gully. Two inhumations were discovered within the internal ring, one of which was accompanied by an almost complete Beaker vessel. In its final phase the outer ring was re-excavated and the entrance was causewayed. Important environmental information was recovered from the fills of the graves including, possibly, the earliest occurrence of peas in this country.

The Iron Age occupation in the north of the site appears to have originated as an unenclosed settlement comprising post-built structures and a well or watering hole. A rectangular ditched enclosure with a south facing entrance partially encroached on the silted up well.

INTRODUCTION

Excavations were carried out in advance of housing development on the site of a cropmark ring ditch on the outskirts of Bedford identified on an aerial photograph taken in 1959 (CUCAP YT26). An archaeological field evaluation confirmed the survival of the ring ditch but did not reveal its true nature or extent (BCAS 1995). Bedfordshire County Archaeology Service was subsequently commissioned to carry out full scale excavation on behalf of Bedfordshire County Council's Property-care and Bedford Borough Council. The excavation uncovered a Neolithic oval barrow, a hengiform monument and evidence of a later prehistoric settlement.

TOPOGRAPHY (Fig 1)

The site is located on the south eastern edge of Bedford, c.1.5km from the town centre. It lies within the floodplain of the River Great Ouse close to Elstow Brook at c.27.4m OD and is essentially flat. The soils comprise gleyed brown earths, derived from riverine sands and gravels of the Ouse terraces, overlying Oxford Clay.

METHODOLOGY

An area of c.0.54ha was stripped of topsoil using a mechanical excavator operating under archaeological supervision. Two concentrations of archaeological features, c.40m apart, Areas A and B (Fig 2), were cleaned by hand and all visible features recorded. A baulk, c.1m wide was left standing over the southern half of the ring ditch. This was gradually removed by hand once the section had been recorded and it became clear that there were no traces of an internal mound surviving. Selected sections were excavated across the two ditches to investigate the nature and sequence of their infilling. All visible features within Area A were investigated as were all of the linear features and most of the pits or post holes in Area B.

Archaeological features and deposits (contexts) were assigned an individual number in a single sequence. Numbers in brackets within the text refer to the original context numbers issued on site. Where features encountered during the field evaluation were re-examined and separate numbers issued, both numbers are given. Within this report context numbers referring to cut features are expressed [**], infilling deposits or layers are expressed (**).

The site code used during the excavation was BC95. The archive of finds and records will be lodged with Bedford Museum, Accession No 1995/97.

One of the aims of this excavation was to establish the environmental background for future work on sites of this period in the Ouse Valley. Samples taken during the evaluation yielded

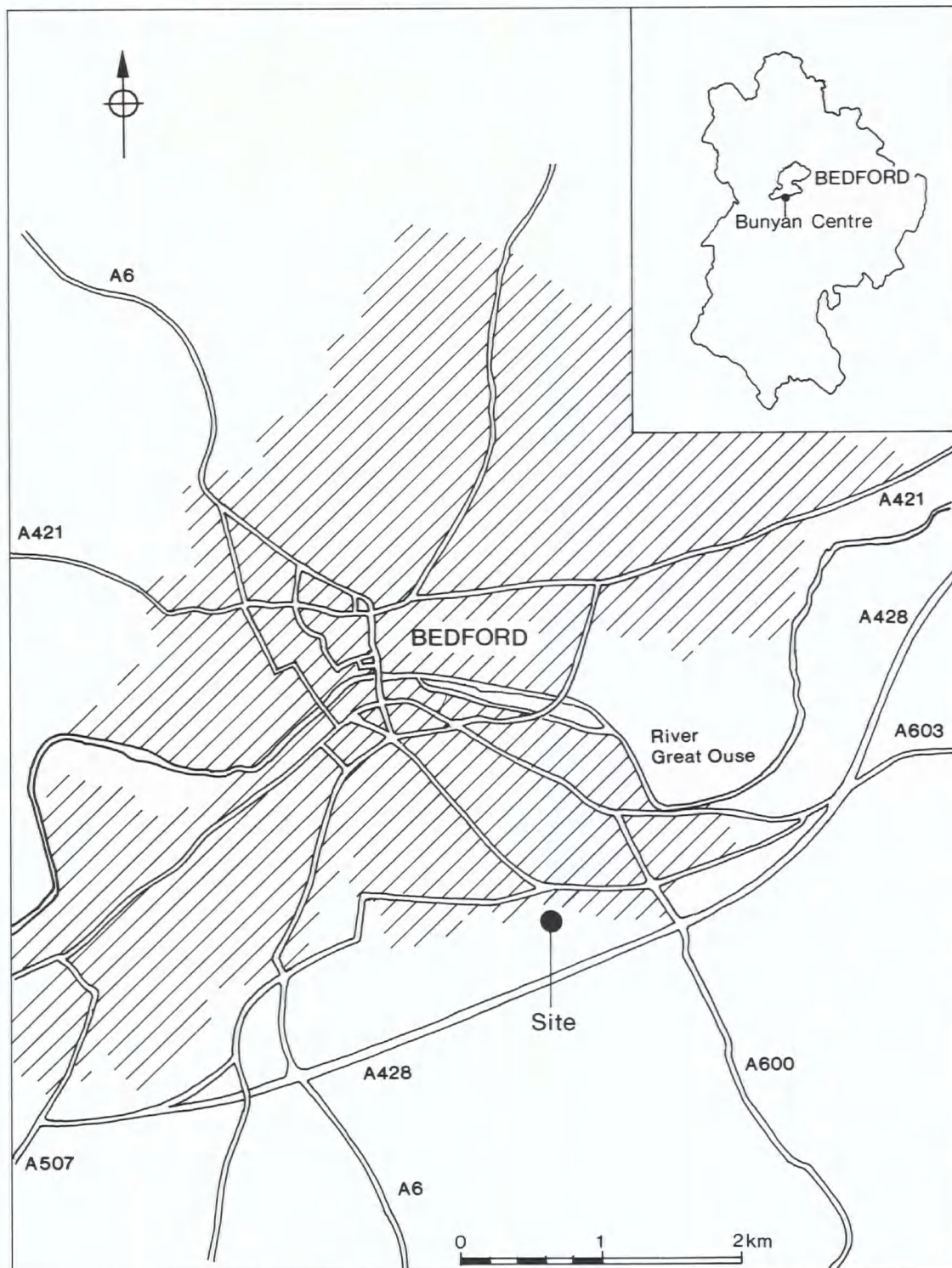


Figure 1 Site Location

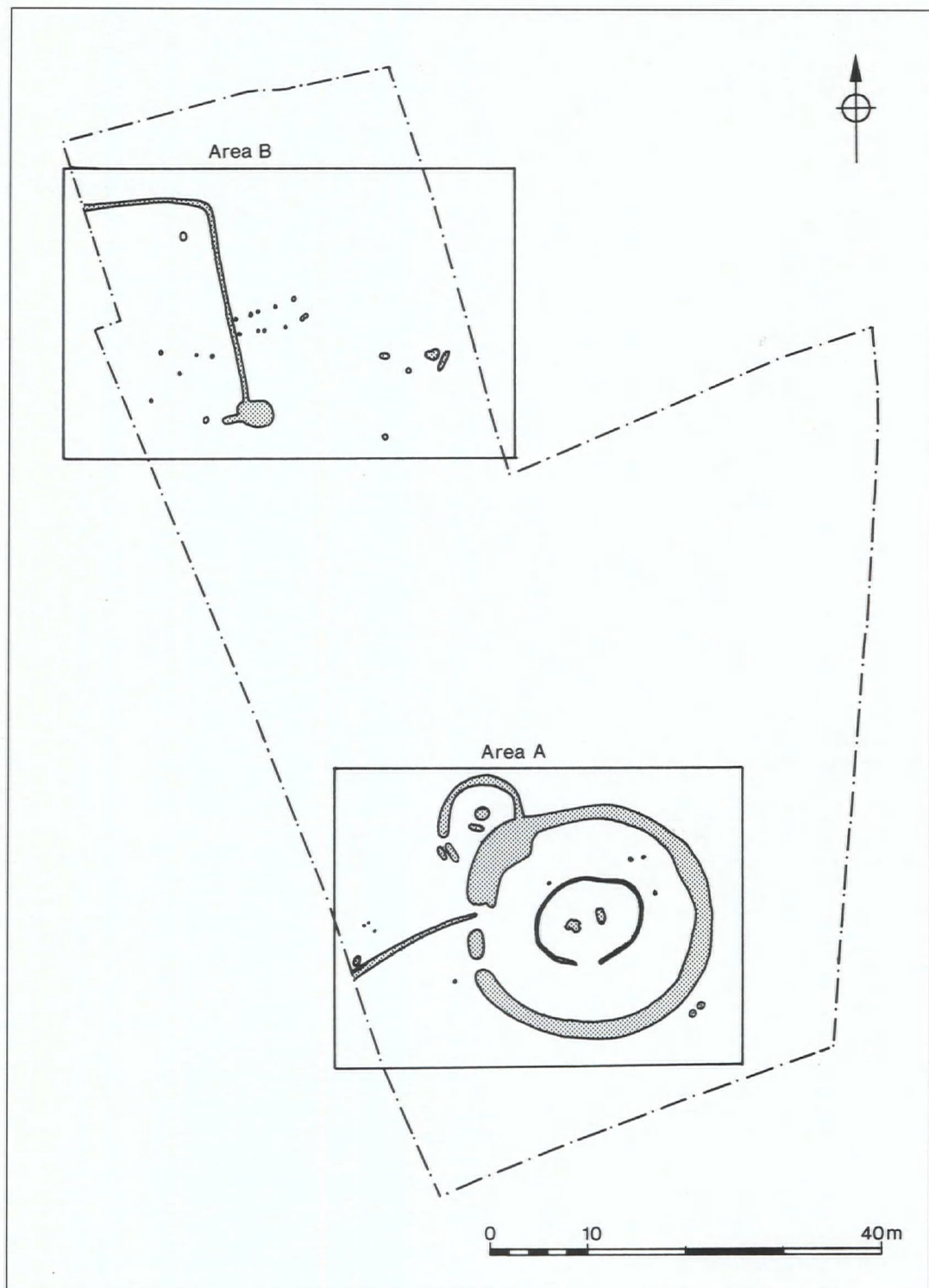


Figure 2 Excavated areas A and B

sizeable quantities of charcoal though, significantly, molluscs and animal bone were absent. Consequently, a programme of environmental sampling was incorporated into the excavation strategy. Bulk samples were taken from all identifiable contexts within the sections across the ring ditch and sieved on site. Selected samples were also taken from features with apparently significant deposits, such as the graves, and processed under laboratory conditions.

Overall, despite the extensive sampling process employed during the excavation, charred plant remains were few from all periods; insufficient quantities of charcoal or carbonised grains were recovered for radio carbon dating. Samples taken from the fills of the graves yielded flint artefacts and waste flakes that would not otherwise have been found. In general, however, few artefacts were recovered from excavated features. The highly fragmented remains of at least four species of animal were recovered from eight contexts but only three fragments were identifiable to species. The limited nature of this assemblage precludes any discussion.

A well or watering-hole was partially excavated during the evaluation of the site (BCAS 1995). Further investigation of this feature was intended to form an important aspect of the set-piece excavation. However, its depth, coupled with the exceptionally wet conditions, meant that it could not be excavated fully for safety reasons.

ARCHAEOLOGICAL BACKGROUND

The site is located in an area which has produced prehistoric material dating from the Palaeolithic onwards. Extensive evidence of later prehistoric and Roman settlement was uncovered during excavations along the line of the Bedford Southern Bypass at Village Farm to the west, Eastcotts to the east and Bunyans Farm to the south (Shepherd *in prep.*).

Late Iron Age and Roman occupation was revealed during construction of the adjacent John Bunyan School immediately to the west (Dring 1972) and Roman kiln sites have been discovered to the south and west (Dring 1971).

THE EXCAVATION RESULTS

EARLY PREHISTORY

Tree-Throw Holes (see Fig 10)

A number of tree throw holes were discovered within Area B, which might indicate land clearance

in the north of the site. The finds suggest an early prehistoric date, although some later prehistoric material was also recovered which is likely to have been introduced by later activity.

Tree-throw holes have a distinctive profile and examples from the Thames Valley have been described by Robinson (Robinson 1992). Several were identified at the Bunyan Centre but the majority were not excavated due to constraints of time and resources. A tree-throw [75] excavated towards the centre of the site contained two fills. A layer of sandy silt flecked with charcoal (74) in the base of the pit was overlain by a charcoal-rich deposit of silty sand (73). An undiagnostic early prehistoric pottery sherd, a scraper and waste flake were recovered from the lower fill (74) of tree-throw hole [75], while a late Iron Age 'Belgic' sherd, probably intrusive, was found within its upper fill (73), together with an end scraper. A few *Triticum spelta* type grains recovered from the upper fill (73) of tree-throw hole [75] provide evidence of cultivation. These could be emmer wheat from any period represented or spelt wheat of Iron Age or Romano-British date.

A tree-throw hole [271] was also observed in section during the investigation of the well. Four sherds of a single early prehistoric vessel were recovered from the upper fill (269) of tree-throw hole [271], which was truncated by the Iron Age well [262] (see below). Three sherds of early Iron Age pottery from the lower fill (270) of tree-throw hole [271] were probably derived from the upper fills of the well.

An elongated oval pit [312], located in the south of the site (Area A), contained reddish brown, clay silt (313) with few inclusions, suggesting that this was a periglacial feature. Similar features were located outside the hengiform monument in Area A.

The Oval Barrow (Fig 3)

The earliest evidence of activity was a small oval barrow located in the south of the site (Area A). It comprised a crouched inhumation and an associated pit enclosed within a horseshoe-shaped ditch with a wide opening to the south. The gravelly fill of the pits indicates that the central burial was covered by a mound of material quarried from the ditch. Several features to the south, including pits, gullies and a spread of Grooved ware pottery and flints, may have been associated with this monument.

A loosely crouched skeleton (SK368) was laid in the base of a central grave (Fig 4). The sub-square grave pit [360], c.1.3m across, with vertical sides

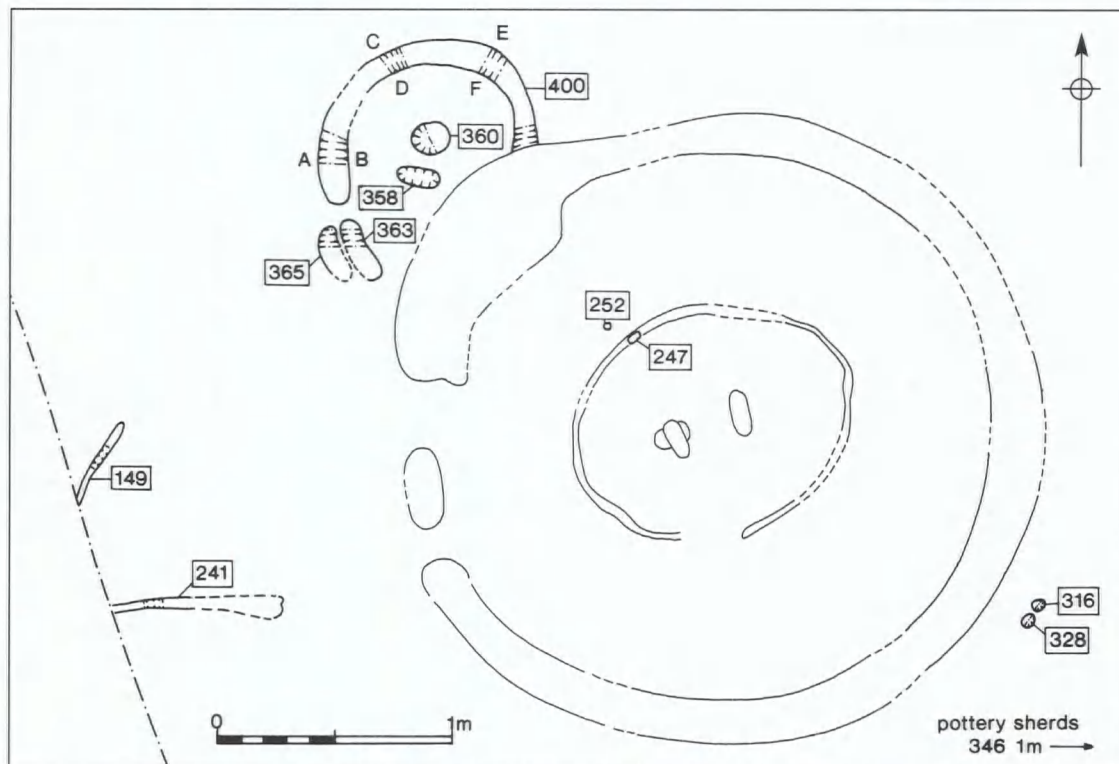


Figure 3 Oval barrow and associated features

and a flattened base, was cut into the gravel subsoil to a depth of c.0.4m. The skeleton was laid on its right side with the head to the north-west, facing east. A sandy silt stain (367) in the base of the grave may have derived from the inhumation. The excavation of skeleton (SK368) was undertaken rapidly due to water seepage; only the shafts of the long bones had survived intact, and the forearm, vertebrae and pelvis were very fragmentary, while the scapulae, ribs, sacrum, hands and feet were almost entirely absent. Analysis suggests that this individual was an adult male, 171.17cm tall with no

evident pathology. The bone showed evidence of root erosion but no cut marks or gnawing, suggesting burial occurred soon after death.

A virtually stone-free deposit of greyish brown silt (366) covered the skeleton (SK368), and a layer of silty gravel (361) completed the backfilling. The majority of the flints recovered from the central grave [360] derived from fill (366) directly over the inhumation (Table 1). The assemblage comprised mainly flakes and chips but also included an unfinished leaf-shaped arrowhead and a utilised flake.

Flint types	Contexts						
	339	361	362	366	401	346	248
complete flake	1	15	4	6		8	2
chip flake				24			
retouched flake						1	
scraper						1	
utilised flake				1			
chisel arrow head					1		
leaf arrow head				1			
(unfinished)							

Table 1 Flint types by context

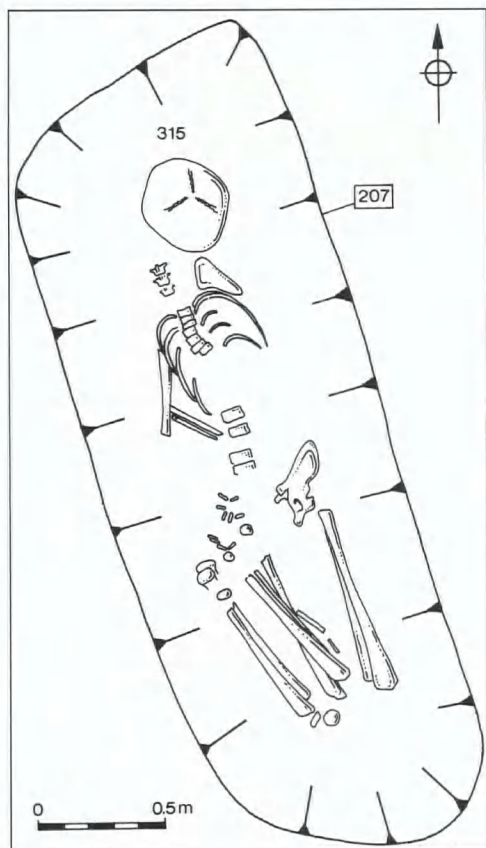


Figure 4 Inhumation SK 368

A number of charred crop plants were recovered from the grave fills (Table 2). The discovery of peas, *Pisum*, within the charred plant remains from the grave is particularly significant. It is widely held that pulses were introduced during the Neolithic along with grain but their remains are rare from all periods. This important record is discussed further below. Evidence of cultivation is provided by a grain of emmer wheat *Triticum dicoccum* (Schubl.), with characteristic 'tear drop shape', identified according to the criteria of Jacomet (1987) and a grain of emmer wheat or spelt, *Triticum spelta* or *dicoccum* type, which is more likely to be the former as spelt was introduced during the late Bronze Age/Iron Age. The few weeds present included wild grasses, *Poaceae*, with vetches, *Vicia/Lathyrus* and brome-rye, *Bromus/Avena*, which are sometimes considered a cultigen. Root tubers of oat-grass, *Arrhenatherum elatius* var *bulbosum*, (Willd) St Amans were also identified and are discussed below.

An elongated oval pit [358], less than a metre to the south of grave [360], contained a single sandy silt and gravel fill (359).

The oval barrow ditch [400] enclosed an area c.9m across. Its western arm terminated in a squared butt-end whilst the eastern terminal had been truncated in antiquity. The opening to the south was at least 5m across but if the ditch had originally been symmetrical then this entrance may have been as much as 7m wide. Four sections of the ditch were

Context	Sample	Species present	Quantity
359	55	<i>Pisum sativum</i>	1
361	56	<i>Corylus avellana</i> nut fragment	1
		cf. <i>Pisum</i>	1
		<i>Triticum dicoccum/spelta</i> type (c)	1
		<i>Bromus/Avena</i> (c)	1
		Indeterminate fragment (c)	1
		Wild <i>Poaceae</i> (c)	1
362	58	<i>Triticum dicoccum</i> (c)	1
		Indeterminate frags. (c)	1
		<i>Poaceae</i> wild (c)	2
		<i>Vicia/Lathyrus</i> type	2
		<i>Pisum sativum</i>	1
		<i>Arrhenatherum</i> tuber	4
366	58	Indeterminate fragment (c)	1

Table 2 Plant remains from the fills of grave [360]

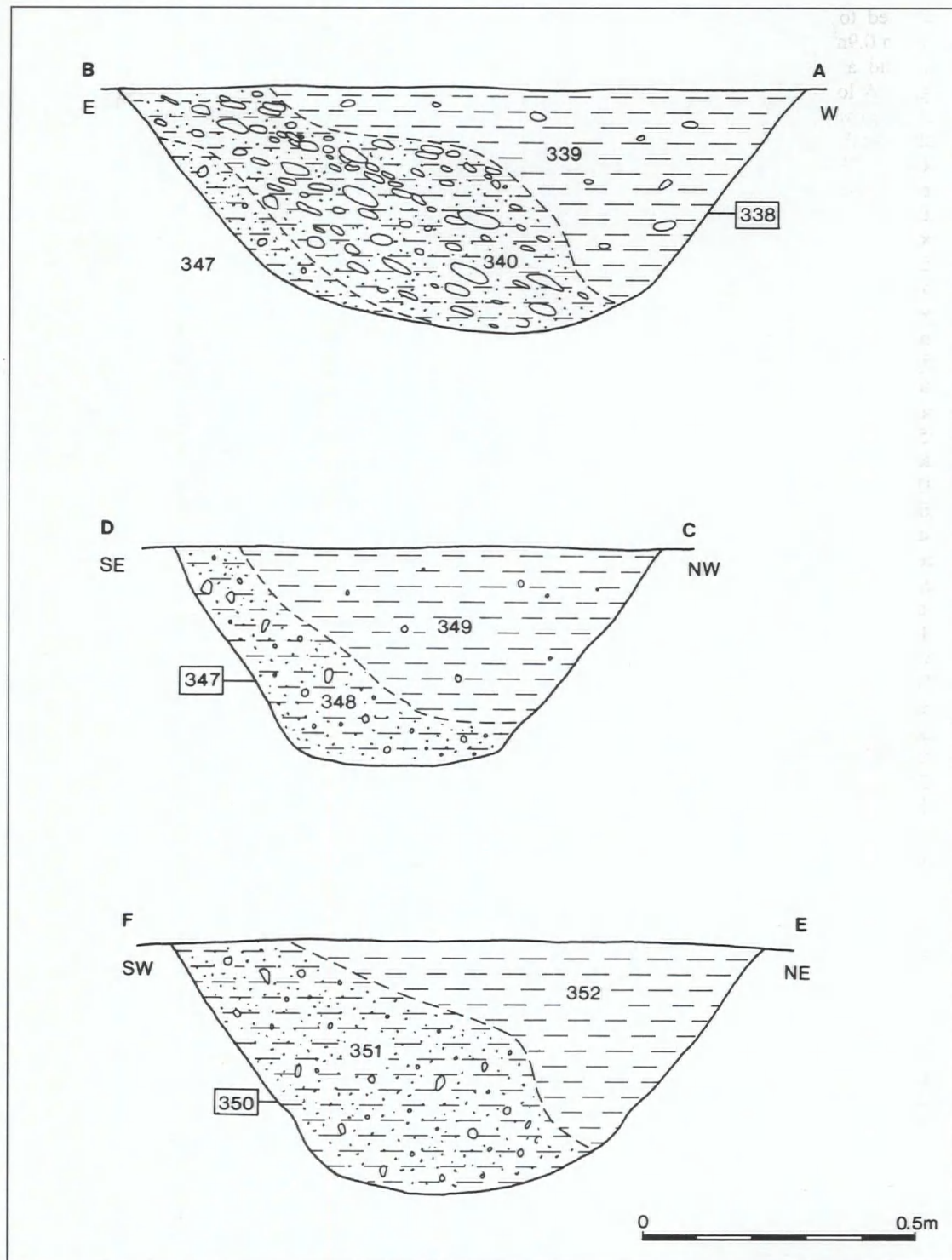


Figure 5 Sections through oval barrow ditch

excavated to reveal an angular U-shaped profile between 0.9m and 1.26m wide with steeply sloped sides and a slightly rounded base c.0.45m deep (Fig 5). A localised deposit of dark brown, sandy silt (341) overlaid the internal face of the western ditch but otherwise a sandy silt and gravel deposit (340, 348, 351, 354), extending over the internal face and base of the ditch, was encountered in each of the four sections. A relatively stone-free silty deposit (339, 349, 352, 353, 401) completed the filling of the ditch. A late Neolithic chisel arrowhead was discovered on the surface of the uppermost fill (401) of the barrow ditch [400]. Two elongated oval pits extended the line of the ditch on a slightly curved north to south-west alignment. The eastern pit [363] contained a moderately stony deposit of reddish brown, sandy silt (362) while pit [365], located immediately to the west, contained yellowish brown, silty sand and gravel (364).

The approach to the barrow may have been defined by two short gullies extending from the western limit of the excavation. Gully [241] was traced over a length of 7m on an east to west orientation. Gully [149], to the north, extended 4m on a roughly south-west to north-east alignment. Mid brown, sandy silt deposits (242, 150) filled the two gullies.

Two pairs of pits, backfilled with burnt material, were located to the south east of the barrow. A truncated pit [247], discovered in the base of a later feature, may have been paired with an irregular pit [252] c.1m to the north-west. Both pits contained similar sandy clay deposits with charcoal and fired clay or daub inclusions. Two flakes were recovered from the fill (248) of pit [247]. Pits [316, 318], to the south-east, contained sandy silt flecked with charcoal. Two sherds of undiagnostic prehistoric pottery were found in the fill (317) of pit [316]. A small quantity of hazel nut fragments (*Corylus avellana* L) recovered from the fills of pit [247] and pit [316] may relate to the charcoal present in the fill and indicate the local presence of scrub or woodland.

A concentration of heavily abraded Grooved ware pottery and struck flints was discovered on the surface of the natural subsoil in the south eastern corner of the site (346). The provenance of these finds remains unclear as there was no indication of truncated features within the natural subsoil or adjacent section. The 73 sherds of Grooved ware pottery, although mainly tiny sherds, may represent at least three vessels (Fig 11, Cat nos 1-3), and were possibly associated with the barrow. An end scraper

and a retouched flake were also recovered from this spread. The Grooved ware pottery, which is similar to the Durrington walls style (Wainwright and Longworth 1971), can be dated from the late Neolithic to the early Bronze Age. Similar deposits of Neolithic pottery and lithic artefacts have been discovered in small pits associated with Neolithic barrows elsewhere (Phillips and Thomas 1987). Although they are usually found closer to the barrow the proximity of the Bunyan Centre deposits suggests that they fall into the same pattern.

THE HENGIFORM MONUMENT

The eastern arm of the oval barrow ditch was partially cut away by an hengiform enclosure with an entrance way to the west. The enclosure [396] was c.25m in diameter with an opening to the west c.5m across, defined by rounded ditch terminals. Ten separate sections were excavated across the ditch and three phases were identified, although only the latest was continuous around the entire circuit. There was no trace of an internal mound but evidence for an external bank may have survived in the north west quarter of the ring.

Several features were discovered within the interior and immediately to the west of the entrance to the hengiform monument. Few relationships could be established between the various elements and the surviving evidence can be interpreted in a number of ways. The development of the hengiform monument and the other structural elements is described by three broad phases. The development of the mortuary complex as a whole is discussed below and alternative models are suggested.

Phase One (Fig 6)

The hengiform ditch replaced or incorporated the oval barrow. An unaccompanied burial and associated pit in the central area may have been buried beneath an earth mound defined by a polygonal gully. Parallel lines of post holes may have formed a monumental approach to the entranceway.

In its earliest phase the ditch had an angular U-shaped profile which was traced around the northern arc of the ring and may have survived in the area of the southern ditch terminal. It was heavily truncated by later recutting and consequently its dimensions and extent could only be partially recovered. The composition of its infilling suggests rapid erosion of the natural gravels.

The surviving ditch profiles varied between 1m and 2.5m wide and 0.6m to 0.85m deep, typically,

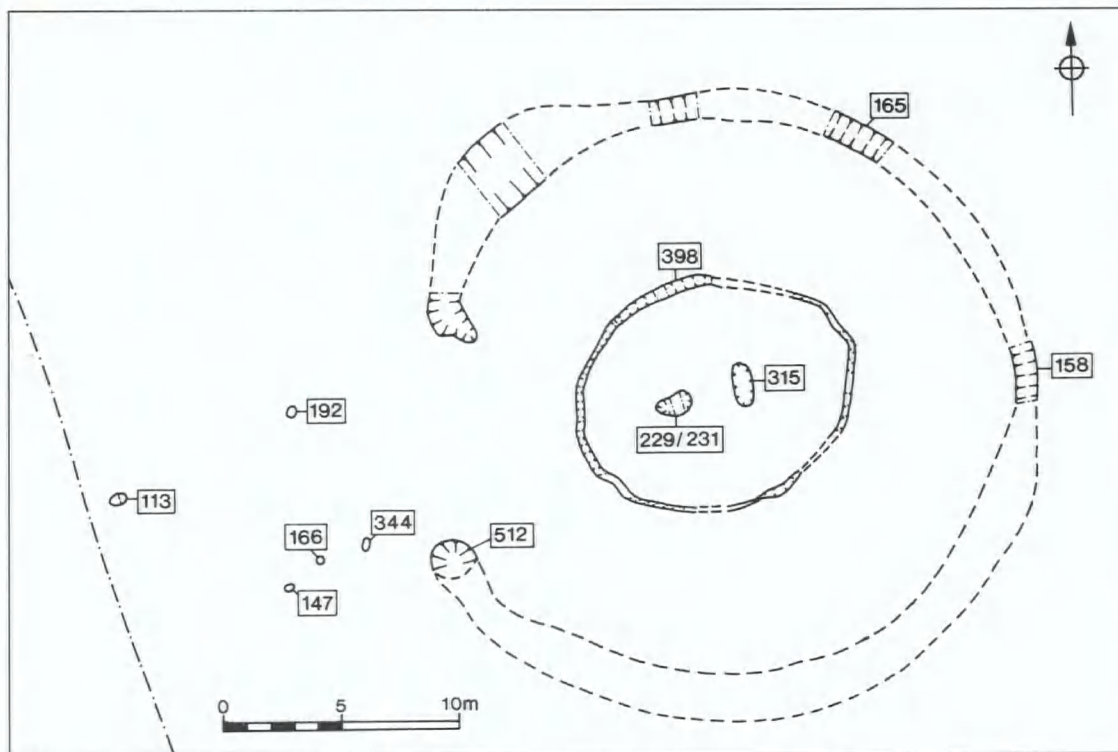


Figure 6 Hengiform monument: *Phase One*

with only a single infilling deposit of silty clay or sand with gravel. A slightly different deposition pattern was observed in the north-eastern quarter of the ditch circuit. A layer of dark grey gravel (197), less than 0.1m thick, overlaid the base of ditch cut [165] and above this, an homogeneous deposit of reddish brown, sand and gravel (196) completed the infilling. A deposit of mid brown, sandy silt (137) sparsely flecked with charcoal overlaid the base and external face of ditch [158] to the south-east. The fill contained a single flint waste flake. Above this a band of light yellowish brown, sand silt and gravel (153) appeared to have eroded into the ditch from the outside. A similar pattern was observed in a section excavated close to the southern ditch terminal. The ditch cut [512] was c. 2.2m wide with steeply sloped sides and an inclined base 0.7m deep. It contained a single homogeneous fill of reddish brown, sandy silt and gravel (306). This ditch cut was not identified in the opposing section c.2m to the north which suggests that the entrance was slightly wider in this earliest phase.

The internal polygonal gully [398] enclosed an area c.9m x 7m with its long axis aligned on the

entrance to the hengiform monument. The gully was typically 0.4m wide and 0.1m deep with evenly sloped, slightly concave sides and a rounded base. Its silty sand/clay fill (399) was flecked with charcoal. A single beaker body sherd with horizontal incised decoration (Fig 11, Cat no 4) and two undiagnostic sherds were recovered from fills (240, 244), and a single flint waste flake from fill (227). A single nut fragment (*Corylus avellana*) was also recovered from the latter (Table 3). A sub-rectangular grave [315] orientated north-north-west to south-south-east was located just east of the centre of the polygonal enclosure. It was 1.85m long and 0.8m wide with vertical sides and a flattish base 0.6m deep cut into the gravel subsoil. A supine sub-adult skeleton (SK314) of indeterminate sex and stature, aged c.14 years and six months (+/-18 months) at death, was laid in the base of the grave with the head to the south and the lower legs drawn up behind (Fig 7). Preservation of the skeleton (SK314) was quite good due to the depth of the burial, with most of the skeleton recovered. Pathological conditions were apparent in the dentition. Enamel hypoplasias on the mandibular canines

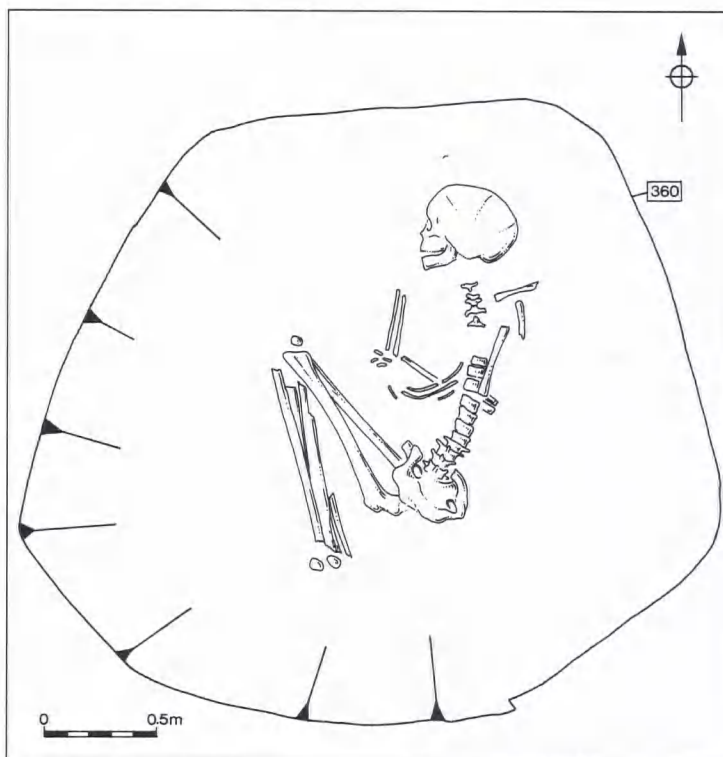


Figure 7 Inhumation SK 314

indicate that this individual suffered some form of childhood trauma, such as malnutrition or illness, which temporarily arrested growth of the enamel. A supernumerary tooth was visible in the maxilla and the third maxillary molars were absent indicating congenital abnormality.

The grave was backfilled with greyish brown, gravelly silt (308) flecked with charcoal. Dark brown silt (249) infilled the settlement hollow in the top of the backfill. A single sherd of beaker pottery (Fig 11, 5) and grains of bread wheat/club wheat type (*Triticum aestivum*), a few hazel nut fragments (*Corylus avellana*) and *Arrhenatherum* tubers were recovered from (308). The flint assemblage from the grave fills contained a quantity of flake debitage (21 pieces).

To the west of grave [315], an oval pit [229/231] cut into the gravel subsoil was probably associated with the inhumation rite. It was c.1.7m long and 0.55m wide with uneven sides and base between 0.06 and 0.13m deep. Its sandy silt fill (228/230) was flecked with charcoal but contained few stones. A sherd of 'fingernail-rusticated' domestic beaker ware was recovered from the fill of pit [229] along

with a small quantity (8 flakes) of flint debitage. Grains of bread wheat/club wheat type (*Triticum aestivum*) were also recovered from the fill of pit [229].

Three steep-sided pits or post holes [166, 344, 147] formed a line extending south-west from the southern ditch terminal. Their fills (148, 345, 168) of silty clay or sand contained charcoal and traces of burning. Two post holes [113, 192] in the base of a later gully may predate its construction and form a second line extending from the northern ditch terminal. A single waste flake was recovered from the fill of post hole [113].

Phase Two (Fig 8)

Following its initial rapid infilling the hengiform ditch appears to have undergone a prolonged period of consolidation represented by mixed deposits occupying a broad U-shaped channel up to 1.8m wide and 0.85m deep. Truncation caused by the final phase of activity prevented this consolidation phase being traced continuously around the enclosure.

Context	Sample	Species present	Quantity
227	28	<i>Corylus avellana</i> nut frag.	1
311	48	Indeterminate frags. (c)	2
249	36	<i>Corylus avellana</i> nut frag.	1
308	46	<i>Triticum aestivum</i> type (c)	1
		<i>Corylus avellana</i> nut frag	2
		Awn fragment	1
		Indeterminate fragments. (c)	2
		<i>Arrhenatherum</i>	2
228	29	<i>Triticum</i> cf. <i>aestivum</i>	1
230	30	<i>Arrhenatherum</i> Tuber	3

Table 3 Plant remains from the polygonal gully [398], the flexed burial [315], and associated pit [229]

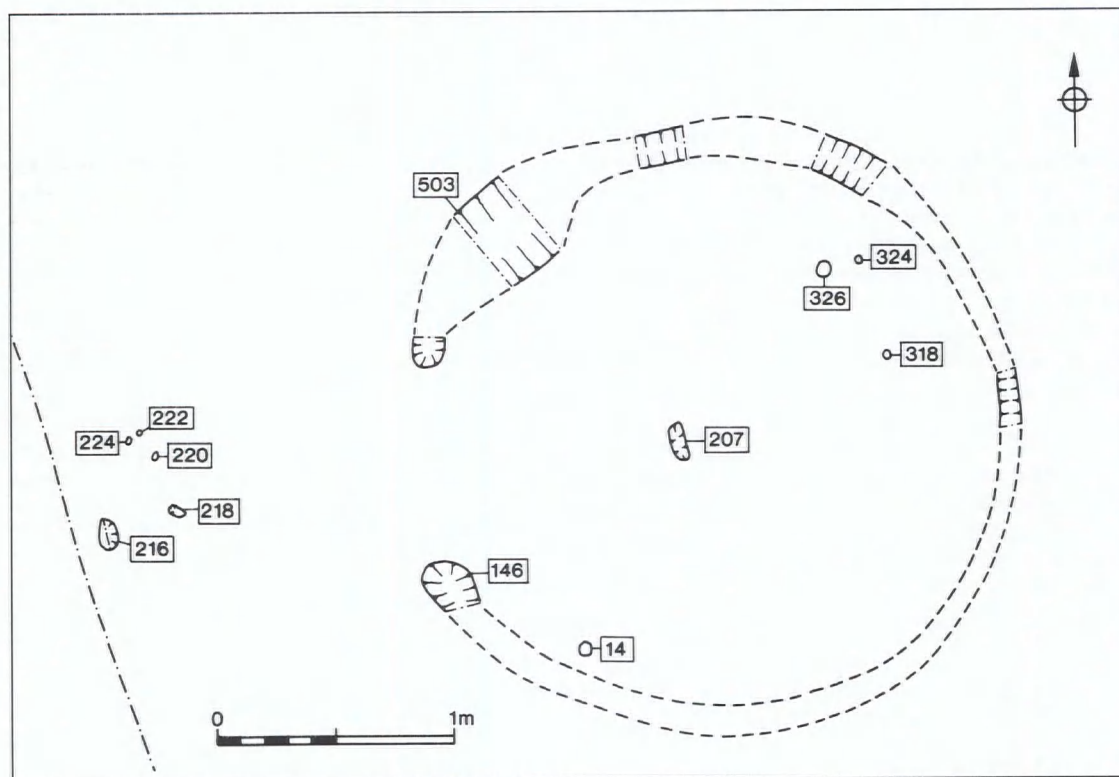


Figure 8 Hengiform monument: Phase Two

In the north-west of the circuit the ditch [503] had degenerated into a broad, U-shape profile over 4m wide at the top with irregular sides broken or weathered back to a shallow angle and a poorly defined base c. 0.5m deep. Its silty loam fill (203) was stained with manganese, which may indicate periodic saturation. A single early Iron Age pottery sherd was recovered from the consolidation layer (128) within the enclosure ditch [503]. In the north and north-east of the ring, deposits of light to mid grey silty clay (234) and blue grey, clay (195) were encountered within cuts [505] and [508] respectively. A deposit of pale yellowish brown, silt (145) was encountered adjacent to the southern terminal [146].

A second grave [207], aligned parallel to grave [315], cut into the fill of pit [229/231]. It was 1.67m long with steeply sloped sides and a flattish base 0.08m deep. The fragmentary remains of a crouched inhumation (SK 215), laid on its left side with the head to the south, were visible within the fill of the grave. The skull appeared as no more than a stain on the ground, while the lower limb bones disintegrated on lifting. The majority of the dentition was recovered by sieving and showed that this individual was an adult.

An almost complete 'late style' beaker (205), with comb impressed decoration (Fig 11, Cat no 7), was placed at the foot of the grave, its fragmented condition probably resulting from plough damage. 'Late style' beaker were first appeared in this region around 1700bc, started to decline by 1600bc and probably disappeared close to 1500bc. (Gibson 1986, 33-34). The fill of the grave (206) was flecked with charcoal.

Two beaker ware sherds with impressed 'fingernail-rusticated' decoration (Fig 11, Cat no 6) were recovered from the fill (206) overlying

inhumation (SK215). The fact that similar sherds were recovered from the underlying pit suggests that the sherds from Grave [207] might be residual. This deposit also yielded an unfinished, or crudely fashioned, barbed and tanged arrowhead.

A single fragment of Emmer wheat or spelt (*Triticum spelta/dicoccum*) type, more likely the latter, was identified within the indeterminate grain fragments present in the six samples taken from the grave fills (Table 4). The hazel nut fragments (*Corylus avellana* L) relate to the charcoal present in the grave fill and are indicative of the local presence of scrub or woodland.

Four roughly circular pits or post holes [14, 318, 324, 326] were located in the area between the enclosure ditch and the polygonal gully. Three small post holes [220, 222, 224] were uncovered to the west of the northern ditch terminal and two larger oval pits [216, 218] were located opposite the entrance. These features all contained sandy silts with few inclusions. In contrast to the earlier pits they were not backfilled with domestic rubbish. It is possible therefore, that they were left to silt up naturally. Their function remains unclear.

No finds were recovered from any of the remaining features.

Phase Three (Fig 9)

Following the period of consolidation identified in Phase Two the hengiform monument was re-established with a rounded U-shaped profile ditch. The entrance was modified at this time by the insertion of an oval pit [126] to create two narrow causeways and the addition of a flanking ditch [402] leading to the northern ditch terminal.

In its final phase, the penannular enclosure ditch varied from 1.6m to 2.25m wide and from 0.35 m to 0.7m deep. A layer of yellowish or orange brown,

Context	Sample	Species present	Quantity
329	23	<i>Corylus avellana</i> nut frag.	1
206	23/24	<i>Triticum spelta</i> type (c)	1
		Indeterminate whole (c)	2
		Indeterminate frag. (c)	1
		<i>Corylus avellana</i> nut fragments	5
215	25/26/27	<i>Corylus avellana</i> nut fragments	9
		<i>Polygonum aviculare</i>	1
		Indeterminate whole (c)	1

Table 4 Charred plant remains from the Beaker burial

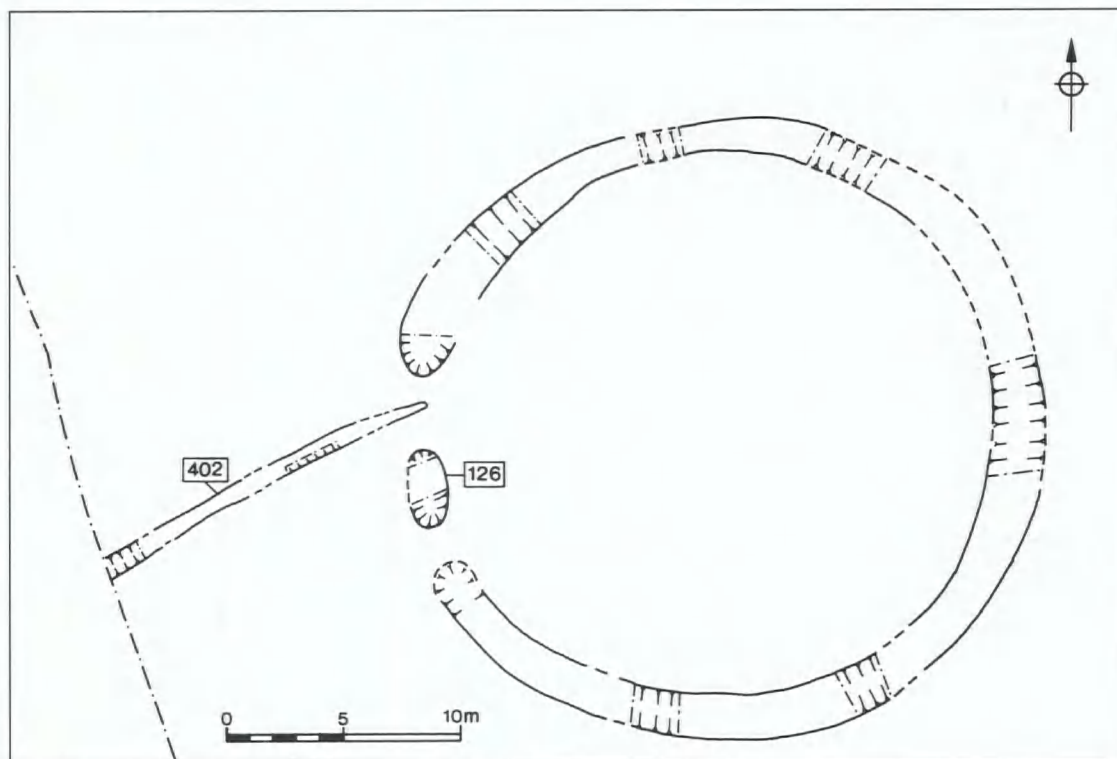


Figure 9 Hengiform monument: *Phase Three*

sandy silt and gravel overlying the base of the ditch was traced throughout almost the length of the circuit, and was only absent in the southern terminal. Brown silts of varying hues completed the infilling of the ditch. Early Iron Age pottery was recovered from the fill (209) of this ditch. A single crushed late Iron Age sherd, weighing only 1g, was recovered from fill (160) and is likely to be intrusive. The flint assemblage from these same fills, nine pieces in total, included cores, blade and flake fragments and a backed knife. All would appear to be residual. Twenty-nine fragments of fired clay, or daub, were also recovered from (209). Few plant remains were evident from the consolidation layer in the top of the hengiform ditch. A single grain of bread or club wheat (*Triticum aestivum*) and a single charred grape pip (*Vitis vinifera*) were represented.

The elongated oval pit [126] in the entrance to the enclosure was 2.8m long and 1.5m wide with steep, slightly concave, sides and a rounded base 0.5m deep. A layer of yellowish brown, silty sand and gravel (125) in the base of the pit was overlain by a

deposit of yellowish brown, silty sand (123).

The narrow ditch or gully [402] extended c.15.5m from the western baulk and terminated adjacent to the northern entrance terminal. The U-shaped profile ditch was 1.08m wide at its western extent tapering to c.0.85m wide to the east. Its concave sides and base cut into the gravel subsoil to a maximum depth of 0.36m. A layer of silty sand and gravel (112) covered the base of the cut, and a deposit of mid brown, sandy silt (111) with lenses of gravel completed the infilling. These fills contained three waste flakes and a core. A single sherd of early Iron Age pottery was recovered from the unexcavated surface of ditch [402].

The marked similarity between the fills of these features and that of the hengiform ditch in its final phase suggests that they are contemporary.

DISCUSSION

The earliest evidence of human activity at the Bunyan Centre may be the tree throw holes. These are a common feature of sites on gravel but it is rarely possible to distinguish between natural forces

and deliberate felling (Moore and Jennings 1992). The presence of pottery sherds and flint flakes indicates human activity but need not imply clearance as the hollow formed by a fallen tree and the shelter of its root ball may well have been a convenient activity area. Nor can the finds be used to provide anything more specific than a *terminus ante quem* of the early Iron Age, as they could easily have been redeposited. It is impossible, therefore, to determine whether this episode of clearance is contemporary with or earlier than the mortuary complex to the south.

The horseshoe-shaped ditch [401] and associated pits or ditch sections [363, 365] could have provided sufficient material to build a low mound over the backfilled burial pit [360] and the asymmetric profile of the gravel fills suggests that material quarried from the ditch was deposited within its interior. The pits or ditch sections [363, 365], extending the line of the encircling ditch, suggest an elaborate rite associated with the raising of the mound to cover the grave. Elsewhere, the practice of pit-digging has been interpreted as evidence of a segmented social hierarchy, where the construction of the encircling ditch and pits was undertaken by different individuals or groups (Startin and Bradley 1981).

The gravelly deposits in the top of burial pit [360] and pit [358] were probably derived from the base of the mound, pressed down into them by the weight of the gravel above. The pit was probably left open until the mound was raised. The main infilling of the burial pit itself, however, comprised introduced material and was not derived from the encircling ditch. The high proportion of flint debitage, in particular the chips, suggest knapping was carried out in the vicinity. Although it is tempting to postulate a connection between this evidence and the presence of the unfinished arrowhead, the battered condition of the latter argues against this. It seems likely therefore that the gravefill contained residual material, not directly associated with the burial.

Comparison of these deposits with other excavated sites suggests that this group represents the remains of an oval barrow, a rare type of monument, usually dating from the end of the middle Neolithic period (Darvill 1988). The Bunyan Centre barrow is very small for this class of monument, although variations within this type have been recognised. Unenclosed pit graves under a ditched mound seem to occur late in the development sequence (MPP Class F – Darvill

1988). A date of 2360 ± 110 Radio Carbon Years BC was recovered from an antler found in the bottom of the quarry ditch associated with a class F oval barrow at Alfriston, East Sussex (Drewett 1975). Artefacts from the Bunyan Centre barrow fall within this date range at the end of the middle Neolithic period. The presence of the leaf-shaped arrowhead, provides a *terminus ante quem* of the early Neolithic for the backfilling of the central grave. The late Neolithic chisel arrowhead from the uppermost fill of the quarry ditch [400] may be significant but need not indicate a *terminus post quem* for its disuse as residuality cannot be ruled out. In view of the absence of scientific dating evidence it may be prudent to assign this monument to the broader 'later Neolithic' period.

The evidence from the Bunyan Centre suggests that ritual activities continued in the area of the oval barrow. Small pits backfilled with burnt material are often found in association with Neolithic monuments, most commonly coinciding with the occurrence of grooved ware pottery (Thomas 1991, 63). Deposits of pottery and flints in shallow pits near Neolithic monuments have been interpreted as an attempt to maintain the ritual significance of monuments beyond the period of their construction (Phillips and Thomas 1987, 488). The function of the two small gullies [241, 149] remains unclear. Although each appears to lead to the area in front of the oval they could be oriented on the entranceway to the large enclosure and therefore belong to a later phase.

The hengiform ditch appears to have replaced, or possibly incorporated, the oval barrow. Clearly sufficient gravel could *not* have been excavated from the ditch to form a substantial mound covering the whole of its interior. In contrast to the features within the horseshoe-shaped ditch, none of the features within the larger ring contained significant quantities of gravel which suggests they were not buried beneath a gravel mound. It is possible, however, that the ditch was associated with an external bank based on the limited evidence from the eastern side of the circuit. A similar example from elsewhere in Bedfordshire, ring ditch 1 at Barton Hill Farm, was interpreted as a henge by the excavator (Dyer 1962). Using the criteria defined by the Monuments Protection Programme the Bunyan Centre enclosure can tentatively be interpreted as a Type A *Hengiform Monument*. This class of monument is usually dated to the later Neolithic and frequently found in association with other, broadly contemporary, ritual monuments (Darvill 1989).

The development of features within the monument remains uncertain. The positions of grave [315] and pit [229] suggests that they were associated. A similar arrangement was encountered within the U-shaped ditch and has been noted at sites elsewhere (Drewett 1975). Pits and graves are commonly encountered within the interior of hengiform monuments but the polygonal gully may be unique to the Bunyan Centre site. The gully appears to have been constructed as a series of short, straight sections forming a slightly flattened oval. Its angular form suggests that it supported some form of revetment for an internal mound. There was no trace of an increase in the proportion of gravel within its interior and its rounded profile suggests that it was left open to silt up gradually. However, the silty deposits infilling the top of the grave, the pit and the gully may indicate that these features were sealed beneath an earthen mound rather than a gravel mound. The presence of finger nail rusticated beaker ware in these deposits suggests that domestic material was being deposited in a ritual context, a process already noted elsewhere (Thomas 1991).

A Neolithic mortuary enclosure discovered within a later ditched enclosure at Aldwinckle in Northamptonshire (Jackson 1976) may provide a parallel for the polygonal gully. However, the structural elements encountered at Aldwinckle were not present at the Bunyan Centre. This gully may have been intended to emphasise a central space (Thomas 1991) and it is possible that the hengiform bank and ditch were a later addition, as has been noted elsewhere (Clare 1987, 459).

The beaker burial clearly post dates pit [229], and was probably a later insertion, though presumably the position of grave [315] would still have been visible when this occurred. The shallow nature of the grave, which contrasts with the depth of the other two burials, lends some support to the suggestion of an earthen mound.

The relative phasing of concentric ditches is difficult to establish (Evans 1988) and the relationship between the polygonal gully and the hengiform ditch remains uncertain. However, concentric spaces are common in the Neolithic period (Thomas 1991, 47-48), and the two may be contemporary; the polygonal gully replicated the circle of post settings encountered within the nearby henge at Bury Farm, Goldington (Mustoe 1988). At the Bunyan Centre the majority of the pits or post holes appear to respect the central space defined by the polygonal gully which suggests that it was an

integral part of the monument from its inception. The possibility that the central structure predates the hengiform bank and ditch has already been raised but the gully may have been dug later to emphasise the insertion of the beaker burial [207]. Judging by the nature of the infilling deposits this last option seems least likely.

The angular profile and the deposition pattern observed within the ditch imply that gravel eroded rapidly into the earliest ditch cut. The outer ditch was probably left open to silt up naturally during Phase Two. "Ring ditches tend to contain a layer of fine sediments above their primary silting . . . suggesting a long stable phase" (Robinson 1992, 53). The slightly rounded profile of the sides indicates erosion while the infills of clays and silts together with the manganese staining observed in the fill of ditch cut [503] imply wetter conditions on the site at this time.

The gravel layers in the base of the recut Phase Three ditch may indicate the final erosion of an external bank or internal mound whilst the final infilling of the ditch probably derived from later agricultural activity. The insertion of pit [126] to create a causewayed entranceway suggests a change in the activities associated with the monument in its final phase. The infilling of gully [402] and the latest ditch are sufficiently similar to suggest that they were contemporary. The presence of Iron Age pottery sherds within the upper fill of the ditch coupled with its rounded profile attests the gradual erosion of the monument. Pottery sherds of this date are commonly found within the fills of similar monuments in Bedfordshire. This would suggest not only that Hengiform monuments remained significant landscape features but also that they retained their ritual significance beyond the later Neolithic (Darvill 1989).

LATER PREHISTORY

The second period of activity at the Bunyan Centre occurred in the early Iron Age and probably relates to the adjacent sites excavated in the 1960s (Dring 1972). An unenclosed settlement, comprising a well or watering-hole, at least one post-built structure and several pits, was uncovered in the north of the site (Area B). A later ditched enclosure encroached on the silted-up well but otherwise there were few stratigraphic relationships. Two features containing Iron Age pottery were also uncovered to the south during the excavation of Area A.

The Well (Fig 10)

The well [27/262] was cut through the fill of tree throw [271]. It was roughly circular in plan, c.3.2m in diameter, with evenly sloped sides tapering to c.1.7m diameter at a depth of 0.8m. The western side of the well was broken back to an angle of c.30° to create an uneven shelf c.0.5m below the surface of the subsoil.

The surviving profile suggests that the well was recut at least once. Several episodes of infilling were identified which may represent periodic cleaning during continued use throughout the early Iron Age. The lowest fills were a layer of yellowish brown, silt (48) abutting the west face of the well at a depth of c.0.8m and a silty sand and gravel deposit (273) abutting its east face. The former probably relates to the initial silting of the well while the latter may relate to the later erosion of the east side of the well. A thin layer of bluish grey, clay (47), c.40mm thick, was partially exposed above the silty layer (48). Successive silty deposits ranging from grey brown with charcoal flecks (46) to yellowish brown (45, 261) had accumulated above the clay layer (47). The silty deposits were sealed by a layer

of blueish grey clay (44/259) flecked with charcoal which infilled the hollow in the top of the uppermost silt (261) and extended over the shelf in the west side of the well. This clay layer may have been deliberately laid down to seal the earlier fills. Successive deposits of silty clay flecked with charcoal (43/257/270) and silt (256) were overlain by a layer of gravelly clay silt (42/255). Each of these layers probably represents at least one instance of cleaning, with the gravelly silt deposit (42/255) possibly representing a final, deliberate act of backfilling. Subsequently, the well appears to have been left open long enough for the gravelly layer to settle and a clay silt deposit (28/254) to accumulate in the resulting hollow.

All of the pottery from the well, with the exception of a residual early prehistoric fragment from sealing layer 255, is of early Iron Age date. There is little difference in the assemblages from the lower layers (45, 46) and the final settling layer (28, 254). Carinated jars were found in layers (46) and (28, 254), and, although there is a variety of fabric types present, type F03 is present throughout. An almost complete early Iron Age fine sandy carinated

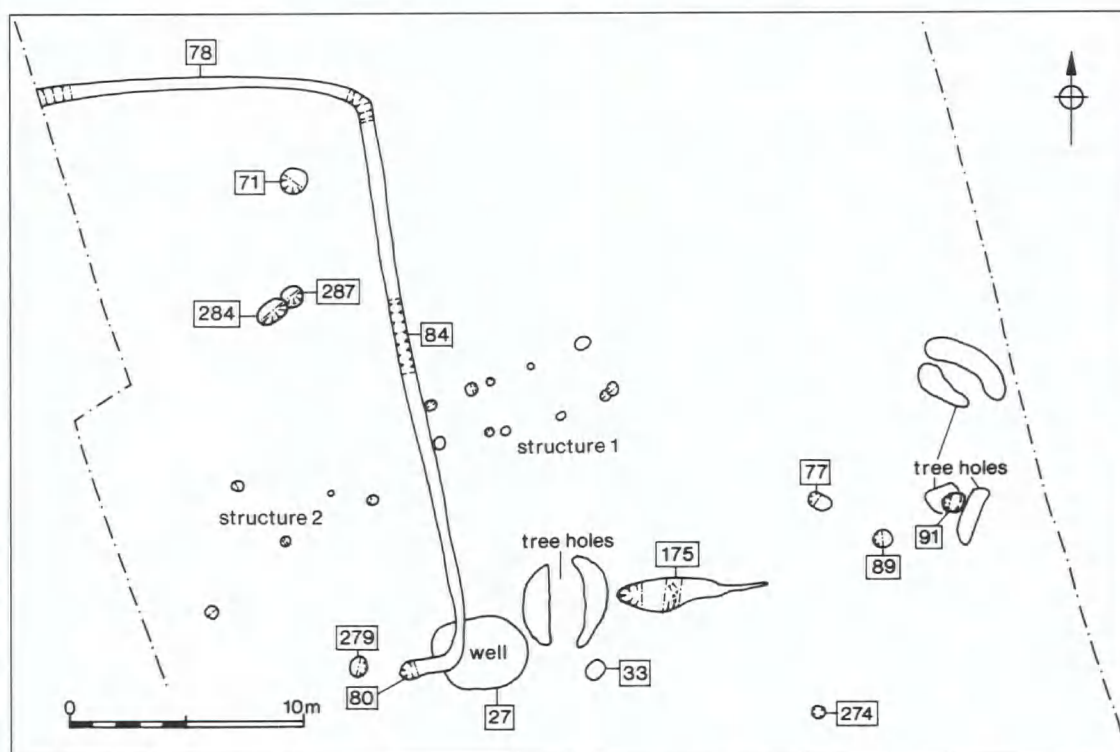


Figure 10 Area B: Excavated features

jar (Fig 12 Cat 8) was recovered from layer (46). The carinated jar may have been a votive offering. It is a small vessel, unsuitable for drawing water from the well, and, although it might have been used as a drinking vessel and hence dropped accidentally into the well, it was just as likely to have been deliberately deposited.

A retouched flake end-scraper in the uppermost fill (261), was clearly residual in this context.

Structure 1 (Fig 10)

A rectangular post-built structure was located to the north of well [27]. Ten post-holes, arranged two abreast, indicate a structure at least 7m long and 2.5m wide. The post holes ranged from c.0.35m to 0.6m in diameter and were mainly square-profiled with near vertical sides and flattish bases. Post-hole [102] at the south-eastern corner of the structure had been replaced indicating at least one phase of repairs. There were no indications of posts preserved in the sections which suggests that the structure was dismantled rather than the posts being left to rot *in-situ*. The derelict post-holes were infilled with sandy silt or charcoal-rich silty clay. Six sherds of early Iron Age pottery (Fig 12, Cat no 10) were found within the fills of three of the post holes (86, 106, 117). Depending on how the sherds arrived in the post holes, they might provide a *terminus post quem* for use or abandonment of the structure, but do not necessarily provide a date for construction.

The Enclosure (Fig 10)

Three sides of a rectangular ditched enclosure, over 0.035ha in extent, were uncovered in the west of the site. A truncated post hole adjacent to the south facing entrance may have been the remains of a gate. The sharp profile of the enclosure ditch suggests that it was relatively short-lived. A possible structure and a number of features located within the enclosure need not be associated with it.

The enclosure ditch was 0.7m wide with sloped sides tapered to a flattish base, c.0.2m wide and 0.3m deep, forming an angular U-shape profile which became more irregular at the north-west corner. The northern ditch [78] extended c.15m from the western limit of the excavation. The western ditch continued southwards over a length of 25m to a slightly rounded corner, cut into the upper fill of the well [27]. The southern ditch [84] terminated in a rounded butt-end [80] less than 3m away. Primary deposits of gravelly silt (99, 296) were encountered in the ditch terminal [80] and the

north-east corner [294]. The upper fill (81) of the ditch terminal was flecked with charcoal and contained late Iron Age pottery which may have derived from domestic contexts. Fragmentary late Iron Age pottery was recovered from the northern fill (79) of the enclosure ditch but otherwise the remainder of the ditch contained a relatively clean silty fill.

The truncated post-hole [279] immediately to the west of the ditch terminal [80] was 0.75m in diameter with sloped sides and a flattened base c.0.2m deep. A stony deposit of silty sand (281) enclosed a central 'post-ghost' 0.24m in diameter, defined by grey brown, silty sand (280).

Structure 2 (Fig 10)

A post-built structure comprising four, widely spaced, postholes [297, 300, 302, 304] was located in the south of the enclosed area. Only one of the postholes [297] retained the impression of a post (298) within its stony fill (299) and it was not possible to discern any form or function for this structure. A blade fragment from posthole [302] suggests possible Mesolithic activity, but was probably residual within this context.

Pits (Fig 10)

Several pits or postholes were located to the south and south-east of Structure 1, in the north of the enclosure, and further to the south in Area A.

The truncated base of a circular pit [274] discovered to the south of Structure 1 and an isolated pit [33] uncovered to the west of the well were clearly used for the disposal of domestic refuse. Pit [274] was 0.55m in diameter with concave sides and a flattish base c.60mm deep. A layer of silty sand (278) in the base of the cut was overlain by a mixed deposit of sandy clay and silt (275) flecked with charcoal.

Pit [33] was 1.15m in diameter with concave sides and base c.330mm deep. A layer of sandy silt (34) in the base of the pit contained reddened, possibly heat discoloured, stones and was overlain by a mixed deposit of sandy clay silt (36). A charcoal-rich clay silt deposit (32) was probably the final backfilling of pit [33]. A layer of clay silt (35) filled the consolidation hollow in the top of this pit.

Early Iron Age pottery sherds were recovered from pit [33]; five sherds from the lower fill (36), and a single vessel comprising twenty-one sherds (Fig 12, Cat no 11) from the upper charcoal rich fill (32).

Three oval pits [77, 89, 91] to the south-east of

Structure 1 did not contain domestic refuse and their function remains unclear.

Three larger pits [71, 284, 287] were discovered in the north of the enclosure. The fill (72) of pit [71] produced three late Iron Age 'Belgic' grog-tempered sherds. Pit [284] was cut through the fill of pit [287] but otherwise little information could be gleaned from these pits. The function of the pits remains unclear.

An irregular pit [405] discovered adjacent to the southern limit of excavation in Area A and small pit [333] located within the hengiform monument contained domestic refuse and pottery sherds of Iron Age date. The fill (309) of pit [405] produced a good assemblage of pottery, comprising substantially complete vessels (Fig 12, Cat nos 12-14), including a carinated jar and handled jar, of similar form to jars found at Gretton, Northants, and dated to the early Iron Age (Jackson and Knight 1985).

DISCUSSION

Although it is impossible to say whether the tree-throw holes are contemporary with the mortuary complex to the south at least one [271] predates the digging of the early Iron Age well [262]. The pottery suggests that the well was in use throughout the early Iron Age. The Early to Middle Iron Age pottery sherds in the lower fills imply an early date for its original use and the presence of a near complete vessel indicate that these were not merely residual artefacts within a later context. The steep sides of the well may have been broken back to create a wider mouth to allow access for animals.

Rectilinear post hole structures, and in particular 'longhouses' defined by eight or more paired post-holes, are relatively rare on sites of this period in the Ouse valley (Knight 1984). The post hole structure may be contemporary with the well but its relative position means it is unlikely to be contemporary with the later enclosure. The function of this structure was not readily apparent. It is possible that more than one structure, perhaps even a series of four-post structures, is represented.

The occurrence of Early Iron Age domestic refuse within pits in the south of the site indicates an area of dispersed settlement at this time.

The function of the enclosure remains unclear. None of the structures within its interior need be contemporary and it may be no more than a small paddock associated with settlement evidence discovered during the construction of the adjacent John Bunyan School (Dring 1971, 1972). The limited quantities of 'Belgic' pottery suggest that

this area was peripheral to the settlement and pottery industry to the west.

THE ARTEFACTS

CERAMICS

John La Niece and Anna Slowikowski

A total of 450 sherds, representing the remains of 80 vessels and weighing 3.368kg, was recovered. The pottery was examined by context and quantified by minimum vessel, sherd count, and weight (Tables 5-6). Thirteen pottery types were recognised from stratified contexts, falling into chronological phases from the Neolithic to post-medieval periods.

Type Descriptions

Fabrics are listed below in approximate chronological order and are identified by the standard codes in the Bedfordshire Ceramic Type Series.

Early prehistoric pottery

X01 Non-specific early prehistoric

A generic code encompassing all pottery of early prehistoric date which is insufficiently diagnostic to be attributed to a recognised tradition (see below). All vessels are hand-made and undecorated. None is illustrated.

Forms – undiagnostic body sherds.

Date range – Neolithic to Early Bronze Age.

Illustrations: none.

X06 Grooved ware

Broadly contemporary with Late Neolithic Impressed Wares, the characteristic attributes of Grooved ware are flat bases, bowls or barrel-like forms and incised, cordoned or applied plastic decoration.

Forms and decoration Forms and decoration – 108 body sherds, some burnished, the majority of which bear incised and/or stabbed decoration.

Date range – 2200bc-1500bc (Gibson 1986, 27).

Illustrations: 1 – 3

X07 Beaker

Inspired by continental forms and marking a clear break with the Later Neolithic Impressed and Grooved ware traditions, Beaker pottery is distinguished by the complexity of decoration and the characteristic fineness of the fabric.

Forms and decoration – 38 sherds, representing an almost complete 'late style' beaker. The body of the pot is bulbous and the belly low, the rims everted and simple and the neck accentuated and elongated. Decoration is zonal, at the belly and the neck, which bear a variety of comb impressed geometric motifs. Also four body sherds of domestic 'late style' beaker ware, with ordered fingernail impressions, and a single body sherd with incised decoration.

Date range: 1700bc to 1500bc, (Gibson 1986, 34).

Illustrations: 4 – 7.

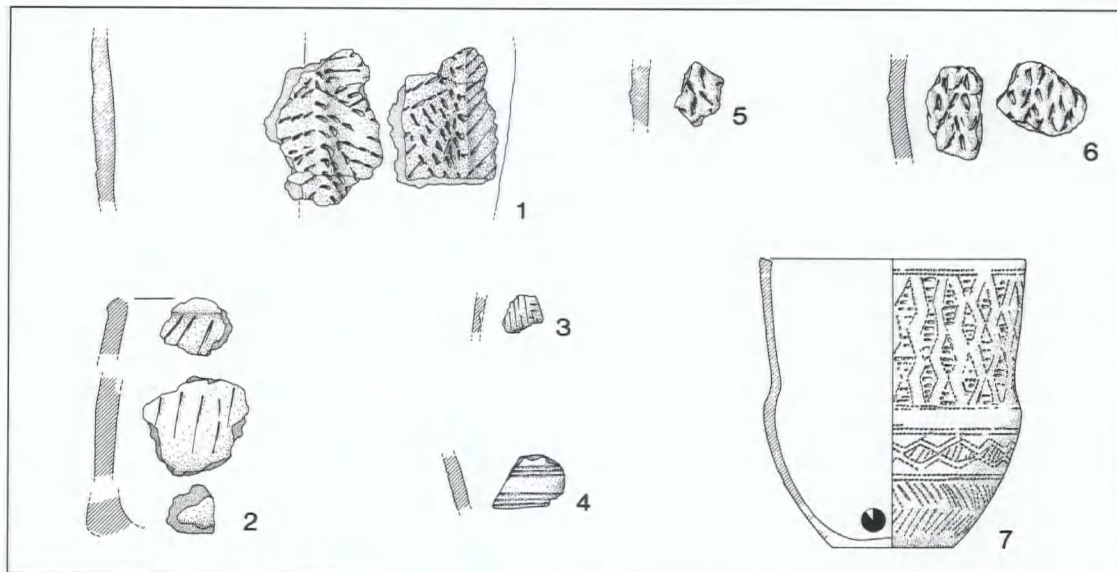


Figure 11 Illustrated Pottery (1:4). See Table 7

Fabrics

The fabric types in which vessels of early prehistoric origin occur are localised and highly variable. Consequently, each unique fabric has received a site specific description. The incidence of these fabrics by generic ware type is shown in Table 5. The generic type code is included in the Bedfordshire Ceramic Type Series.

Site Fabric 1: Sand and grog

Fairly hard, soapy fabric, with variable surfaces, ranging from red-dark brown to orange-red, and mid grey cores. Inclusions are frequent, moderately sorted, subrounded quartz, 0.28mm to 0.46mm, and sparse fine grog, 0.15mm to 0.21mm.

Site Fabric 2: Sand and calcareous

Fairly soft, smooth sandy fabric, with light orange-red external and black internal surfaces and core. Contains frequent, moderately sorted, subangular quartz, 0.2mm to 0.42mm, frequent calcareous inclusions, 0.1mm to 0.4mm and sparse rounded grog, 0.15mm to 0.4mm.

Site Fabric 3: Sand

Variable soft to hard, soapy to rough fabric, with surface colours ranging from brownish-red to black, and dark grey or black cores. Contains frequent, well sorted to poorly sorted subangular and rounded quartz, 0.2mm to 1.2mm; sparse subrounded grog, 0.12mm to 0.2mm, and sparse subangular angular calcareous inclusions, 0.2mm to 1.2mm.

Site Fabric 4: Grog

Fairly soft, smooth through to rough fabric, mid grey to black throughout. Contains moderately sorted, angular and rounded medium grog, 0.1mm to 0.4mm, and moderate subangular quartz, 0.27mm to 0.94mm.

Site Fabric 5: Sand and sparse grog

Fairly soft and smooth, with variable light to dark orange-red surfaces and orange-red to dark grey core. Contains moderate, poorly-sorted sub-rounded to sub-angular quartz, 0.1 to 0.4mm, some ranging up to 0.8mm. Also sparse, fine to coarse, sub-rounded and sub-angular buff-orange grog particles 0.1 to 0.4mm. Rare angular red ?iron ore also occurs and occasionally, surfaces are slightly micaceous, although not in sufficient quantity to suggest a separate fabric type.

Site Fabric	1	2	3	4	5	Total
X01	3:7	4:10				7:17
X06			2:11	2:71		4:82
X07					5:43	5:43
Total	3:7	4:10	2:11	2:71	5:43	16:142

Table 5 Correlation between site specific fabrics and generic ware types (quantification by vessel and sherd number)

Contents	Fabric Types													
	X06	X07	X01	F01A	F01C	F03	F27	F28	F29	F30	F31	F06C	F09	
73 74 269 270			1:1 1:4	2:3								1:1		
317 346	3:73		1:2											
228 240 244 308 128 205 206 111 209 160	1:1 1:1 1:1 1:38 1:2		1:2									1:3		
46 45 255 254 28			2:5	1:2		1:2 1:8		1:7				3:3		
						2:3 1:3	2:9	1:1	1:1	1:3				
86 106 117				1:2				1:1						
					1:1			1:2						
79 81				1:1								1:3 2:4		
36 35 32 309 332 72				1:3 1:1					2:2 1:1 1:21			1:4		
				1:3									2:3	

Table 6 Pottery by vessels:sherds

*Later prehistoric pottery*Early Iron Age

F01A Coarse flint tempered

Fabric – Soft to medium fired, fairly harsh fabric, ranging in colour from buff through orange to grey-brown or dark grey. Cores may be various shades of grey. Inclusions are frequent, ill-sorted sub-angular flint, 0.4mm to 3.5mm, visible on the surfaces and in the jagged break, and frequent, medium, sub-rounded to sub-angular quartz, 0.2mm to 0.4mm, occasionally ranging up to 1.0mm. Grog may be found rarely, giving the surfaces a soapy texture.

Forms and decoration – three undiagnostic body sherds.

Dating and parallels – Early to middle Iron Age. Flint is known as an inclusion in both Neolithic and Iron Age fabrics within the region (see e.g Knight 1993, 230). Comparable examples

occur at Shillington and Salford (BCAS in prep).

Illustrations: none.

F01C Quartz and flint

Fabric – patchy orange-buff-brown. Hard, very coarse and rough with an uneven fracture. Inclusions are frequent, poorly sorted, milky, subangular quartz, 0.3-2.5mm; moderate amounts of poorly sorted, white, angular flint, 0.5-2.5mm; mica is clearly visible on the surfaces of the single example from this site.

Forms and decoration – one undiagnostic body sherd.

Dating and parallels – a comparable fabric, but without any mica, was found at Stratton, near Biggleswade, where the forms indicated a late Bronze Age or early Iron Age date (BCAS in prep).

Illustrations: none.

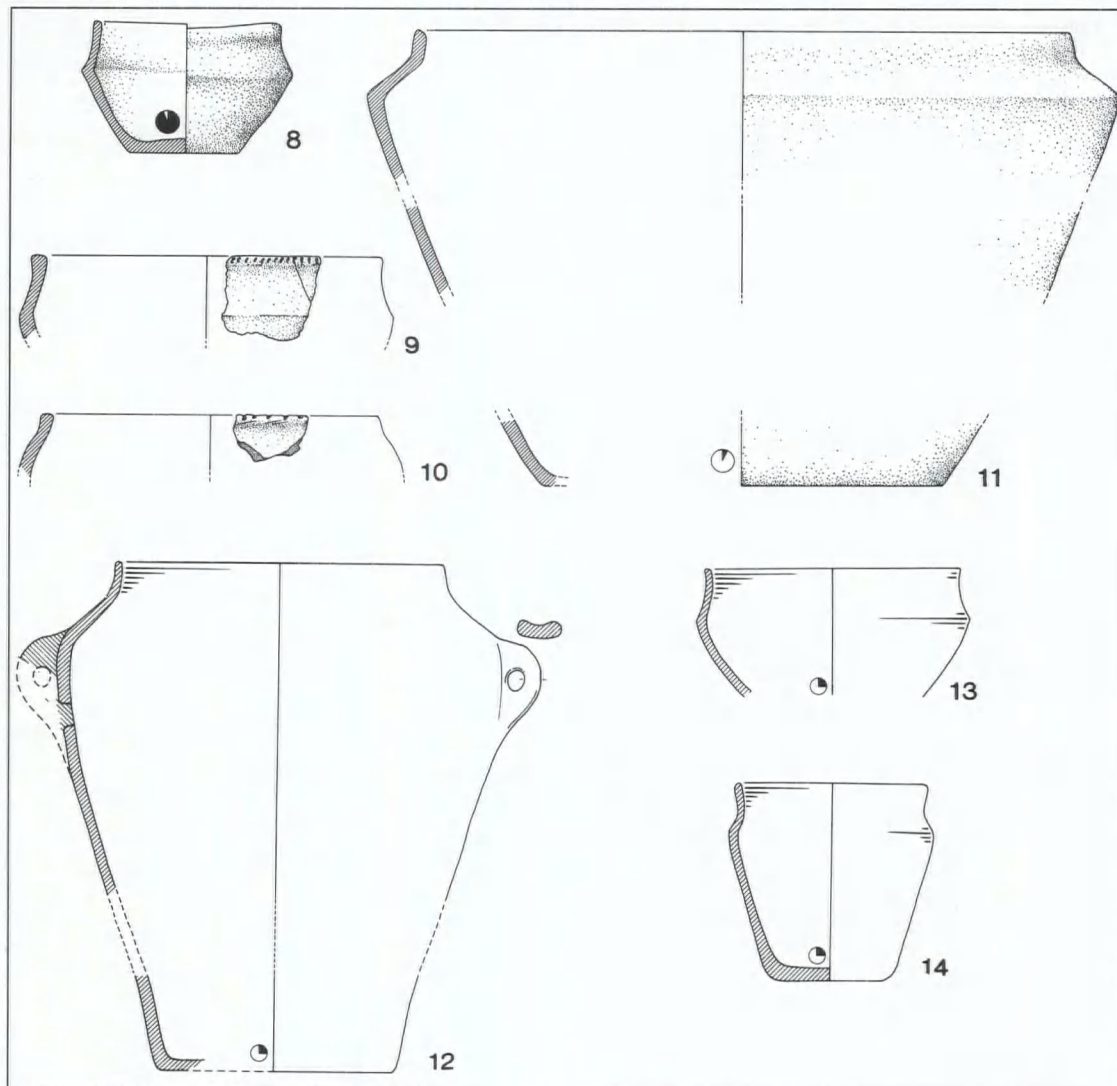


Figure 12 Illustrated Pottery (1:4). See Table 8

F03 Sand and grog tempered

Fabric – fully described by McSloy (1996, 21).

Forms and decoration – thirteen undiagnostic body sherds and a single rim fragment.

Dating and parallels: Early-middle Iron Age. Comparable examples occur at Gold Lane, Biddenham (BCAS in prep) and Willington (McSloy 1996).

Illustrations: 9 – 10.

F27 Shell and grog tempered

Fabric – fully described by McSloy (1996, 24).

Forms and decoration – eleven undiagnostic body sherds.

Dating and parallels – Early Iron Age. The use of these inclusions was first recognised at the Iron Age settlement at

Salford (BCAS in prep), and also occurred at Willington (McSloy 1996).

Illustrations: none.

F28 Fine sand tempered

Fabric – reduced dark grey or red-brown surfaces and dark grey or black core. Fabric is hard, fairly smooth to feel with an even fracture. Contains abundant, well sorted fine clear quartz 0.2-0.5mm; sparse milky-white quartz or feldspar 1.5-2mm; sparse sub-angular ironstone fragments 0.3-0.5mm. Small calcareous inclusions occur rarely in some examples from this site.

Forms and decoration – rim sherd from a possible jar form, and an almost complete carinated jar.

Dating and parallels – Early Iron Age. Occurrences are known

Illustration number	Fabric code	Fabric type	Site fabric	Context	Context description
1	X06	Grooved ware	4	346	Oval barrow phase
2	X06	Grooved ware	4	346	Oval barrow phase
3	X06	Grooved ware	3	346	Oval barrow phase
4	X07	Fine ware Beaker	5	240	Hengiform monument phase 1
5	X07	Rusticated Beaker	5	308	Hengiform monument phase 1; grave [315]
6	X07	Rusticated Beaker	5	206	Hengiform monument phase 2; grave [207]
7	X07	Fine ware Beaker	5	205	Hengiform monument phase 2; grave [207]

Table 7 Description of illustrated pottery in Figure 11

Illustration number	Fabric code	Fabric type	Context	Context description
8	F28	Fine sand	46	Well [27/262]
9	F03	Sand and grog	254	Well [27/262]
10	F03	Sand and grog	86	Structure 1
11	F29	Coarse sand	32	Pit [33]
12	F30	Sand and calcareous	309	Pit [405]
13	F29	Coarse sand	309	Pit [405]
14	F29	Coarse sand	309	Pit [405]

Table 8 Description of illustrated pottery in Figure 12

at Salford (BCAS in prep), Willington (McSloy 1996) and Flitwick (McSloy 1999: this volume).
Illustrations: 9.

F29 Coarse sand tempered

Fabric – uniform dark grey external surfaces, although occasionally patchy red-brown or orange; core and interior dark grey. Fabric is hard, sandy or harsh to feel with irregular or ‘hackly’ fracture. Contains abundant well sorted fine clear quartz 0.5–1.5mm; common well sorted, coarse, sub-rounded milky white quartz or feldspar 1.5–2mm; sparse sub-angular ironstone fragments 0.3–0.5mm.

Forms and decoration – carinated jar (c.f. Elsdon, 1993, 31-Fig 5a; 32-number 6).

Dating and parallels: Early Iron Age. First recognised at the Iron Age settlement at Salford and Shillington (BCAS in prep).

Illustrations: 11, 13 – 14.

F30 Sand and calcareous tempered

Fabric – Fairly hard with a rough texture, although the fabric can vary from fine to coarse. Vessels have reduced mid-grey to black cores with buff-brown-orange patchy surfaces. Abundant

medium to coarse calcareous inclusions are present, 0.32–1.04mm, with occasional larger calcareous lumps, up to 4mm. Frequent voids occur where leaching has occurred. Frequent, medium to coarse, rounded-subrounded quartz, 0.32–0.96mm. Sparse iron ore, 0.1mm to 0.3mm, is also evident.

Forms and decoration – handled jar with flat base.

Dating and parallels – early to middle Iron Age. Comparable examples occur at Willington (McSloy 1996) and Shillington (BCAS in prep).

Illustrations: 12.

F31 Quartz and mica tempered

Fabric – fairly hard, smooth fabric, with variable dark brown, black and mid-dark blue surfaces and core. The surface is slightly micaceous. Contains abundant, moderately sorted angular quartz, 0.1mm up to 4.3mm, and moderate calcareous inclusions, 0.2mm to 0.6mm. Fine rounded iron ore inclusions, 0.1mm to 0.23mm, are also evident.

Forms and decoration – three body sherds which formed part of a jar (illust no 13).

Dating and parallels – early to middle Iron Age.

Illustrations: none.

Belgic Iron Age

F06C Coarse grog tempered

Fabric – the fabric is described by Stead and Rigby (1986) and the forms by Thompson (1982).

Forms and decoration – jar with vertical incised decoration.

Dating and parallels – Late Iron Age in the 'Belgic' tradition.

Occurs widely across the county, at sites such as Shillington, Kempston and Ruxox (BCAS in prep).

Illustrations: none.

F09 Sand and grog tempered

Fabric – A variable soft to fairly hard, slightly harsh fabric, reduced to a grey-black or grey-brown colour, with an occasional paler core. External surfaces are sometimes either smoothed and/or burnished. Contains frequent, medium, well to poorly sorted, sub-angular and sub-rounded quartz, 0.2mm to 1.2mm, some ranging up to 2.8mm. Also abundant, medium black or light buff sub-rounded grog, 0.1mm to 0.8mm.

Forms and decoration – jars with incised or stabbed decoration on the rim, possibly copying Roman types.

Dating and parallels – late Iron Age, in the 'Belgic' tradition.

Comparable examples occur at Flitwick (McSloy 1999: this volume), Shillington, Kempston, and Ruxox (BCAS in prep).

Illustrations: none.

FLINT

John La Niece

A total of 305 worked flints was recovered from the excavation (Tables 9 and 10). The flint material was generally 'fresh' in appearance, although some edge damage and slight battering was evident, in particular amongst the residual assemblage. Patination was mixed, with surface colour in the main dark or mid-grey with occasional light/dark brown and one scraper of cream/grey surface colour. The latter was possibly caused by calcareous burial conditions. The majority of the raw material appeared to derive from gravel deposits, indicated by the small size of complete cores (weighing between 7 and 56g) and the presence of cortex, consistently thin and light brown in colour, on 57% of the assemblage.

Ninety-one pieces, c.30% of the assemblage, displayed characteristics of manufacture using a hard hammer. The evidence for this being a thick striking platform, with a large or pronounced bulb of percussion, occasionally showing a conchoidal fracture. Only one blade fragment showed signs of production using a soft hammer of wood or antler, typified by a minimal striking platform and a low, diffuse bulb of percussion.

Debitage

Flakes and chip fragments, many of which were recovered from grave fill soil samples, comprised 83.3% of the entire assemblage. A large proportion displayed prominent bulbs of percussion and hinge fractures. One blade core and twenty-

eight flake cores were identified, the majority from unstratified contexts. The blade core displayed an opposed striking platform, while the flake cores in the main had multiple platforms. Three blade fragments and one utilised blade were also recovered.

Tools (Fig 13)

Arrowheads were relatively well-represented with two leaf-shaped arrowheads (Cat nos 1, 2), two chisel arrowheads (Cat no 3), and one possible barbed and tanged arrowhead. The unfinished leaf-shaped arrowhead (Cat no 2) and the crudely fashioned, and unfinished, barbed and tanged arrowhead (206) were recovered from grave fills.

Five end-scrapers, comprising 16.6% of the total tool assemblage, were identified (Cat nos 4, 5). Four were created from flakes and a single example was part of a keel (alternate flaking). The majority of the scrapers were clearly residual within the contexts in which they were found.

Two knives were retrieved from unstratified or insecure contexts, such as the surface of unexcavated feature fills (Cat no 6). Six retouched flakes were identified, two of which were possibly used as scrapers, while a third may have been used for cutting (Cat no 4).

Illustrated Flint Catalogue (Fig 13)

- *1 (68) Ploughsoil *Leaf-shaped arrowhead*. Early Neolithic. Broken at both ends. Well made bifacially worked with invasive retouch. Dark to mid-grey flint. L 46.7mm.
- *2 (366) Oval Barrow phase, grave [360]. *Unfinished leaf-shaped arrowhead*. Early Neolithic. Bifacially worked with invasive retouch. Mid grey to light brown flint. L 42.8mm.
- *3 (401) Oval Barrow phase, barrow ditch [400]. *Chisel arrowhead*. Late Neolithic. Well made and retouched on dorsal surface. Mid grey flint. L 31.3mm.
- *4 (73) Tree throw hole [75]. *Extended end scraper*. Convex scraping edge with retouch on proximal end, with a possible reverse scraping edge towards the top. Light brown cortex on the flaking face, of dark grey, slightly burnt flint. L 40.3mm.
- *5 (261) Well [262]. *End scraper*. Convex scraping edge at distal end, with a light brown cortex on flaking face. Mid-grey flint. L 41.2mm.
- *6 (375) Plough furrow. *Knife*. Well made with semi abrupt retouch at distal end. Dark grey flint. L 46.3mm, W 32.2mm.
- *7 (346) Oval Barrow phase, prehistoric spread [346]. *Miscellaneous retouched flake*. Implement with one retouched edge. Light to dark brown flint. L. 70.2mm.

Chronological Overview

Of the 210 flints, 68.9% of the total assemblage, recovered from stratified deposits, 21 were residual within contexts containing Iron Age to post-medieval ceramics. The unstratified flints, 31.1% of the total assemblage, were recovered from topsoil and alluvial subsoil. The majority of material, 64.6% of the overall assemblage, is undiagnostic flakes and chips. Only minimal evidence for Mesolithic activity was recovered comprising four blades and one core, but no diagnostic tool types. Neolithic activity, both early-to-middle and late, is indicated by the presence of leaf-shaped and chisel

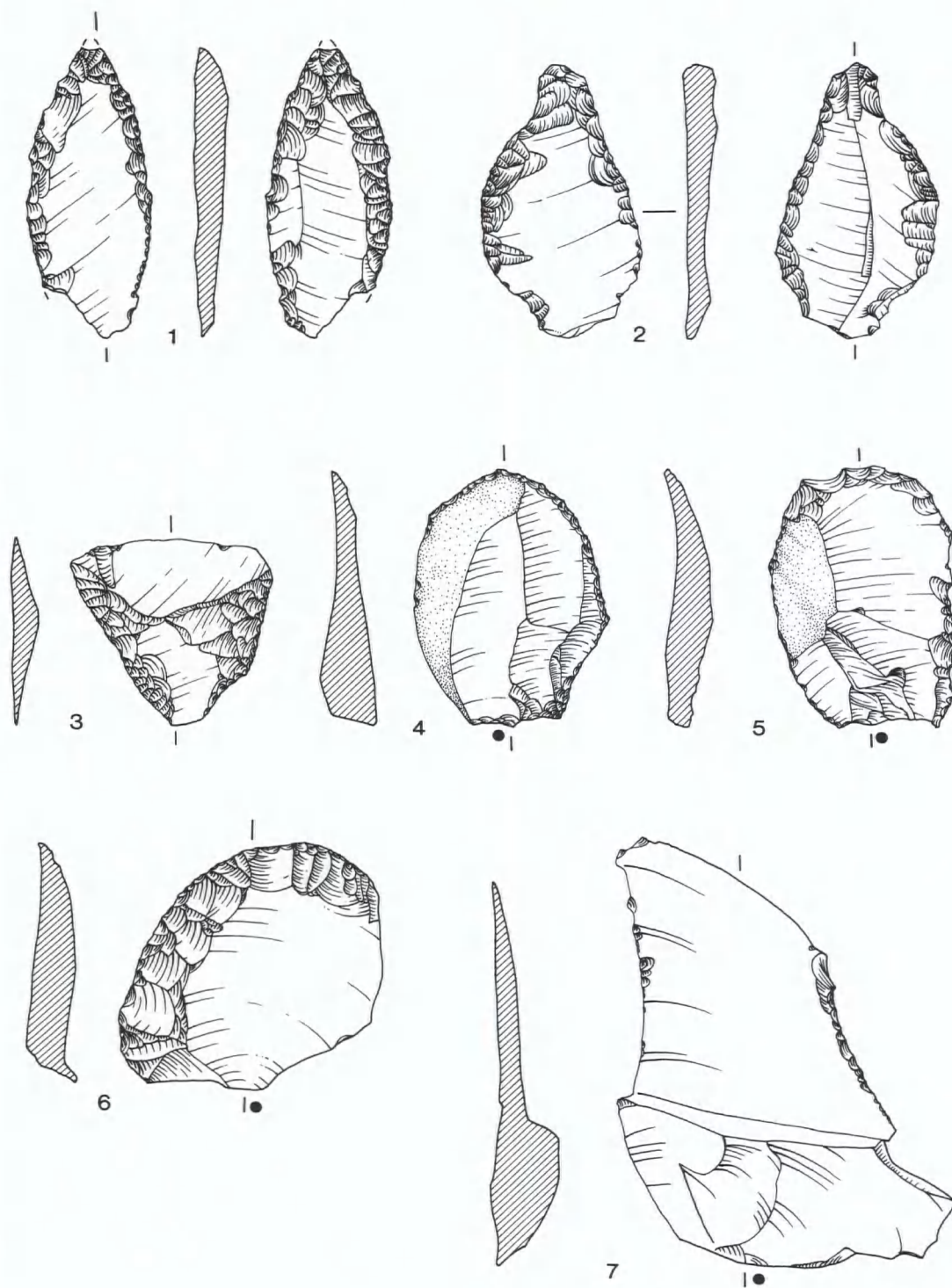


Figure 13 Illustrated Flint (1:1)

	Cores		Flakes			Blades/bladelets			Tools	Total
	Flake	Blade	Comp.	Chip	Utilised	Comp.	Frag.	Utilised		
Stratified	3	0	55	138	0	0	3	1	10	210
Unstratified	25	1	59	2	0	0	0	0	8	95
Total	29		254			4			18	305

Table 9 Summary of flint by type

	Scraper	Arrowheads			Knives	Retouched Flakes	Total
		Leaf	Chisel	Barbed and tanged			
Stratified	3	1	1	1	1	3	10
Unstratified	2	1	1	0	1	3	8
Total	5	5			2	6	18

Table 10 Tool summary

arrowheads and flake cores with multiple platforms. The single possible barbed and tanged arrowhead may indicate Bronze Age activity, but the crude fashioning of this piece, and its incomplete survival, makes identification uncertain. The undiagnostic nature of the remaining assemblage precludes close dating.

HUMAN REMAINS

Sharon Naughton and Charlotte Roberts

The remains of three individuals were recovered from graves in the south of the site (Area A). The fills of these graves derived from the riverine sands and gravels from the River Ouse. Soil of this type varies widely in its pH values (Brothwell 1981:8), but only a weak acidic solution is needed to dissolve the mineral phase of bone. The sandy nature of the soil together with modern disturbances, meant that the skeletons were fragmentary and incomplete.

The skeletal material was recorded on standard inventory forms used by the Calvin Wells Laboratory, University of Bradford. The methods used for age and biological sex assessment of the skeletal material were based on standard osteological methods. The poor preservation of the material meant that the analysis was limited. A report on the skeletal analysis (Naughton and Roberts 1995) is included in archive.

METHODOLOGY

The techniques used for the adult age assessment of SK368 included auricular surface (Lovejoy *et al* 1985), pubic

symphyses (Ubelaker 1989, 75), cranial suture closure (Meindl and Lovejoy 1985) and dental attrition (Brothwell 1981). The latter two are more unreliable than the former. Ubelaker (1989, 43) criticised cranial suture closure because the correlation of their closure with age was so variable among human populations. The dental attrition patterns produced by Brothwell (1981) are appropriate for this material as they were developed on British populations dating from the Neolithic to the Mediaeval period. Their accuracy, however, is markedly affected by diet, occupation, habit and pathology. Skeleton 314 was a sub-adult and it was therefore appropriate that growth studies (i.e., of long bone growth) were used that dealt with prehistoric sub-adult material (Sundick 1978, Merchant and Ubelaker 1977, Hoppa 1992). These were used in conjunction with modern data on epiphyseal fusion times (Williams and Warwick, 1980, Ferembach and Stloukal 1980) and dental development (Hillson 1986) to produce an overall assessment of the age of this individual.

The sex of the material was assessed by observation of cranial and pelvic morphology; this can be influenced by age and race, and also relies on the completeness of the skeleton. However, it was possible to assign a biological sex to SK 368.

Non-metric traits or epigenetic variations were also recorded. They are minor genetic variations in the development of the growth centre of the bone or position of the soft tissues; there are two hundred traits in the skull alone and almost as many in the postcranium. They may, however, be under mechanical control, and these confusing factors need resolving. They are recorded now for use in the future as researchers work on their aetiology (Saunders 1989).

Stature was estimated using tables developed from relatively modern North American populations (Trotter 1970). The estimate must, therefore, only be taken as a rough guide.

Dentition was recorded using the following scheme;

- * present
- / lost post-mortem
- u unerupted
- np not present

SK 368 The oval barrow burial (Fig 4)

Excavation was undertaken rapidly due to water seepage. The bone was well excavated and some reconstruction was possible leading to most of the skull, the upper arms and the majority of the thigh and lower limbs being identified; although only the shafts of the long bones had survived intact. The forearm, vertebrae and pelvis were very fragmentary, and the scapulae, ribs, sacrum, hands and feet were almost entirely absent. The bone showed evidence of root erosion but no cut marks or

*	*	*	*	*	*	*	*
8	7	6	5	4	3	2	1
8	7	6	5	4	3	2	1
*	*	*	*	*	*	*	*

Dentition

SK 314 The unaccompanied burial (Fig 5)

Preservation was quite good due to the depth of the burial. The soil from this site is quite sandy and this can lead to the bone becoming fragile. However, though fragmentary, most of the skeleton was recovered and some reconstruction could be undertaken. This revealed some interesting features in the skull, and also enabled approximate measurements to be taken from two long bones. This individual was still growing and therefore the bone was still incompletely mineralised, predisposing the bone to taphonomic factors. The surface showed signs of erosion and root invasion, but there were no evident cut marks or gnawing. The anterior maxillary dentition had large vertical cracks

np	*	*	*	*	*	*	*
8	7	6	5	4	3	2	1
8	7	6	5	4	3	2	1
u	*	*	*	*	*	*	*

Dentition

SK215 The Beaker burial

This inhumation was discovered at a depth of just 0.1m, and therefore much of the body had been ploughed away. The soil conditions contributed to the fragmentary nature of the bone. The skull appeared as no more than a stain on the ground while the lower limb bones were the only ones

*	*	*	*	*	*	*	*
8	7	6	5	4	3	2	1
8	7	6	5	4	3	2	1
*	*	*	*	*	*	*	*

Dentition

gnawing, suggesting burial of the skeleton soon after death.

Assessment of the indicators present suggested that this individual was a middle adult male, 171.17cm tall. No pathological conditions were evident. The dentition indicated good oral hygiene with no caries. There was no evidence of enamel defects or of any degenerative joint disease. The vertebral fragments showed no indication of any degeneration of the apophyseal joints or the vertebral bodies.

*	/	*	*	*	*	*	*
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
*	*	*	*	*	*	*	*

running vertically through the crowns. This is indicative of severe climatic weathering, with the soil temperature fluctuating between extremes.

Assessment of the indicators present suggested that this individual was a sub-adult of indeterminate sex and stature, aged c.14years and six months (+/- 18 months) at death.

Pathological conditions were apparent in the dentition. Enamel hypoplasias on the mandibular canines indicate that this individual suffered some form of childhood trauma, such as malnutrition or illness, which temporarily arrested growth of the enamel. A supernumerary tooth was visible in the maxilla and the third maxillary molars were absent indicating congenital abnormality.

*	*	*	*	*	*	*	*	np
1	2	3	4	5	6	7	8	8
1	2	3	4	5	6	7	8	8
	*	*	*	*	*	*	*	u

apparent and these disintegrated on lifting.

The majority of the dentition was recovered. This consisted of the crowns only, the roots and dentine had been destroyed, like the bone, by the sandy conditions. The teeth showed that this individual was an adult.

*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
			*	*	*		

CHARRED PLANT MACRO FOSSILS

Robert G Scaife

Rigorous sampling of all principal features/contexts was carried out to recover data pertaining to local land use, crop husbandry and general environmental conditions.

Samples of 8-10 litres were taken from all of the principal excavated contexts. Each sample was disaggregated by hand and left to soak for 5 minutes in H₂O₂. The flot was then recovered in a 500µm mesh, and dried. The residue was washed through a 1.00mm mesh, dried and sorted using a directed Xenon lightsource and x1.75 magnification.

Sorting and identification of the plant macrofossils was carried out using a Wild M3c (RGS). Whilst most samples contained some charcoal fragments, only 24 contained charred seeds. In general, the recovered remains were few from each sample with no substantial quantities in any sample. Seeds comprised predominantly cultigens with few weed seeds other than intrusive *Veronica hederifolia*, *Sambucus* and *Chenopodium* sp. Taxonomy follows that of Stace (1991) and Jacomet (1987).

No substantial numbers of charred grain, chaff remains or weed seeds were recovered which might provide information on local cereal cropping and processing. This paucity of remains suggests that the sporadic occurrences recovered are, in general, waste material.

ENVIRONMENTAL BACKGROUND

As would be expected, the Neolithic and Bronze Age landscape comprised a mixture of cultivated arable, with open grassland and woodland or scrub in the vicinity.

The occurrence of peas, *Pisum*, in the Neolithic grave [360] is the first record of this pulse in England. Although it has long been considered that pulses would have been introduced into Britain along with cereals in the Neolithic period (Hillman 1981, 189).

Cereal remains for the Neolithic comprise a few grains of Emmer and spelt, *Triticum dicoccum/spelta* type. Whilst no chaff was recovered, a single grain was diagnostic emmer based on the criteria of Jacomet (1987). For the Bronze Age contexts, emmer is accompanied by sporadic occurrences of free threshing bread wheat and a single emmer spelt. Bread wheat and emmer are typical of the Neolithic and Bronze Age, and whilst the numbers

are few, their presence alone indicates cultivation and use.

The presence of woodland or scrub is indicated by the substantial number of hazel nut fragments. Land clearance is suggested by the tree throw holes in the north of the site although this activity could not be dated and may have occurred naturally. Root tubers of *Arrhenatherum elatius* var *bulbosus* (Willd) St Amans are often indicative of grassland although they have been suggested as a food resource (Godwin 1975) or a weed cultivating abandoned arable land (Carruthers 1990). They may also represent turves burnt on a funeral pyre (Robinson 1988) although here they are more likely to derive from domestic fires together with the hazel fragments.

Few seeds or grains were obtained from the later- Iron Age/Romano-British contexts. However, a single 'pip' *Vitis vinifera* was recovered from the upper fill (201) of the hengiform ditch. It is not possible to deduce whether it was a product of local viticulture or derived from imported grapes/raisins. Grape pips have been found at Roman Sandy (Robinson 1996, 67) and a Romano-British vineyard has been discovered at Wollaston, Northamptonshire (Meadows 1997). The fact that it was charred suggests that it was part of domestic waste.

SYNTHESIS AND DISCUSSION

The Bunyan Centre is clearly the site of a hitherto unsuspected mortuary complex that can no longer simply be described as a ring ditch. The difficulties of establishing a chronological sequence for a site with so few stratigraphic relationships and so little dating evidence has been acknowledged above. However, a simplified model for the most likely development of the monument is presented here.

Initially, an oval barrow was constructed over the grave [360] of an adult male. The limited finds assemblage and typological parallels suggest a later Neolithic date for its construction. Narrow gullies may have been dug to emphasise the approach to the barrow while domestic debris deposited within pits in the vicinity signifies continued ritual activity at the site following the raising of the barrow.

Subsequently the oval barrow was replaced, or incorporated into a Type B hengiform monument with an entrance to the west. Parallel lines of small pits or post holes defined the approach to the entranceway and the grave [315] of a sub-adult of indeterminate sex and a small pit, presumably of ritual origin, were enclosed within a polygonal

gully located within the monument. Although it is possible that the polygonal gully could represent a mortuary enclosure predating the hengiform monument, the domestic Beaker pottery recovered from the remnants of the earthen mound which sealed the grave and pit suggest that this is unlikely. Earlier funerary monuments were frequently re-used during the Beaker period in Wessex (Thorpe and Richards 1984, 79).

An adult skeleton, accompanied by a 'Late-style Beaker' was inserted into the mound within the polygonal gully while the position of the earlier grave was still either known or visible. A period of consolidation indicated by the gradual silting of the hengiform ditch was followed by the final construction phase. The penannular ditch was re-excavated and the entrance modified by the addition of an oval pit to create two narrow causeways and the approach to the entrance way was enhanced by the addition of a narrow gully.

Iron Age pottery sherds in the upper fills of the hengiform ditch and the stray Iron Age pits may derive from later occupation or agricultural activity and need not signify continuity of use.

Recent survey has identified a number of Neolithic and Bronze Age ceremonial complexes along the middle and lower Ouse Valley which may represent territories occupied by communal groups (Malim forthcoming). The Bunyan Centre is located roughly midway between two of these; Biddenham Loop and Cardington/Willington. It is possible that the Bunyan Centre site was the focus of ritual activity intended to establish the territorial rights of settlers between the two major groups. The fact that these activities appeared to continue from the later middle Neolithic through to the early Bronze Age and possibly beyond mirrors the activity span of the major ceremonial centres.

The River Great Ouse provided an important route to the continent (Evans and Knight forthcoming, Malim forthcoming) and evidence of persistent links, possibly even colonisation, has been uncovered elsewhere. The early appearance of peas at the Bunyan Centre may be significant in this context. Grooved ware pottery was introduced into southern England in the later Neolithic and is often associated with communal activities at henge monuments (Thomas 1991). The concept of 'Beaker folk' settling in Britain has recently been revived on the basis of craniological measurements (Brodie 1994). Unfortunately, none of the skeletons were sufficiently well-preserved to test this hypothesis. However, other factors might suggest

that the Bunyan Centre burials indicate an influx of settlers. The earliest burial (SK368) and the secondary Beaker burial (SK215) were both adults buried in the crouched position. Burial (SK314), however, was of a sub-adult skeleton buried in a prone position. These differential burial practises could represent different social groups although age as a basis of social position has been found to affect burial practices (Carr 1995). The secondary Beaker burial may have been an attempt to revive an ancient burial tradition and thus re-establish links with the builders of the oval barrow. Thomas suggests that Beakers were deposited in graves at times of social stress as a means of emphasising links with the legitimate authority of the past (Thomas 1991). Both of the crouched burials faced west, body orientation can reflect society's belief about the after-life (Carr 1995), which may indicate shared beliefs between the constructor's of the oval barrow and the Beaker grave.

The hengiform monument at the Bunyan Centre would have continued to be a significant feature of the landscape well beyond the end of the Beaker period. However, the Iron Age pottery in the upper fills of the hengiform ditch is probably derived from later occupation or agriculture rather than ritual activity. Nevertheless, the Early Iron Age carinated jar in the bottom of the well to the north, may have been a votive offering and could indicate continuing ritual activity, albeit slightly removed from the earlier monument. This suggests similarities with several of the Neolithic and Bronze Age ceremonial complexes along the Ouse Valley which also became the focus of later ritual activity (Malim forthcoming).

The unenclosed Early to Middle Iron Age settlement in the north of the site is significant as such sites are relatively rare in the Ouse Valley. The Later Iron Age enclosure is likely to have been peripheral to the adjacent site excavated under the John Bunyan School.

ACKNOWLEDGEMENTS

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Iron Age settlement within the Oxford Clay Vale at Beancroft Road, Marston Moretaine

DREW SHOTLIFF AND JACKIE CRICK

With contributions by John La Niece and Terry Jackman

Illustrations by Cecily Marshall

SUMMARY

In comparison to the densely settled gravel terraces of the Great Ouse, the Oxford Clays of the vale of Marston had until recently produced relatively little evidence for Iron Age settlement. However, a watching brief carried out during a housing development on a parcel of land on the NW side of Marston Moretaine has helped to redress this apparent imbalance. Evidence was recovered for both pre-'Belgic' and 'Belgic' settlement. Traces of a medieval field system were also recorded.

INTRODUCTION

This report summarises the results of an archaeological watching brief maintained during a housing development on land off Beancroft Road, Marston Moretaine, Bedfordshire (SP 9921 4156). The archaeological work was undertaken by staff from Bedfordshire County Archaeology Service (BCAS) between October 1995 and December 1996 on behalf of the developer, Bellway Homes (North London). The site archive is held by Bedford Museum (accession number 1995/95).

SITE LOCATION AND DESCRIPTION

Marston Moretaine lies approximately 10km SW of Bedford, within the vale of Marston (Fig 1). To the N and W of the village the land rises to a maximum of 117m OD, where the Jurassic Clay Ridge (mantled by glacial drift Boulder Clay) forms one of the interfluvies of the River Great Ouse. 5km to the S lies the distinctive relief of the Lower Greensand Ridge. Within the valley floor itself heavy, poorly drained, non-calcareous gley soils of the Rowsham Association overlie the Oxford Clays (King 1969, 20-21).

The 2ha, L-shaped development area lay on the NW side of the village. It was skirted to the NW by the A421 Marston Moretaine bypass and was flanked to the NE by Beancroft Road. An earlier phase of residential housing occupied the area to the SW. The site sloped gently upwards from SE to NW at approximately 45m OD. It was under permanent pasture at the time of the archaeological fieldwork.

ARCHAEOLOGICAL BACKGROUND

Historically, evidence for Iron Age settlement on heavy clay soils throughout Bedfordshire has been sparse. Simco (1973, 14) noted a general absence of finds from the higher Boulder Clay in the N of the county despite intensive fieldwork and the identification of some sites in the NW (Hall and Hutchings 1972). The Jurassic Gault Clay around Barton le Clay has produced evidence for Iron Age sites (Hall 1991) but the Oxford Clays of the vale of Marston have been specifically described as 'one of the largest gaps on the map' in terms of both pre-'Belgic' and 'Belgic' settlement (Simco 1984, 21). It is now generally accepted that this distribution pattern has been skewed both by modern land use and by the differing susceptibility of soil types to aerial photography. While it is clear that the favoured occupation areas were the lighter soils of the Great Ouse catchment and the chalk uplands to the S of the county, the true settlement pattern is likely to have been more complex.

For example, on the Boulder Clay in the N and NW of the county aerial photography is revealing an increasing number of cropmark sites, possibly due to the depth of ploughing. In particular, within the parishes of Melchbourne, Thurleigh and Yelden isolated farmsteads have been identified which may be evidence for occupation from the late Iron Age into the Roman period (Clark and Dawson 1995, Fig 23).

A similar phenomenon may also be observed closer to Marston Moretaine itself. Study of aerial photographs from the vale of Marston in general suggests that many of the recently identified cropmarks are only apparent on a localised basis on soils that are relatively gravel-rich (pers. comm. Stephen Coleman). A vertical aerial photograph taken in 1996 of the area between the village and the Stewartby brick pits (1km ENE of the development area) have for the first time clearly revealed a group of enclosures (HER 15321). Superficially, these appear to include a possible 'banjo' enclosure (Fig 1), a type generally attributed to the middle Iron Age and often deemed to be associated with cattle ranching, despite the presence of often

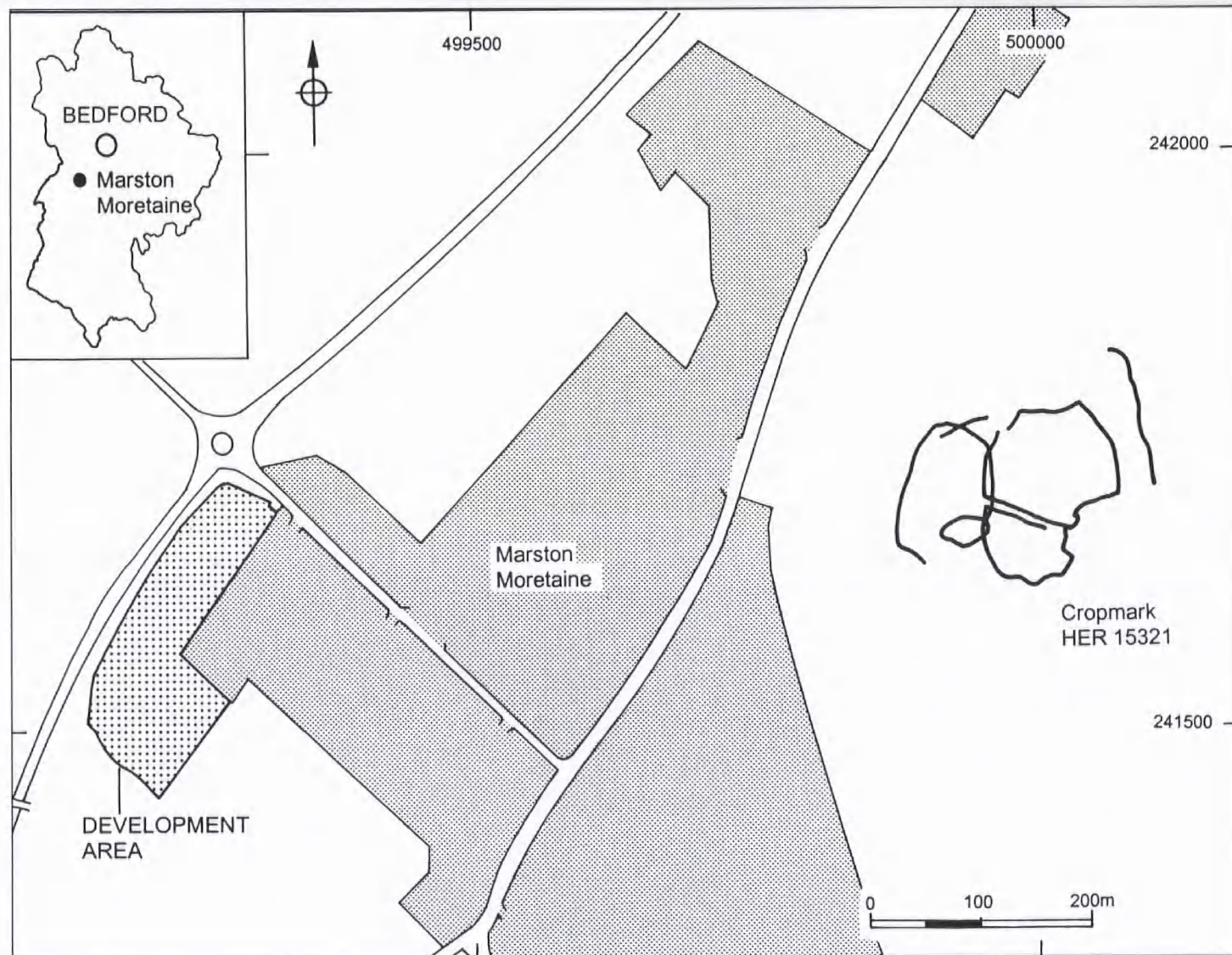


Figure 1 Location of development area and cropmarks of enclosure complex

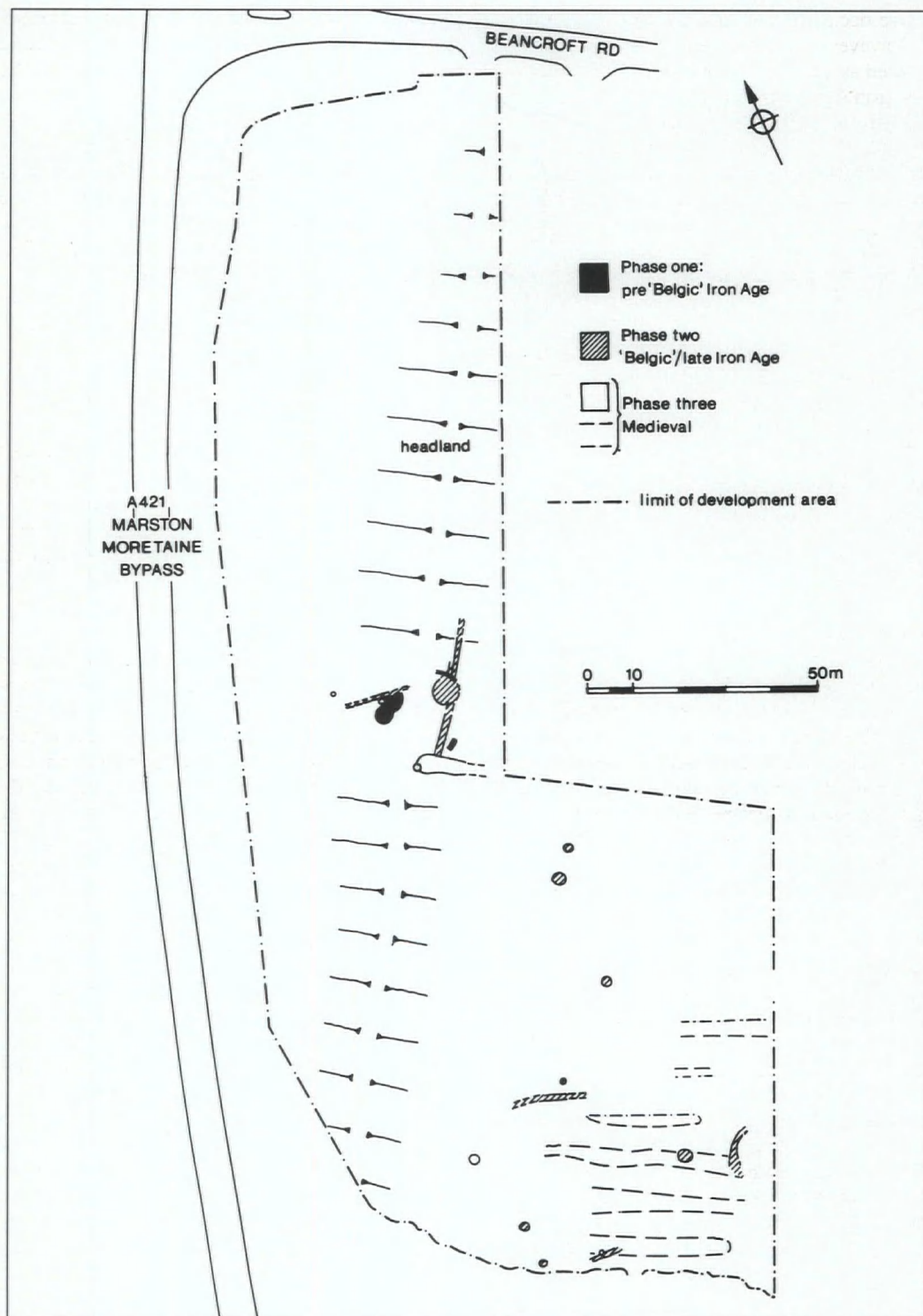


Figure 2 Phases 1-3: all features plan

extensive occupation evidence (Cunliffe 1995, 52-53). However, the cropmarks are perhaps best interpreted as a cluster of enclosures, representing a ditched Iron Age farmstead site which has been substantially re-modelled at least once.

The only other record of Iron Age occupation in the vale of Marston comes from a recent small scale excavation within the modern built-up area of Wootton, 5km to the N. Evidence for settlement activity during the 1st-2nd centuries AD was established and a large quantity of 'Belgic' pottery was recovered (Pollard and Baker 1999, this volume).

Prior to the watching brief in 1995-96 there was no indication that the development area might contain evidence for Iron Age occupation. Aerial photographs taken in 1946 showed surviving ridge and furrow, probably part of the field system associated with the medieval settlement of Marston Moretaine (Crick 1999, this volume). These earthworks were subsequently ploughed out and by the time of the fieldwork a low NNW-SSE running headland was the only surviving trace (Fig 2).

THE FIELDWORK (Fig 2)

An archaeological presence was maintained during all episodes of ground disturbance in accordance with the brief issued by the County Heritage Officer. The nature of the topsoil stripping was variable and the visibility of archaeological deposits was, as a result, generally poor. It was only occasionally possible to define features extensively in plan; they were more easily detected in the sides of foundation and service trenches.

The archaeological features were largely isolated with only occasional intercutting. The structural phasing has, therefore, relied to a large degree on the ceramic assemblage. Three broad chronological phases have been defined: pre-'Belgic' Iron Age, late Iron Age/'Belgic' and medieval.

PHASE ONE: PRE-'BELGIC' IRON AGE SETTLEMENT

Activity attributable to the pre-'Belgic' period was restricted to a scattering of features within the centre of the development area where the presence of the medieval headland appears to have enhanced archaeological survival. A pair of intercutting pits lay to the SW of a shallow, NW-SE aligned boundary ditch. The N edge of the later pit was truncated by a hearth [69] which also produced pre-'Belgic' pottery. A later feature in this area also contained residual pre-'Belgic' material.

Both pits were sub circular in plan, 3.5m-4m in diameter and >900mm deep. The earlier feature [73] had an asymmetrical profile and had been infilled by a sequence of at least five deposits. Occupation debris, including charcoal and pottery from the lower three fills attested the presence of a focus of occupation nearby. The upper fills comprised silted, artefactually sterile deposits. Intrusive material present in the ceramic assemblage from the later pit [71] may be attributed to the presence of the medieval headland.

This relatively low density of features appears to represent peripheral settlement activity, with the focus of occupation lying further to the W or E.

PHASE TWO: LATE IRON AGE/'BELGIC' SETTLEMENT

The density of archaeological features containing 'Belgic' pottery indicates a more extensive development of the site during the late Iron Age. Evidence for this period of occupation covered a 135m x 40m zone in the S half of the development area. It was characterised by several obliquely aligned ditches, scattered pits, structural cuts and a single cremation burial.

The presence of shallow ditches (up to 500mm wide x 200mm deep) suggests that this settlement may have been at least partially enclosed. In the absence of stratigraphic relationships, and with only relatively short stretches of ditch identifiable, little can be said about the exact form taken by these enclosures. However, their contrasting alignments, which transect the general spread of late Iron Age activity, do suggest several episodes of spatial re-organisation. Partial re-cutting of some of these boundaries attested their continued use and suggests a prolonged late Iron Age occupation of the site.

The remaining evidence for late Iron Age activity was typified by isolated pits and structural cuts. Other undated pits may be associated with this period of occupation on the basis of their close proximity to this activity. Generally the pits ranged in size from 1.1m x 1m x 400mm to 2.2m in diameter x 600mm deep. While not all had readily identifiable functions, at least two were probable rubbish pits. Evidence for structures or buildings was limited to largely isolated post holes towards the centre of the zone. In addition a curving gully, close to the SE edge of the development area and measuring >8m x 600mm wide x 190mm deep, may be the truncated remains of a roundhouse drip gully.

A cremation burial [3], found close to the S boundary of the development area adds a human

dimension to this settlement evidence. Cremated bone from an adult was found in a ceramic vessel, placed within a circular pit approximately 350mm in diameter. The burial was accompanied by two smaller ceramic jars.

The structural evidence certainly indicates an increase in settlement activity during the late Iron Age. The absence of definite structures or buildings may be the result of a combination of truncation by medieval ploughing and the conditions under which the watching brief was carried out. However, the presence of archaeological features close to the development area's boundaries, particularly to the S, may suggest that the main focus of occupation still lies undisturbed beneath modern pastureland.

PHASE THREE: MEDIEVAL FIELD SYSTEM

The available evidence suggests that occupation of the site ceased at the end of the late Iron Age/'Belgic' period and that no further activity took place until the early medieval period. A single NW-SE aligned boundary ditch in the centre of the development area and a few scattered small pits and post holes suggest a low level of activity during this phase. This area is likely to have been peripheral to the medieval settlement of Marston Moretaine, the centre of which lay some 300m to the SE. Recent work (Crick 1999, this volume) recovered evidence for 12th-13th century ditched boundaries, replaced by an open field system. The Beancroft Road site with its slight traces of occupation activity (apparently) superseded by a field system comprising a headland and a series of furrows complements this picture of medieval settlement in the area.

THE FINDS

John La Niece

THE POTTERY

A total of 661 sherds, representing the remains of 115 vessels and weighing 5748g, was recovered (Table 1). Twenty-two fabric types were recognised, ranging in date from the pre-'Belgic' Iron Age to the late medieval period. These types are listed below in chronological order and are identified by the standard codes in the Bedfordshire Ceramic Type Series (held by BCAS). A number of attributes were recorded, including abrasion, sooting, wear marks and decoration.

Standard drawing conventions were used, with selected vessels shown at one quarter size, external view on the right and a section and internal view on

the left (Figs 3-4). The illustrated pottery is both hand made, shown with a hatched section, and wheel made, shown with a solid section. The pie diagram at the bottom of the illustration indicates the extent of the vessel surviving.

The pottery was quite badly worn, with 82 of the 115 vessels showing evidence for abrasion. The majority of the abraded vessels (62 in all) were of Iron Age date.

Pottery type series

Pre-'Belgic' Iron Age

F03 Sand and grog tempered

Fabric: fully described by McSloy (1996, 21).

Forms: 2 undiagnostic body sherds.

F14 Fine mixed

Fabric: fairly hard, smooth through to rough fabric, with reddish-brown through to dark brown surfaces and a black core. Contains moderately sorted, rounded and sub-rounded, fine to coarse calcareous inclusions, up to 0.8mm in size,

Forms: 12 undiagnostic body sherds.

Comments: large quantities of this type have been found at the Iron Age settlement of Salford, where it has been tentatively dated to the early-middle Iron Age (BCAS in prep).

F28 Fine sand tempered

Fabric: fully described by La Niece (1999, this volume).

Forms: single undiagnostic body sherd.

F30 Sand and calcareous tempered

Fabric: fully described by La Niece (1999, this volume).

Forms: a handle fragment from a possible cooking vessel and 4 undiagnostic body sherds.

F33 Grog and calcareous tempered

Fabric: Fairly hard, smooth fabric, with reddish-brown surfaces and a black core. Contains frequent fine, poorly sorted rounded grog inclusions, 0.1 to 0.2mm; frequent, ill-sorted, fine to medium subangular calcareous inclusions, 0.2 to 0.4mm, occasionally occurring up to 5.0mm in size, and poorly sorted, moderate fine to coarse organic material, 0.1 to 0.8mm, indicated by linear voids in the surfaces.

Forms: single undiagnostic body sherd.

'Belgic' Iron Age

F05 Grog and shell tempered

Fabric: described by Dawson (1988, 11).

Forms: single undiagnostic body sherd.

F06A Fine grog tempered

Fabric: grog inclusions from 0.1- 0.5mm.

Form: 7 undiagnostic body sherds.

F06B Medium grog tempered ware

Fabric: grog inclusions from 0.5mm- 1.5mm.

Forms: jars, one small dish and undiagnostic body sherds. This type makes up 27.8% of the total pottery assemblage. Illustrations: 2.

F06C Coarse grog tempered ware

Fabric: grog inclusions which may be up to 4.0mm.

			Pottery types																			Fired clay					
Phase	Feature	Feature type	F03	F14	F28	F30	F33	F05	F06A	F06B	F06C	F08	F09	F34	R04B	A16	B01	C12	B07	C79	C11	C05	E01	E01D	Type 1	Type 2	Tile
3	62	pit															2										
	60	pit															1										
	47	furrow										1															
	33	furrow																1	1	1	2	3		1			8
	31	pit															4										
	15	furrow															3									4	
2	67	ditch										1															
	58	pit		10	1																						
	57	ditch						1		2	4	1	3				3									5	
	45	ditch															1										
	37	pit (?rubbish)				3				8		5	1	1												17	
	27	stakehole											1														
	25	ditch							1	2	2	6	9	6												395	
23	pit (?rubbish)								2	1	4	1			1											16	
	3	cremation burial				1				2	1																
1	73	pit		2																							
	71	pit					1						1										1				
	69	hearth	2																								
	51	ditch										1				1											
Total			2	12	1	4	1	1	1	16	8	18	16	7	1	1	10	1	1	1	2	3	1	1	26	411	8

Table 1: Quantification of phased pottery (vessel count) and fired clay (weight in gms)

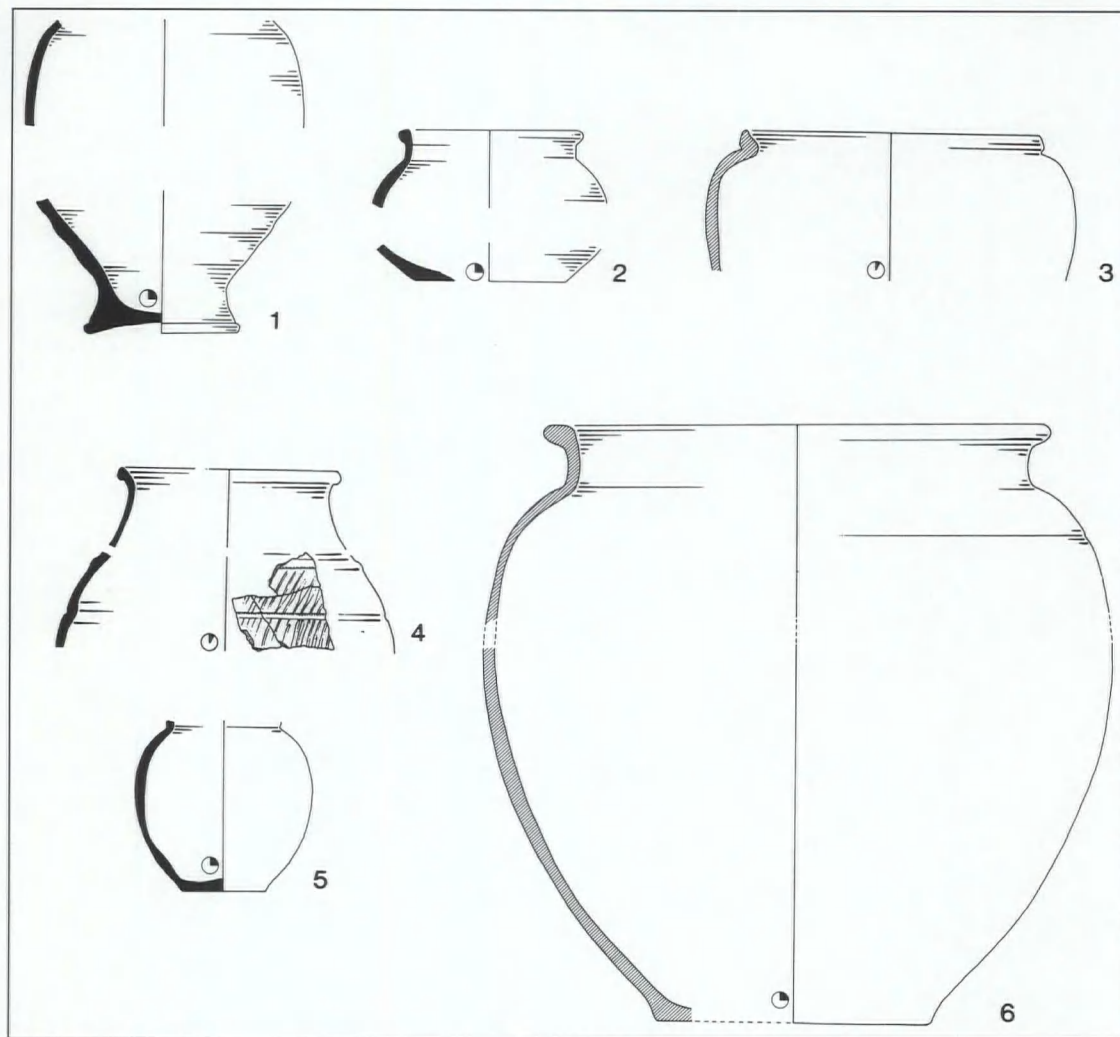
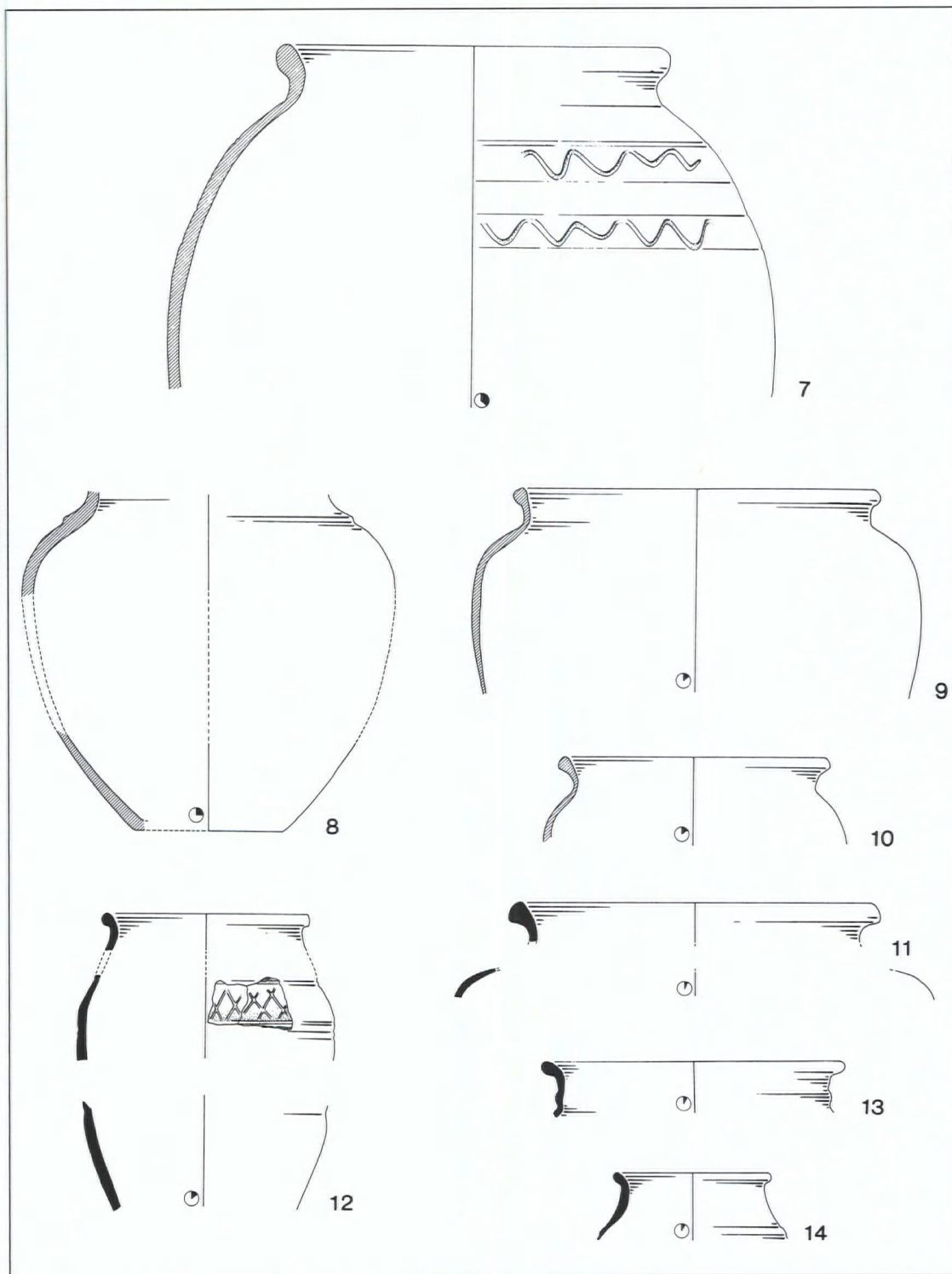


Figure 3 Phase 2: 'Belgic' Iron Age pottery (1:4, nos. 1-6)

No.	Fabric code	Description	Form	Feature	Comments
1	F06C	coarse grog	jar	cremation 3	
2	F06B	medium grog	jar	cremation 3	
3	F08	shell and grog	lid-seated jar	pit 23	
4	F34	'Belgic' sandy	necked jar	ditch 25	incised decoration
5	F34	'Belgic' sandy	jar	ditch 25	
6	F06C	coarse grog	storage jar	ditch 25	
7	F09	sand and grog	storage jar	ditch 25	horizontal incised grooves and wavy decoration
8	F09	sand and grog	storage jar	ditch 25	
9	F09	sand and grog	necked jar	ditch 25	
10	F09	sand and grog	jar	ditch 25	
11	F09	sand and grog	storage jar	ditch 25	
12	F09	sand and grog	cordoned jar	ditch 25	abraded acute lattice decoration
13	F09	sand and grog	cordoned jar	ditch 25	
14	F09	sand and grog	cordoned jar	ditch 25	

Table 2: Illustrated pottery



Forms: jars, one with a foot ring base, and storage jars were found, along with undiagnostic body sherds; a pre-fired hole in a base sherd was also noted.

Illustrations: 1, 6.

The above types F06A, B and C are described and discussed by Stead and Rigby (1986, 65) and Thompson (1982, part I, 22).

F08 Shell and grog tempered

Fabric: discussed by Dawson (1988, 11)

Forms: jars, including some with lid-seats, bowls and undiagnostic body sherds.

Illustrations: 3.

F09 Sand and grog tempered

Fabric: described by La Niece (1999, this volume).

Forms: lid-seated jars, cordoned jars and storage vessels; two sherds formed part of a handle. Decoration includes lattice, incised wavy lines and grooves.

Illustrations: 7-14.

F34 'Belgic' sandy

Fabric: hard, fairly rough fabric, with orangey-brown through to black surfaces and a mid-grey core. Contains moderate, poorly sorted, fine to coarse subangular quartz, 0.1 to 0.7mm.

Forms: jars, one with incised decoration.

Illustrations: 4-5.

R04B Gallo-Belgic white ware

Fabric: a fine cream gritty fabric, smooth to the touch and abraded.

Forms: undiagnostic body sherds.

A number of post-Roman pottery types were identified: Anglo-Saxon type A16 (coarse sand tempered); early medieval types B01 (St Neots type), C12 (Stamford ware), B07 (medieval shelly ware), C79 (fine slip-decorated), C05 (sandy ware); late medieval types C11 (Brill/Boarstall type), E01 (late medieval reduced ware) and E02 (late medieval oxidised ware).

Discussion

A small quantity of pottery was tentatively dated to the pre-'Belgic' Iron Age. No diagnostic forms are present and the dating derives solely from the fabric types, which occurred elsewhere in the county at this date.

'Belgic' pottery has a long lifespan in this area, and in some instances lasts well into the 2nd century AD (Marney 1989, 90). The majority of the late Iron Age vessels came from pits and ditches. They were probably deposited as rubbish as these features were going out of use. However, the assemblage in ditch [25] may represent an example of deliberate, 'structured' deposition. The vessels are relatively substantial and were mainly confined to the terminus of the recut ditch, indicating that major dispersal of sherds had not occurred. The assemblage is characterised by a variety of sand and grog tempered jars (F09) (see Table 2 for details). Within the county similar deposits in ditch termini

have been noted at Ursula Taylor, Clapham (Dawson 1988). The phenomenon and significance of 'structured' deposition during the Iron Age has been extensively discussed by Hill (1995).

Evidence for the function of the Iron Age vessels is slight. Four vessels display external sooting, suggesting domestic use as cooking vessels. Two rims are sooted externally and internally, but without the rest surviving a possible use cannot be suggested. Two vessels had white internal residues, suggesting that some form of liquid had been boiled within the vessel. A single base sherd had a pre-fired hole, suggesting use as a sieve or strainer.

The majority of the vessels are plain. Two vessels of sand and grog tempered ware (F09) are decorated with incised motifs and one vessel of 'Belgic' sandy ware (F34) has stabbed decoration.

Three grog tempered vessels were recovered from the cremation burial. The urn itself, fabric F06B, is the largest of the three vessels. However, it was badly damaged and is of indeterminate form. It was accompanied by two jars in fabrics F06B and F06C (nos. 1-2) one of which had no surviving rim while the other had parts of the body missing. The vessels are poorly made and of local manufacture albeit in the 'Belgic' tradition. The cremation group is of relatively low status, with no additional grave goods apparently surviving. In contrast, a 1st century BC, high status cremation group from the nearby site at Salford, in the W of the county, comprised 'Belgic' vessels with copper alloy brooches. A high status cremation burial was also found at Norton Road, Stotfold, with 'Belgic' vessels and associated grave goods (BCAS in prep).

CERAMIC BUILDING MATERIAL

Miscellaneous fired clay

A total of 42 fragments of fired clay, weighing 476g, was recovered. Two fabric types were identified:

Type 1: Sandy

Light brown to dark red throughout and sandy to the touch. Contains quartz, up to 4mm in size, and frequent calcareous inclusions, between 0.5mm and 0.9mm (many have leached out).

Type 2: Sand and organic

Orange/red surfaces and core (although 4 fragments have grey/black cores), and sandy to the touch. Contains frequent, ill-sorted quartz, between 0.5mm and 3mm. Also common are linear voids between 2 and 7mm where organic inclusions have leached out.

Late medieval/post medieval roof tile

One fragment, weighing 8g, was recovered from furrow [33].

Discussion

With the exception of a small quantity from furrow [15], the fired clay was recovered solely from Phase 2 late Iron Age features (Table 1). The two types did not occur together in the same contexts. Their form and appearance suggested that the type 2 fragments may have originated from a hearth or kiln, while the type 1 fragments may have come from structures (although no wattle impressions were visible). The majority of the type 2 fragments were recovered from the pottery-rich deposit in ditch [25]. Like the pottery the fired clay suggests the presence of a settlement in the vicinity.

CREMATED HUMAN BONE

Terry Jackman

The single cremation from the study area contains the remains of an adult individual. The recovered bone weighs 1040g with identifiable fragments from the skull, ribs, vertebrae, tibia, fibula, humerus, patella, phalanges and carpals. The largest fragment (35.6mm long) is a piece of rib.

The fragments of bone vary in colour from white and grey to black and buff. The black and sooted fragments come from the inside of the skull and the long bones, such as the tibia and femur. A few fragments of the latter are also partially unburnt. There is very little distortion of the bone but most fragments show signs of transverse and longitudinal cracking.

The cremation has not burned very well with some black and sooted fragments and some that are unburnt. There are several reasons why this may occur: the type of fuel used (different species of tree produce different results in temperature and flame) was not suitable or the weather conditions had some influence on the day. If the skeleton had been defleshed before the cremation or if the body was particularly emaciated, then there would not be the fat needed to assist combustion. Likewise, if the pyre collapsed and cut off the air supply, the fire would die out fairly quickly.

Discussion

Despite the limited scale of the work, the watching brief at Beancroft Road has made a useful contribution to our understanding of the pattern of Iron Age

settlement within Bedfordshire. Known areas of Iron Age settlement within the county were, until very recently, predominantly riverine. Occupation, it appeared, had favoured the lighter soils along the first gravel terrace of the river Great Ouse. With the discovery of probable contemporary farmsteads on the claylands of north Bedfordshire, which complement those reported by Hall and Hutchings (1972), and the work reported on here, a more balanced picture of Iron Age settlement distribution is beginning to emerge. It is now clear that areas of heavy clayland like the vale of Marston were not devoid of settlement during this period.

Both the structural and artefactual evidence for pre-‘Belgic’ activity at Beancroft Road was limited. A scatter of features, producing a small pottery assemblage, was recorded beneath the remains of a medieval headland. Simco (1984, Fig 5) demonstrated that in Bedfordshire few early-middle Iron Age settlements were succeeded by ones of ‘Belgic’ date. Although the evidence is slight, the results of the investigations at Beancroft Road appear to be at variance with this.

The ‘Belgic’ period was represented by the remains of a settlement, which was probably at least partially enclosed. A possible drip gully and structural daub attest the presence of buildings on the site. A sizeable pottery assemblage, at least in part the result of structured deposition, was recovered both from the ditches and from a small number of probable rubbish pits. Finally, the burial provides another example of the late La Tène cremation tradition, known as the Aylesford culture. This rite was practised extensively in the modern counties of Bedfordshire, Buckinghamshire and Hertfordshire. The burial from Beancroft Road appears to be part of a dense concentration, focused on the Baldock-Hitchin-Letchworth area, but extending westwards to include examples from Old Warden, Stanfordsbury and perhaps Kempston (Whimster 1981, 153).

Given the paucity of evidence and in particular the absence of faunal or charred plant remains, it is impossible to reach any firm conclusions about the nature of the settlement at Beancroft Road. It appears to have been a relatively low status, domestic settlement. Similarly, little can be said about its exact form. However, a useful model may be provided by the general trend typical of elsewhere in the county, which sees small scale dispersed farmsteads, characterised by repeated occupation of preferred sites (Dix 1980, Clark and Dawson 1995).

The identification of an enclosure complex of probable Iron Age date to the E of Marston Moretaine and the discovery of 'Belgic' pottery at Wootton, 4.7km to the N, suggest that the possible farmstead at Beancroft Road is not an isolated occurrence in this area and that the clay soils were not such a hindrance to occupation as may previously have been thought. There is every reason to suppose that future re-development in this area will continue to reveal evidence for Iron Age settlement. Hopefully, future archaeological investigation, on a larger scale than that undertaken at Beancroft Road, will enable comparisons to be made between such sites and the more fully investigated settlements of the nearby Great Ouse terraces.

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An enclosed, pre-“Belgic” Iron Age farmstead with later occupation at Hinksley Road, Flitwick

MIKE LUKE

With contributions by Christiane Meckseper, Ed McSloy, Mark Robinson and Lisa Moffett
Illustrations by Lisa Padilla and Cecily Marshall.

SUMMARY

Evaluation and subsequent excavation, as part of a mitigation strategy under PPG16, in advance of a housing development on the outskirts of Flitwick revealed settlement activity from the Iron Age through to the Saxon period. The earliest settlement, originally unenclosed but subsequently enclosed, was established during the middle Iron Age on a low ridge in the upper Flit valley. The available evidence suggests the enclosed farmstead may have been based on a largely pastoralist economy. The study area was devoid of late Iron Age/early Roman activity with a new settlement established in the 2nd century AD. Traces of Early to Middle Saxon occupation were also recorded.

INTRODUCTION

In 1993 a planning application was submitted for outline permission for residential development of 3.5 hectares of land on the NE edge of the town of Flitwick in Mid Bedfordshire (TL 03634/35677) (Figs 1 and 2).

Aerial photographs held in the County Council's Historic Environment Record (HER 573) suggested that the area contained significant archaeological deposits. In accordance with the guidelines contained in the Department of the Environment's *Planning Policy Guidance Note 16: Archaeology and Planning* an archaeological field evaluation was carried out by Bedfordshire County Archaeological Service (BCAS) between August and October 1993. The programme of archaeological works comprised aerial photograph interpretation, geophysical survey, field artefact collection and trial trenching. The results of the evaluation were used to design a mitigation strategy which included further open area excavation.

This report brings together the evidence for Iron Age to Saxon activity from all stages of the archaeological investigations.

SITE LOCATION AND DESCRIPTION

(Figs 1 and 2)

Topographically the development area is situated

towards the centre of the SW-NE aligned Greensand ridge. The River Flit is located 1.1km to the S and a small tributary of the Flit is situated 500m to the N. The confluence of these watercourses is located approximately 2km to the E.

The actions of the Flit and its tributary have divided the ridge in this area creating low-lying land to the N, E and S. Within the development area the ground surface sloped gently from N (70m OD) to S (65m OD). The underlying geology comprises sands and gravels overlying Lower Greensand which overlies Jurassic clays. Within the flood plain of the Flit and its tributary alluvial deposits overlie river gravels. The soils are imperfectly drained gleyed brown earth soils.

ARCHAEOLOGICAL BACKGROUND

(Figs 1 and 2)

The HER contains a considerable amount of evidence for the history of the Flitwick area from the immediate post-glacial period through to the present day.

Evidence for early prehistoric activity is largely confined to the discovery of artefacts during field artefact collection (Fadden 1975). Early prehistoric artefacts have been found in the vicinity of Ruxox Farm (Fadden 1970), 1km E of the study area. Residual Mesolithic and Neolithic lithics were recently discovered within Roman deposits during excavations by BCAS N of Ruxox Farm (Dawson forthcoming) and indicate successive phases of domestic activity. No contemporary structural or ceramic evidence was located to confirm this. Environmental evidence from these excavations suggests woodland clearance had commenced by c.3500BC, being followed by regeneration on the edge of Flitwick Moor.

Bronze Age activity is also indicated by finds of artefacts. There are no domestic sites and few funerary monuments (in contrast to the Ouse Valley). One of the identified burial monuments in the Flitwick area is located 100m E of the study area and consists of a double ring ditch (HER 15311) visible on aerial photographs, presumably the

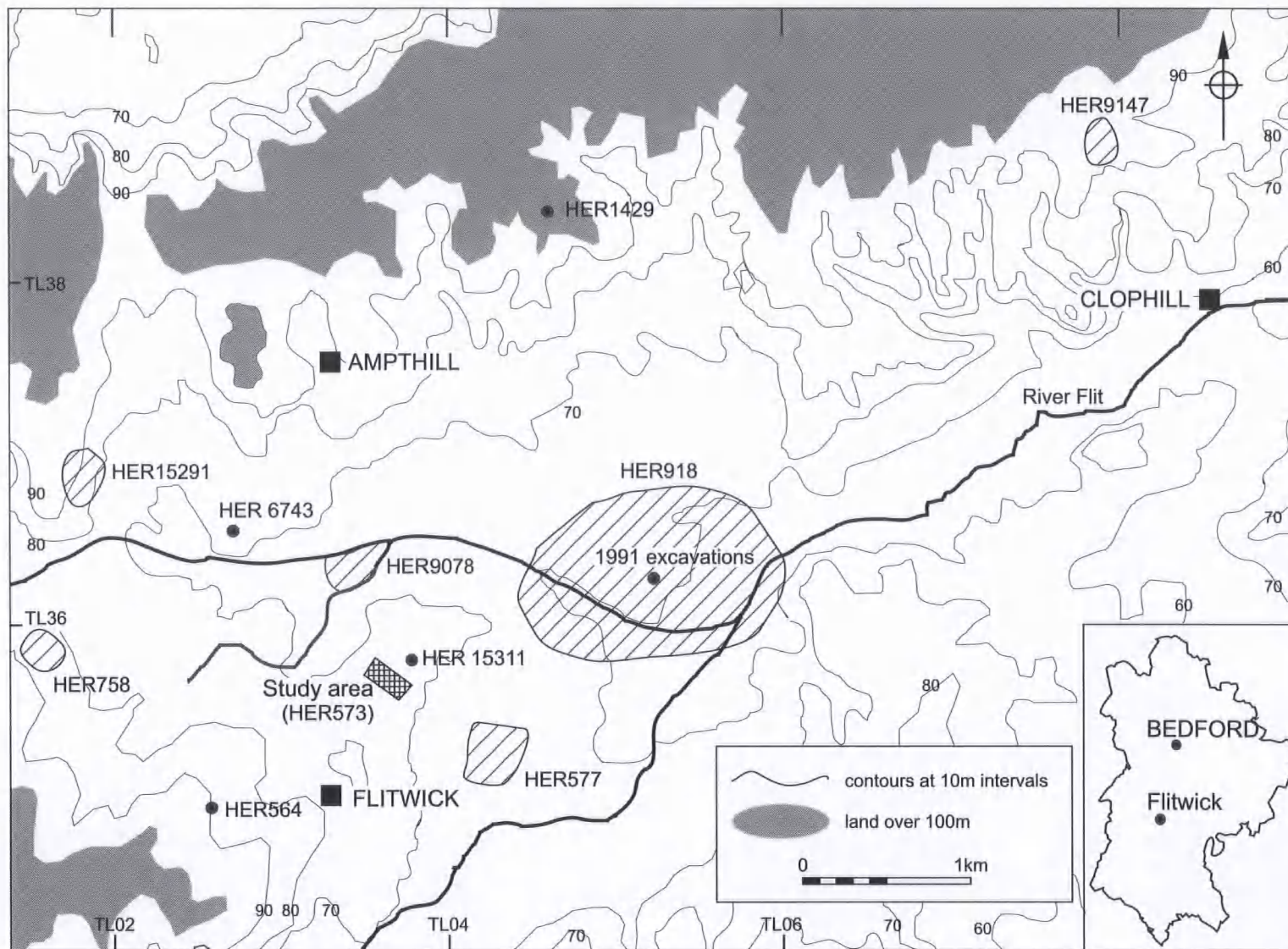


Figure 1 Topography and known archaeological sites in the area

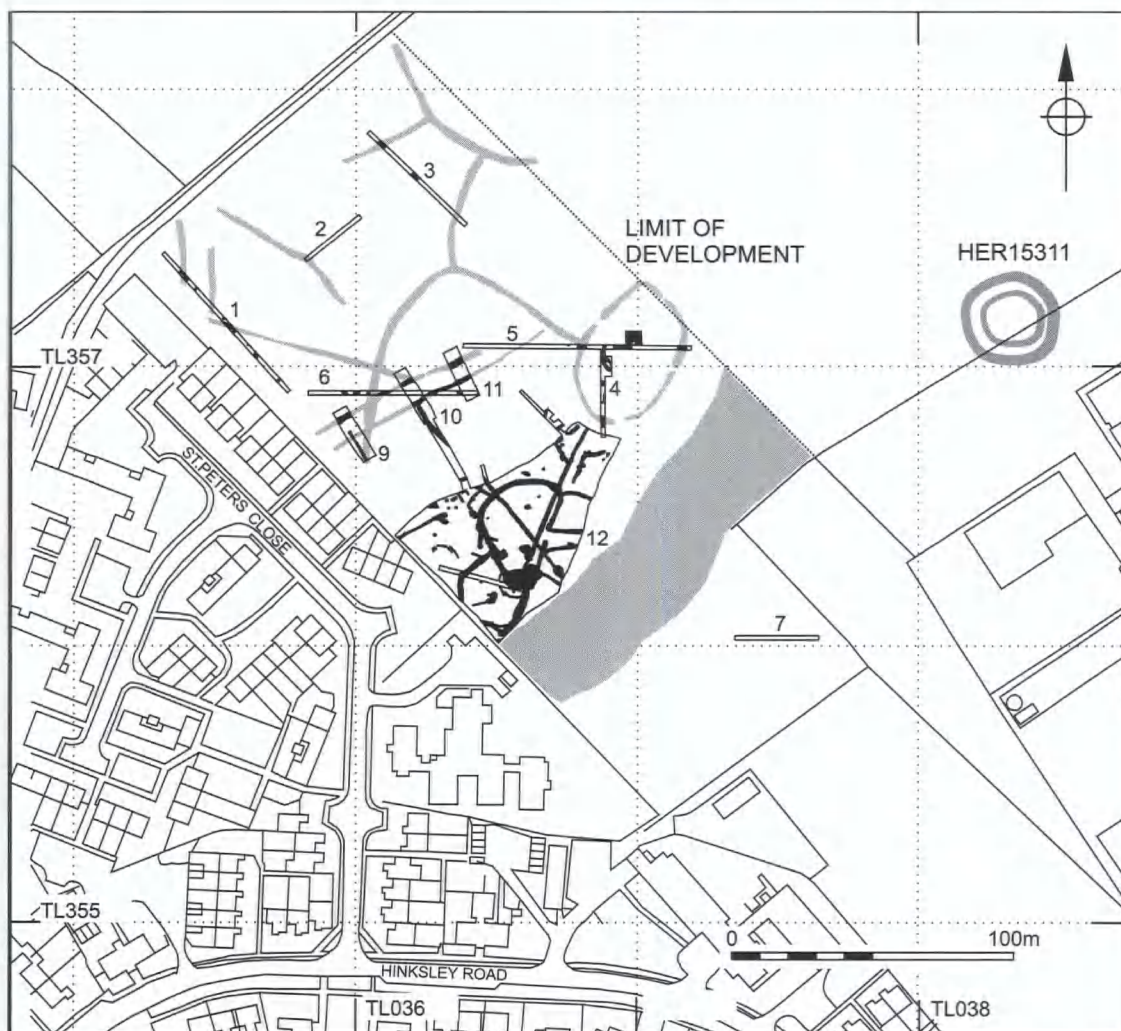


Figure 2 Limits of study area, with trench locations, all excavated features and cropmarks

plough damaged remains of a burial mound.

A number of cropmark sites (HER 758 and 15291) in similar topographical locations to the study area may be of middle Iron Age date. However, on the recent BCAS excavations near Ruxox Farm the only pre-"Belgic" pottery recovered was residual in later features.

Located 1.3km NW of the study area was a group of pottery kilns (HER 6743). These kilns produced "Belgic" style vessels and continued to manufacture pottery into the 2nd century AD.

Approximately 1km E of the study area is an extensive area (possibly up to 10ha) of "Belgic" and Roman settlement (HER 918). This settlement is

centred on Ruxox Farm (possibly significantly) in the vicinity of the confluence of the Flit and a tributary. It lies both in the river valley and on higher ground to the N and S. Recent excavations by BCAS (Dawson forthcoming) to the N of the Flit located a series of Roman enclosures in a linear arrangement perpendicular to the valley bottom. Over the past 30 years the majority of the settlement has been subject to sporadic archaeological investigation, with much of the evidence unpublished, unpublishable or lost. Evidence has been claimed for the presence of a Roman road (two parallel ditches visible on cropmarks), buildings, a drying oven, pits, ditches and working hollows. Isolated

burials and a cremation cemetery have been located. The richness of the artefacts, which include coins, pins, brooches, intaglios, painted wall plaster, tesserae and pipeclay figures, suggested to Simco (1984) the possibility of a temple at the centre of the settlement.

Within 1km to the N and SE of the study area cropmarks (HER 9078 and 577 respectively) indicate ditches and enclosures; the former is associated with Roman pottery. A square ditched enclosure of 2nd century date was investigated at Manor Way (Fadden 1976). This contained a centrally located T-shaped drying oven, but no other evidence for occupation.

THE ARCHAEOLOGICAL INVESTIGATIONS

THE EVALUATION

The evaluation was organised in a staged sequence of investigative techniques. The results from each stage informed and partly determined the next stage of the fieldwork. Study of the aerial photographs suggested that a number of the cropmarks were archaeological in origin, including two parallel ditches and a sub-circular enclosure. These were intermixed with a number of geological features, which were particularly dense to the S of the presumed enclosure.

A geophysical survey (GSB 1993) both confirmed the survival of features visible on the aerial photographs and located additional ones. It was possible to distinguish between geological (negative magnetic anomalies) and archaeological (positive magnetic anomalies) features.

Although 159 pieces of worked flint were recovered during surface artefact collection, the majority was not diagnostic and did not display any significant spatial patterning. The scarcity of pottery was striking. Only 15 sherds were recovered, one of Roman date, the remainder medieval or post-medieval.

Eight trial trenches were opened to test aerial photograph or geophysical anomalies and to investigate areas where no such features had been detected.

MITIGATION STRATEGY

The results of the field evaluation (BCAS 1993) were used to amend the development design, in order to minimise destruction of Iron Age and Roman settlement remains and to reduce

expenditure on large scale archaeological excavation. The mitigation strategy was based on the three zones of archaeological interest identified during the evaluation. Zone 1 contained the sub-circular settlement enclosure and was removed from the development. The area of Iron Age and Roman settlement between the enclosure and the western limit of the development (Zone 2), together with the parallel ditches (Zone 3) were considered significant enough to warrant full excavation prior to development.

THE EXCAVATION METHODOLOGY

The open area excavations, awarded following a tender competition, were undertaken by BCAS during October and November 1995 based on the submitted project design (BCAS 1995a).

The main area of excavation (area 12) comprised an approximately triangular area, 75m by 53m, over the Iron Age and Roman features (Zone 2). This area (2,953m²) was situated to the SW of the enclosure located in the evaluation. Three trenches (9, 10 and 11) were also opened to investigate further the supposed trackway represented by two parallel ditches (Zone 3). These covered a total area of 288m².

The overburden, generally comprising 0.35m of humic topsoil and in places 0.1m of a sandy gravel subsoil, was machined off under archaeological supervision.

All excavation and recording was carried out in accordance with Bedfordshire County Council's *Procedures Manual for Archaeological Fieldwork* (BCC 1996). The unique site recording number sequences started during the evaluation were continued.

POST-EXCAVATION METHODOLOGY

During analysis a structural hierarchy, consisting of sub-groups, groups, landscapes and phases, was defined. This report is arranged in order of phase, landscape and group. Sub-groups are not described.

Sub-groups form the basic, indivisible unit of interpretation, e.g. the primary fills of different excavated ditch segments. Groups represent more interpretative entities and may embrace several episodes of activity, e.g. the digging and initial filling of a ditch. Because upper fills generally provide only a broad *terminus ante quem* for the features in which they are found, such deposits were assigned to their own groups. At phase level these are denoted by the letter "B", e.g. Phase 3B represents the upper fills of features assigned to

Phase 3. Group numbers were also issued to geophysical and cropmark anomalies. Landscapes represent a collection of contemporary and spatially coherent groups, e.g. an enclosure and associated internal activity. Landscapes were assigned to a phase on the basis of stratigraphic and artefactual dating.

THE ARCHAEOLOGICAL SEQUENCE

Mike Luke and Christiane Meckseper

Despite the presence of prehistoric flint within the ploughsoil no contemporary sub-surface features were identified. Evidence for prehistoric activity within the study area has, therefore, not been assigned to a phase but is discussed below in the flint artefact section.

PHASE 1: GLACIAL DEPOSITS AND ICE WEDGES (Fig 2)

The natural substrata across the study area

comprised a light to mid orange-brown gravel mixed with occasional patches of yellow-orange sand and light orange-brown sandy clay. Several linear features located in trenches 1, 3 and 6 were probably glacial in origin. They were mainly aligned NW-SE or NE-SW. They measured between 1.20m and 3.10m in width and between 0.4m and 1.6m in depth. All these features had the irregular, sometimes V-shaped profiles, characteristic of ice wedges.

PHASE 2: UNENCLOSED, PRE-"BELGIC" IRON AGE SETTLEMENT (Fig 3)

The earliest settlement activity comprised three concentrations of structural features approximately 45m apart. These probably represent three farmsteads. In the absence of adequate dating evidence it is unclear whether they were occupied simultaneously or successively. However, the close spacing between them suggests they were probably not in use at the same time.

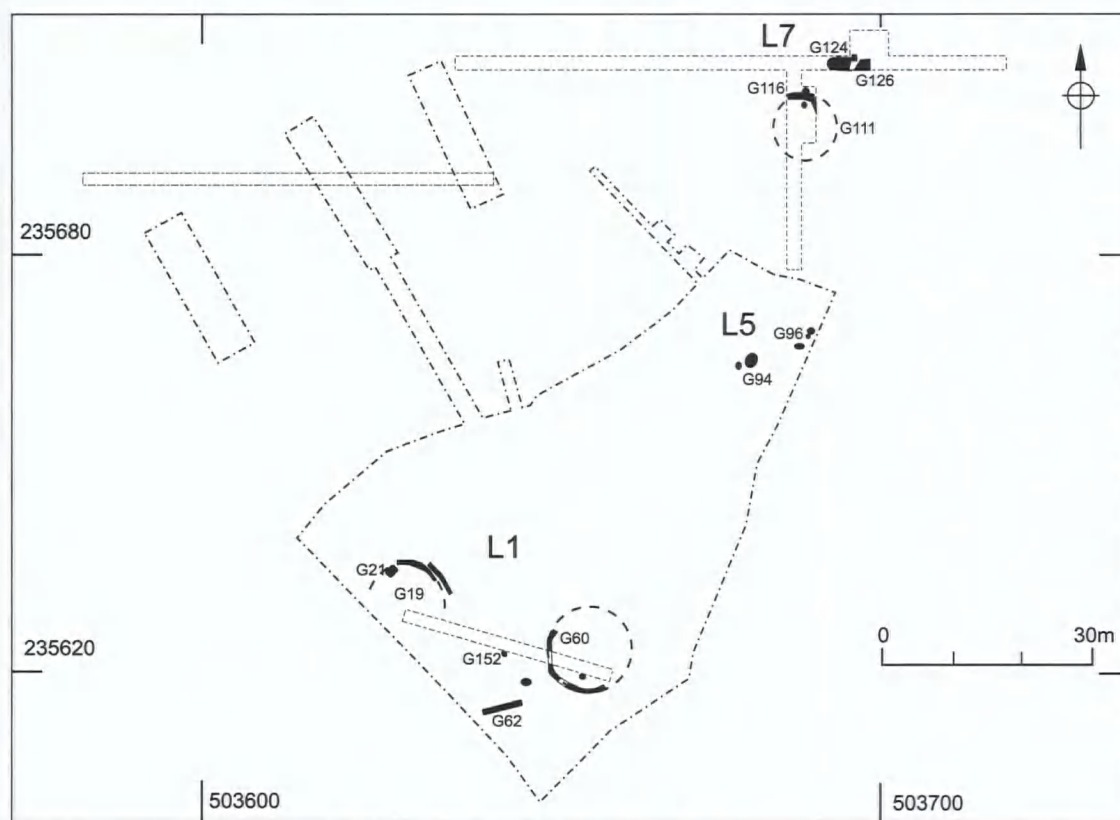


Figure 3 Phase 2: pre-"Belgic" Iron Age unenclosed settlement, all features plan

Farmstead L1

This farmstead comprised one roundhouse, a semi-circular structure, one isolated pit and isolated structural features.

Roundhouse G60

This roundhouse comprised a drip gully (Fig 4) and internal posthole. The western half of the roundhouse survived as a semi-circular gully with a projected diameter of 12m. The eastern half had been truncated by Phase 3 ditches and a Phase 5 pond. The gully was 0.35-0.45m wide and 0.2m deep, with symmetrical steep sides and a flattish base.

The posthole was located within the interior of the area defined by the drip gully, approximately 1.4m from its inner edge. It was circular in outline, approximately 0.5m in diameter and 0.1m deep. There was no evidence for a postpipe or packing material.

Both drip gully and posthole were filled (G61) by a mid grey silty sand with moderate quantities of stones, but only one sherd of pre-"Belgic" pottery (Fig 16.23).

Structure G19

This structure was located 20m NW of roundhouse G60 and comprised two partially parallel lengths of curvilinear gully with a projected diameter of 12m. The gullies were both

approximately 5.4m in length, 0.25m wide and 0.05m deep. Each had an irregular profile with slightly concave base.

Three stakeholes were situated in the base of the gully, just off its centre line. They were circular in outline, approximately 0.08m in diameter and 0.05m deep.

The nature of these gullies and their association with the stakeholes suggest they may be structural in nature rather than functioning as drip gullies. They probably represent a structure other than a roundhouse.

The gullies and stakeholes were filled (G20) by a mid grey brown sandy silt with frequent stones, but only two sherds of pre-"Belgic" pottery.

Pit G21

A rectangular pit (G21) (Fig 4) would have lain within the projected circumference of structure G19. It measured 1.30m in length, 0.90m in width and 0.34m in depth. Depressions in the two excavated corners of the pit suggest the presence of posts. It was possibly associated with structure G19 and may have had an uncertain specialist function.

The pit was filled by a mid grey brown sandy silt with frequent stones but no artefacts (G22).

Farmstead L5

This farmstead was situated 45m NE of farmstead L1. It is represented by two concentrations of postholes and small pits (G96 and G94 respectively) approximately 10m apart. It is probable that the main structural evidence for this farmstead is situated beyond the limit of excavation.

Postholes G96

Three sub-circular postholes were located 1.6m and 0.4m apart, on a SW to NE alignment. They measured 0.40-0.60m in diameter and 0.07-0.40m in depth with no evidence for the posts or packing material. These were filled by a deposit (G97) of dark grey brown silty clay with moderate quantities of stones.

Pits G94

Two further small sub-circular features and a slightly larger pit (G94) were situated 7m to the SW of postholes (G96) and may be related. The postholes were 0.55m in diameter and 0.7m deep and the pit was 1.2m in diameter and 0.15m deep. They were filled by a deposit (G95) similar to that within the other postholes.

Farmstead L7

A third area of activity, located during the evaluation, comprised one roundhouse and a concentration of small pits and postholes.

Roundhouse G111

The evidence for this roundhouse comprised a curvilinear feature, interpreted as a drip gully. This was excavated to a length of 4m and measured 0.80m in width and 0.60m in depth. Its projected diameter would be c. 10m. The gully had a steep sided profile with a concave base.

The drip gully was filled by a light yellowish brown silty sand with moderate quantities of stones, but no artefacts (G112).

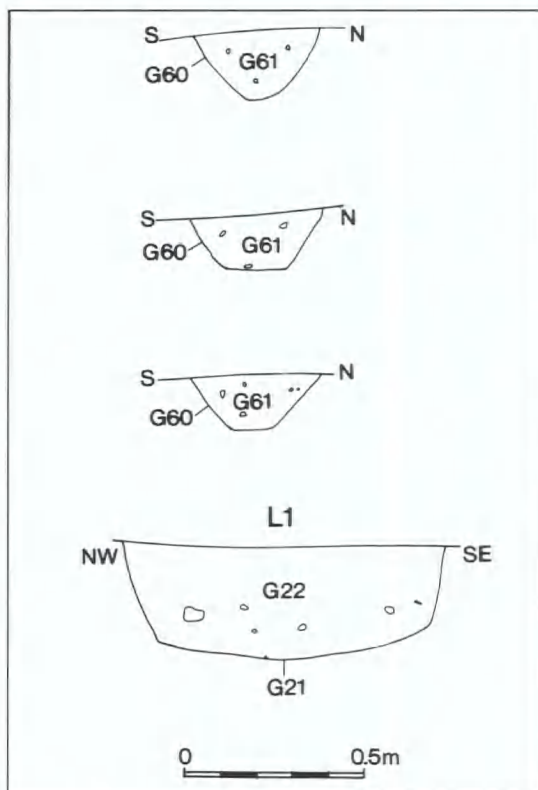


Figure 4 Phase 2: pre-"Belgic" Iron Age unenclosed settlement, sections. Drip gullies: G60 SS16/46, SS40/102 and SS40/103. Pit: G21 SS40/72

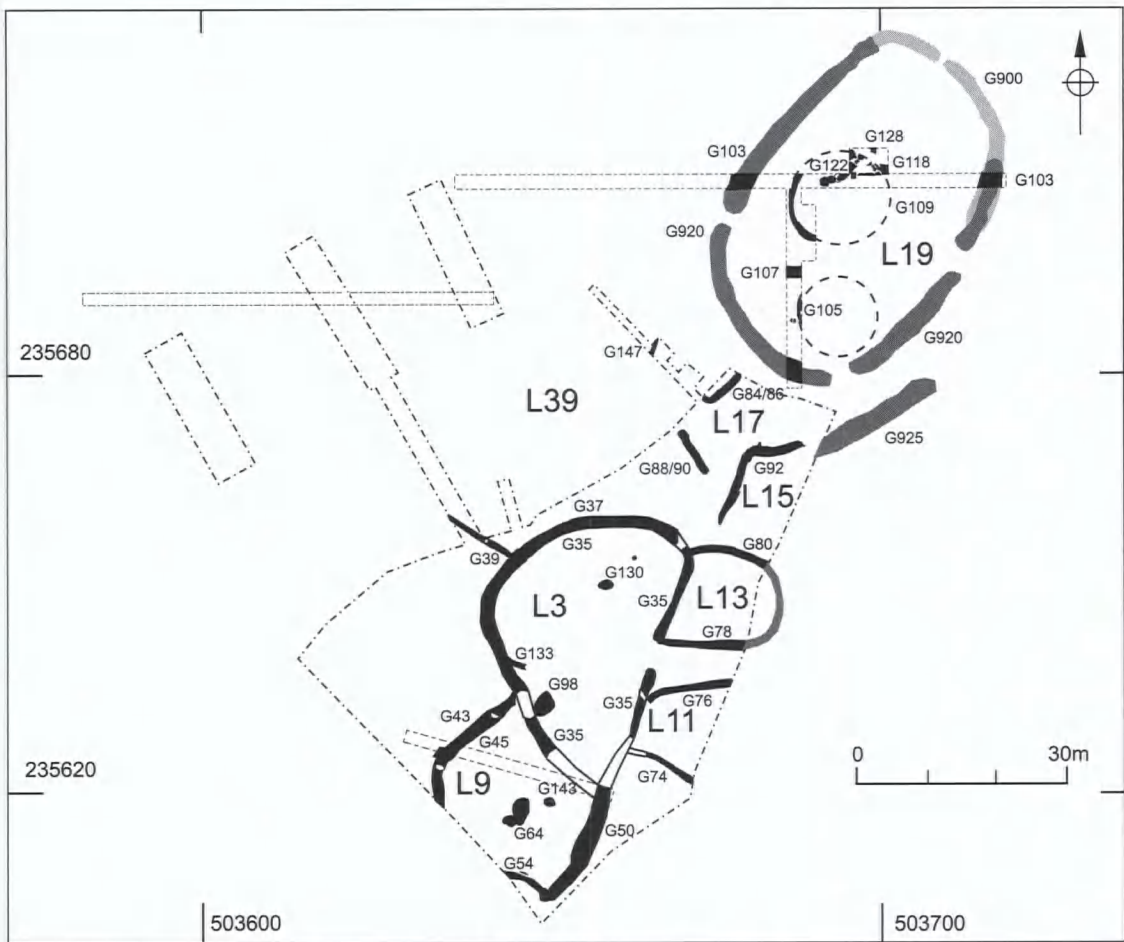


Figure 5 Phase 3: pre-"Belgic" Iron Age enclosed settlement, all features plan

Postholes G116

The gully may have been associated with a group of unexcavated sub-circular features (G116), although some of these were clearly earlier in date. The postholes were filled by a mid to light brown silty sand with moderate stone inclusions (G117).

Pits G124 and G126

These were located to the NE of roundhouse G111. Later occupational features considerably truncated them and thus their precise form and function remains unclear. These features were filled by deposits (G125 and G127 respectively) comprised of light grey brown sandy silt with moderate stone inclusions. These deposits contained a small assemblage of pre-"Belgic" pottery sherds. Deposit G125 contained a fragment of hearth bottom probably associated with iron smithing.

PHASE 3: ENCLOSED, PRE-"BELGIC" IRON AGE SETTLEMENT (Fig 5)

During this phase settlement was concentrated within a ditched enclosure in the same area as the

earlier farmstead L7 (Phase 2). Several other enclosures were constructed to the SW of the main enclosure, some containing occasional pits, but limited structural evidence. It is likely that the majority functioned as cattle corrals. The enclosure immediately S of the settlement enclosure may have had a different function, given its location and the content of some of its ditches. No direct stratigraphic evidence was recorded to associate the settlement and non-settlement enclosures although their form and layout strongly suggest that they are contemporary.

Enclosed farmstead L19

A ditch defining an area 40m in length and 31m wide (a total area of 1,034m²) enclosed this farmstead. The enclosure was sub-circular in plan, orientated SW to NE.

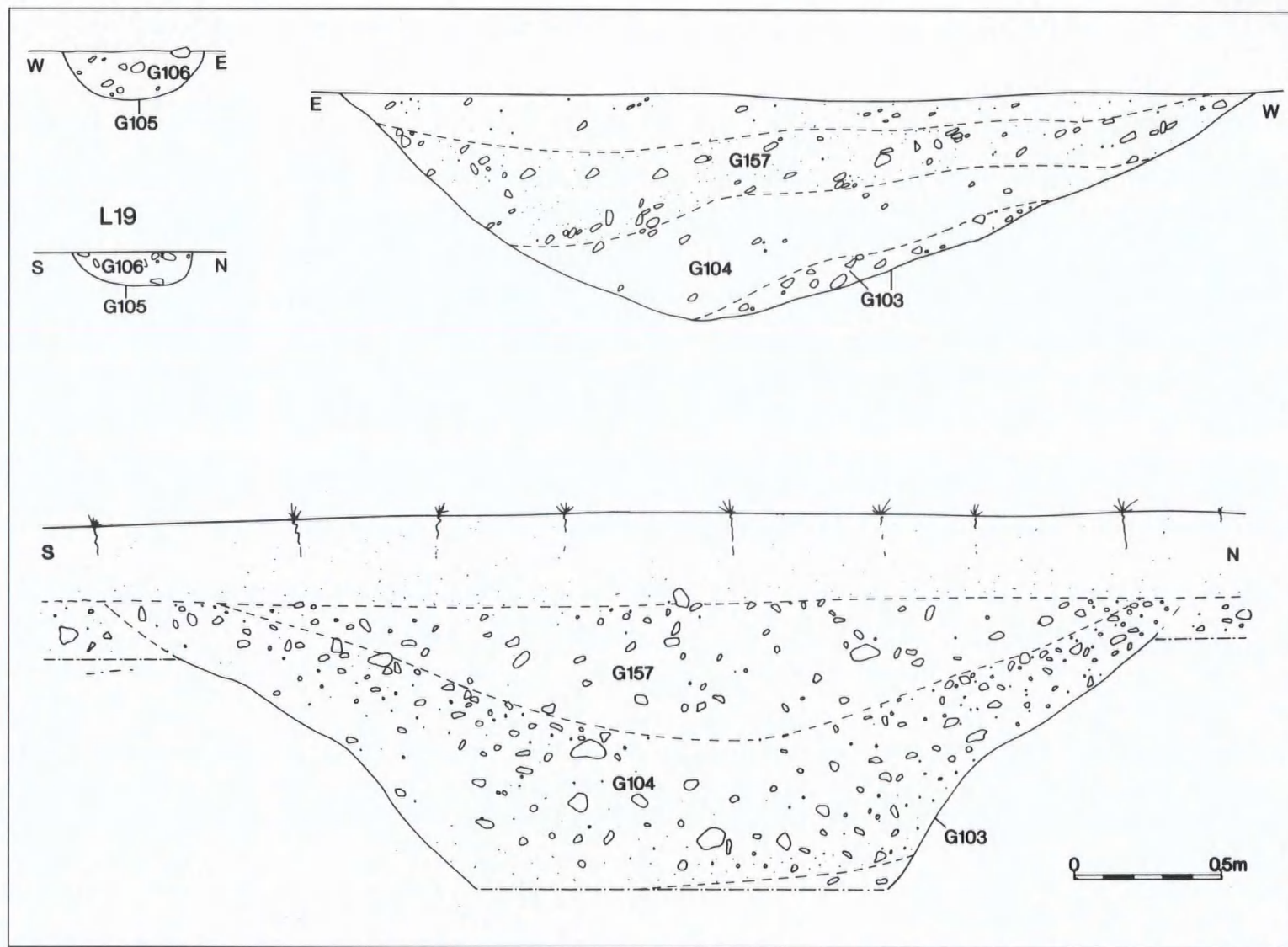


Figure 6 Phase 3: pre-“Belgic” Iron Age enclosed settlement, sections.
 Drip gullies: G105 SS5/20 and SS5/21. Settlement enclosure L19 ditches: SS2/4, SS2/10, SS5/11

The geophysical survey identified four gaps in the ditch that could represent entranceways. These included two entrances situated to the SE, one to the W (where the ditch was poorly defined) and one off centre to the NE (where the ditch may have been confused by a more recent and straighter field boundary). The enclosure contained at least two roundhouses (one centrally located), an area of postholes and small pits and occasional isolated postholes.

Enclosure ditch G103, G900, G920/G921

The three excavated segments (Fig 6) were consistently 3.80m wide and over 0.8m deep. They had a regular profile with sides sloping gradually at the top and more steeply towards the base. The excavated segments of the W and E sides are very similar in shape and dimensions, both being slightly asymmetrical and 0.8m deep. The ditch segment investigated on the S side is symmetrical in profile and was over 1m deep. This segment was located 4m from one of the possible entranceways, which may account for its different form.

The enclosure ditch was filled by a sequence of deposits (G104), which were generally consistent within each of the segments. The lower deposits comprised mid grey sandy silt with moderate stone inclusions. Only these deposits contained pottery sherds, all pre-"Belgic" in date. Possibly significantly the majority of these sherds came from the segment located close to an entranceway. The upper deposits comprised mid orange grey sandy loam with frequent stone inclusions. No pottery was recovered from these deposits. The nature of the filling deposits did not indicate whether an associated bank was located on the inside or outside of the ditch.

Roundhouse G109 and associated features

This roundhouse was situated centrally within the enclosure. Its drip gully was exposed for 8m. It was 0.65m wide and 0.4m deep with a bowl-shaped profile and a projected diameter of around 12m.

The drip gully was filled by a yellow brown sandy loam, with frequent inclusions of small stones and one sherd of pre-"Belgic" pottery (G110).

A group of unexcavated sub-circular features (G118 and G128) were located where the drip gully may have been anticipated to the NE. These may represent an entrance structure. These features were filled by deposits (G119 and G129) similar in nature to the fill of the drip gully. These contained pottery sherds of pre-"Belgic" date and animal bone.

Within the interior of the drip gully, a group of shallow postholes/pits/scoops (G122) may be associated with the roundhouse. The pits measured 0.7m to 1.40m in diameter and 0.35-0.45m in depth. They were situated on a tenuous E-W alignment, with a posthole located at its NE end. This measured 0.7m in diameter and 0.4m in depth. An orange brown sandy loam, with frequent inclusions of small stones and large sandstone cobbles (G123) filled these features. The deposit contained a large assemblage of pre-"Belgic" pottery and a small quantity of ferrous slag. The sandstone cobbles may have derived from the floor of the roundhouse.

Roundhouse G105

This roundhouse was located towards the S of the enclosure, and would have been 5m from roundhouse G109. It comprised

a curvilinear gully (Fig 6), over 3.60m in length, 0.5m width and 0.25m deep with a regular bowl-shaped profile. The curvature of the gully would suggest a diameter of no more than 11m. No internal structural features were identified. An apparently isolated posthole was located 0.6m SW of the gully and may be associated.

The drip gully and posthole were filled by a brown loam with frequent small stone inclusions and a small number of pre-"Belgic" pottery sherds (G106).

Ditch G107

An E-W aligned ditch G107 was located between the two roundhouses and may have sub-divided the enclosure. The ditch was 1.3m wide and 0.36m deep with a regular profile and sides sloping at 45 degrees to a flat base. It was not located during the geophysical survey and no other boundaries were located within the enclosure.

The ditch was filled by a reddish brown silty clay with frequent inclusions of small stones (G108). A small quantity of pre-"Belgic" pottery was found within these deposits.

Enclosure L3

Enclosure L3 lay 27m to the SW of the settlement enclosure. The two were joined by elements of a series of inter-linking ditches, forming sub-circular and sub-rectangular enclosures attached to enclosure L3. The latter was D-shaped in plan and orientated SW to NE. It was 34m long, 23m wide and enclosed an area of 583m² (half the area of the settlement enclosure). The only entrance was located centrally on the SE side. This was 4m wide and was approached by two parallel ditches.

Enclosure ditch G35

The enclosure ditch was between 1.3m and 2m wide and between 0.5 and 1m deep (Fig 7). Its profile changed from a V-shaped section at the N, to a wider and flattish-based profile to the W and S.

Its fill (G36) consisted mainly of naturalised sands and gravel probably formed through erosion and natural silting of the ditch sides.

The primary ditch G35 was redug centrally along most of its length by a shallow ditch G37. No evidence for recutting was located to the SE. The recut was 1.2-2.2m wide and 0.2-0.45m deep and had an irregular bowl-shaped profile.

The recut was filled by a mid brown silty sand with moderate quantities of small stones (G38). A relatively large assemblage of pre-"Belgic" pottery was recovered from this deposit.

Internal features G98, G130, G133

Four isolated features were located within the enclosure. Situated adjacent to the SW arm was a large sub-oval shaped pit G98. This was 3.0m by 3.6m in plan and 1.20m in depth with a V-shaped profile (Fig 12). It was filled by a dark grey-brown silty clay with moderate quantities of stones (G99), the lower deposits exhibiting signs of waterlogging. This contained relatively large quantities of pre-"Belgic" pottery but no other artefacts. A soil sample (6) from one of these deposits contained glumes of spelt wheat, bracken and various weed seeds. It is likely this feature acted as a source of water and was later reused as a rubbish pit.

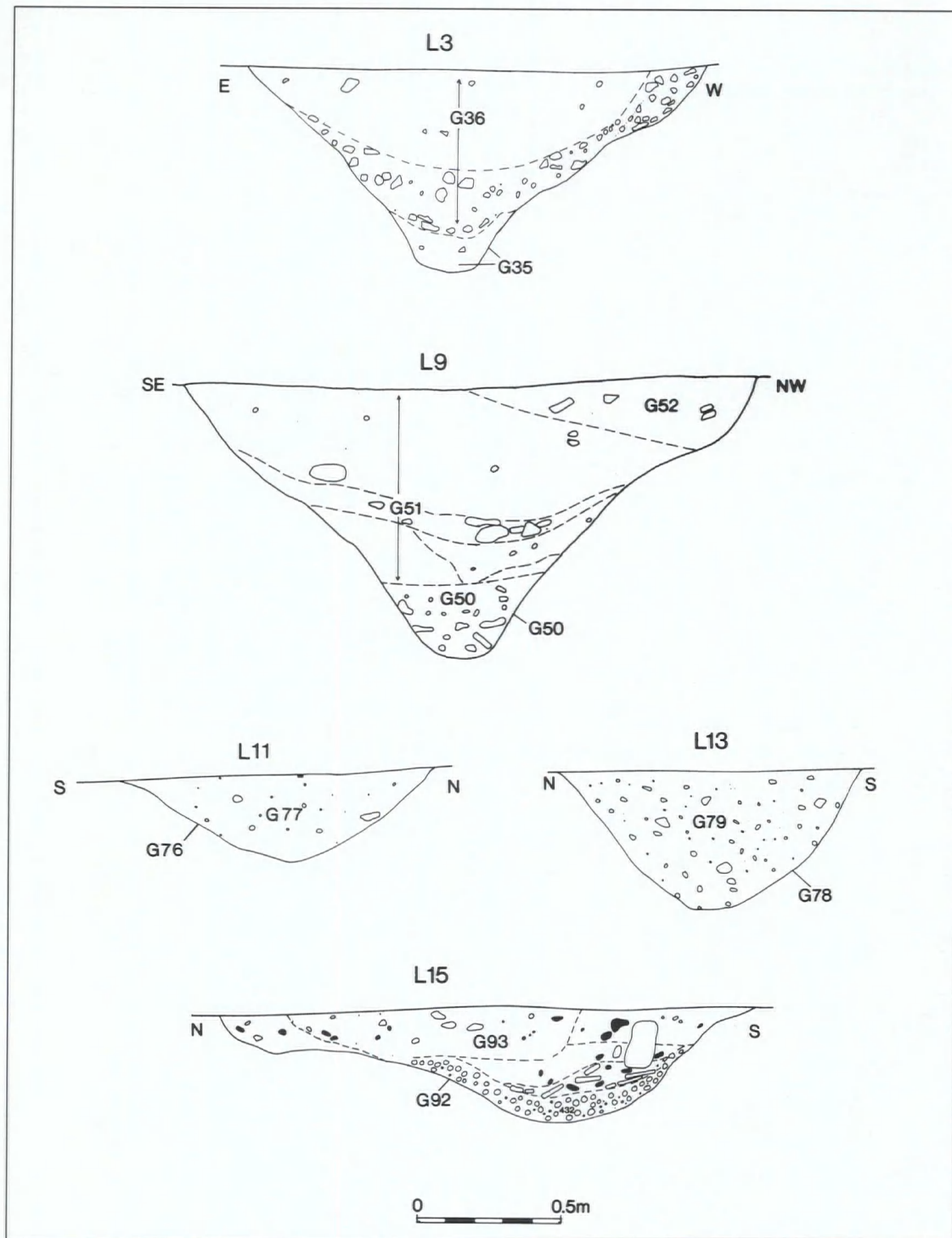


Figure 7 Phase 3: pre-“Belgic” Iron Age enclosed settlement, sections.
 Enclosure ditches: L3 SS47/89, L9 SS16/70, L11 SS53/97, L13 SS43/104, L15 SS43/61

A small gully G133 was located 4m N of pit G98 on an E to W alignment. It was 5m long, 0.85m wide and 0.2m deep. Its relationship with the enclosure ditch was unclear, although it could have functioned as a drain feeding into the larger ditch. It was filled by a red-brown sandy silt with frequent inclusions of small stones (G134).

A posthole and possible pit (G130) were located in the northern area of the enclosure. The posthole was sub-circular in plan with a diameter of 0.5m and depth of 0.23m. The pit was oval in plan, 2m by 1.4m and 0.38m deep. These features were filled by a similar orange brown silty sand with frequent small stones and occasional larger stones (G131). These deposits contained a moderate quantity of pre-"Belgic" pottery. The detection of these small features suggests that their general absence in this enclosure is genuine rather than a result of plough damage.

Enclosure L9

Enclosure L9 was attached to the S of enclosure L3. It was sub-rectangular in plan and measured 20m by 18m, enclosing an area of 583m². No entranceway was located. It is possible the main entrance into the enclosure was located just outside the limit of excavation to the W or that an entrance into enclosure L3 was destroyed by the Phase 4 pond G58. The enclosure contained a group of inter-cutting pits and one isolated pit.

Enclosure ditches G43, G50, G54

These three ditches bounded the enclosure NW, SE and S (respectively). They varied in character and did not form a continuous length. The enclosure ditch of L3 formed the NE side.

Ditch G43 was orientated SW to NE, but curved to the S at its W end. It was exposed over a length of 28m with a consistent depth of 0.8m. The width varied between 1.6m (towards the S) and 2m (at the N). It had a steep sided profile with a slight step in both sides and a flattish base. The ditch was filled by a generally grey brown silty sand with moderate quantities of small stones and a small quantity of pre-"Belgic" pottery (G44).

Ditch G43 was recut by G45, truncating the upper fills of the original ditch. The recut varied between 1.2 and 1.8m in width and between 0.4 and 0.6m in depth. It had a V-shaped profile towards the S and widened to a bowl-shaped profile at the N. This ditch was filled by a yellow-grey silty sand with moderate quantities of small stones (G46). The deposits contained pre-"Belgic" pottery and a small amount of Roman pottery, which may be intrusive.

Ditch G50 formed the SE side of the enclosure and was aligned SW to NE. It was 18.3m long, approximately 2.2m wide and 0.9m deep (Fig 7). It had a V-shaped profile with sides changing from a gentle slope at the top to a steep gradient towards the base of the ditch. Its relationship with enclosure L3 ditches to the N was removed by pond G58 (Phase 5). At the S it terminated in a rounded butt-end. The relationship between ditch G50 and G54 suggests G50 may represent a recut completely obliterating the line of an earlier ditch contemporary with G54. It is therefore possible that the W side of the enclosure was open at a later date.

The lower fills (G51 and G52) of ditch G50 appear to represent the intermittent dumping of rubbish, inter-leaved with

naturally derived deposits. These deposits were generally grey brown in colour with occasional inclusions of small stones (some burnt), charcoal flecks, a large quantity of fired clay, a quern stone fragment (RA 2) and animal bone fragments. Both contained pre-"Belgic" pottery with the largest quantity coming from the lowest deposit (Fig 16.18 and 20). A soil sample (9) for charred plant remains produced very little material. The quantity and nature of this material suggest domestic activity in the vicinity, although no structural features were located. The upper fill (G53) comprised a brownish grey sandy silt with moderate inclusions of small stones and only small quantities of pre-"Belgic" pottery (Fig 16.22).

Ditch G54 towards the S was exposed for a length of 8.5m; it was 0.80-1.20m wide and 0.37m deep. The ditch had a regular profile with sides sloping steeply to a wide flattish base. Towards the E it terminated in a wider and deeper pit-like butt-end, possibly indicating the location of an entrance. The ditch was filled by an orange mottled grey sandy clay with moderate quantities of small stones and animal bone (G55). The pottery sherds from this deposit were all pre-"Belgic" in date.

Internal features G64 and G143

A group of intercutting pits G64 was located centrally within enclosure L9. The pits were sub-circular to oval in plan and varied in diameter and depth. They were generally 1.2m by 0.9m in plan and 0.8m deep. The largest was 3m by 2.2m in plan and 0.8m deep. They were filled by natural sand and gravel deposits (G65), which contained large quantities of pre-"Belgic" pottery. One fill contained several large angular blocks of sandstone which may have been deliberately placed. The function of the pits and their association with enclosure L9 is uncertain, although their central position within the enclosure and repeated recutting may be significant.

Pit G143 was situated 2m E of the pit group and comprised an oval shaped feature with steeply sloping sides, 0.97m by 0.9m; it was 0.63m deep. It was filled by a mottled grey and orange silty sand with occasional small stones (G144). A relatively large quantity of pre-"Belgic" pottery was recovered from these deposits.

Enclosure L11

Enclosure L11 was located to the SE of enclosure L3. It was sub-rectangular in shape and widened from 7m at the W to 14m at the E. This enclosure continued beyond the limit of excavation to the E. No internal features were located.

Enclosure ditches G74 and G76

The boundaries of the enclosure were formed by the SE arm of enclosure L3, ditch G76 to the N and ditch G74 to the S. Ditch G74 was orientated approximately W to E. It was visible for over 7.6m, being 0.65m wide and 0.18m deep. The Phase 5 pond G58 destroyed its relationship with the enclosure L3 ditch.

Ditch G76 ran SW to NE and measured 12.50m in length, 0.80-1.20m in width and 0.30m in depth (Fig 7), intercepting the enclosure L3 ditch 4m S of its terminal where the relationship was ambiguous. Both ditches had a similar bowl-shaped profile. No entrances were located to provide access to the enclosure and it is presumed this would have existed on the E side, beyond the limit of excavation.

The ditches were respectively filled by G75 and G77, mid brown grey silty sand with occasional inclusions of small

stones. Only a small amount of pre-"Belgic" pottery was recovered from these deposits.

Enclosure L13

Enclosure L13 was similar in location, shape and size to L11. It was located adjacent to enclosure L3 on the opposite side of the entranceway to L11. The enclosure was sub-rectangular in shape, 14m by 12.5m in size and did not contain any features.

Enclosure ditches G78 and G80

The enclosure was formed by the SE arm of enclosure L3, ditch G80 to the N and G78 to the S.

Ditch G78 was aligned W to E and intercepted the N entrance terminal of enclosure L3, indicating it also acted as the N side of a trackway leading to this enclosure. It was visible for over 11m, varying in width from 0.85m (at the W) to 1.3m (towards the E) and was 0.6m deep (Fig 7).

Ditch G80 was orientated W to E with its W end curving slightly towards the SW to intercept the corner of enclosure L3. It was over 11m long, 0.85m wide and 0.55m deep.

Both ditches had a similar profile with sides sloping at 45 degrees to a concave base. No entrances were identified so these are presumed to have been located on the E side beyond the excavation limit.

The ditches were respectively filled by G79 and G81, mid grey silty sand with frequent quantities of small stones. These deposits contained a moderate quantity of pre-"Belgic" pottery.

Enclosure L15

Enclosure L15 was only partially exposed within the excavated area. The S boundary was also the N boundary of L13. The arrangement of ditches G92 and G925 would suggest they enclosed an irregular shaped area. No internal features were identified.

Enclosure ditch G92/G925

Ditch G92 was an irregular L-shape in plan, 18m long, 1.10-1.35m wide and 0.20-0.40m deep (Fig 7). The ditch was continuous but had two distinct alignments. The longer ran SW to NE (on the same alignment as the E side of L3 and L9) before curving sharply to a W to E orientation. It had an irregular profile with steep sides merging into an irregular concave base. There was a gap of 3m between the S terminal of the ditch and the N side of L13 forming an entrance. A terminal also existed to the N, approximately 3m from the limit of excavation.

The ditch appears to have been deliberately filled with brownish grey gravel deposits (G93) with moderate quantities of small stones, a very large assemblage of pre-"Belgic" pottery (Fig 15.8-13), moderate quantities of fired clay and part of a reaping hook (RA 6). A soil sample (7) taken for charred plant remains produced a few grains of wheat and grass seeds.

The alignment of ditch G92 was continued by geophysical anomaly G925. This appears to have been parallel to the settlement enclosure ditch G920.

Enclosure L17

L17 was located immediately S of the settlement enclosure L19 and adjacent to enclosure L15,

sharing their boundary ditches. It was of an irregular shape possibly continuing in a narrow area immediately to the S of the settlement enclosure. The boundary ditches were intermittent with consistent gaps of 5m, which would have permitted easy access. The proximity of settlement enclosure L19 to the N may be significant. No internal features were located within the enclosure.

Enclosure ditches G84/86, G88/90

These ditches were at right angles to each other, forming the NW and SW sides of the enclosure. Ditch G86 was orientated SW to NE. It was 4.6m long, 0.90m wide and 0.50m deep, with rounded termini at both ends. It had a steep sided profile with a flattish to concave base. Evidence for an earlier ditch G84 was only located at the SW terminus.

The original ditch G84 was filled by a grey brown silty sand with occasional small stones, charcoal flecks and large quantities of pre-"Belgic" pottery (G85).

The recut ditch G86 was backfilled with a deposit (G87) of mid brown clayey silt and frequent closely packed sandstone cobbles, overlain by an orange gravel deposit. These deposits contained a very large assemblage of pre-"Belgic" pottery (Fig 14.1-7).

Ditch G90 was separated from G86 by a gap of 5.0m. It was orientated NW to SE and was 6m in length, 1.0m wide and 0.34m deep with slightly squared termini. It had a regular profile, with sides sloping at 40 degrees to a concave base. Evidence for an earlier ditch G88 was only located at the W terminus, where the recut did not completely truncate it.

The original ditch G88 was filled by a grey brown sandy silt with frequent small stones and occasional large pebbles (G89). This deposit contained a moderate quantity of pre-"Belgic" pottery. The recut ditch G90 was filled (G91) by a mid brown and orange silty gravel deposits containing a moderate quantity of pre-"Belgic" pottery and a complete hearth bottom (probably derived from iron smithing).

Open Area L39

This area was located N of the D-shaped enclosure L3 and W of the settlement enclosure L19. The limited area visible during the excavation makes it uncertain if this area represents another enclosure. The two identified features could either represent small enclosure ditches or isolated features.

Ditch G39

Ditch G39 was located to the NW of enclosure L3. It lay on a NW-SE alignment and measured 6m in length, extending beyond the limit of excavation in the W, 0.90m in width and 0.40m in depth. Its SE terminus truncated the primary ditch G35 of enclosure L3. It was filled by a mid orange brown sandy silt with frequent small stones (G40).

Ditch G147

Ditch G147 was aligned N to S and was visible over a length of 4m. It was 1.60m wide and 0.43m deep with gradually sloping sides becoming steeper to the S, and a concave base. It may represent a boundary ditch linking the N ditch of settlement enclosure L19 and the N ditch of enclosure L3. The ditch was

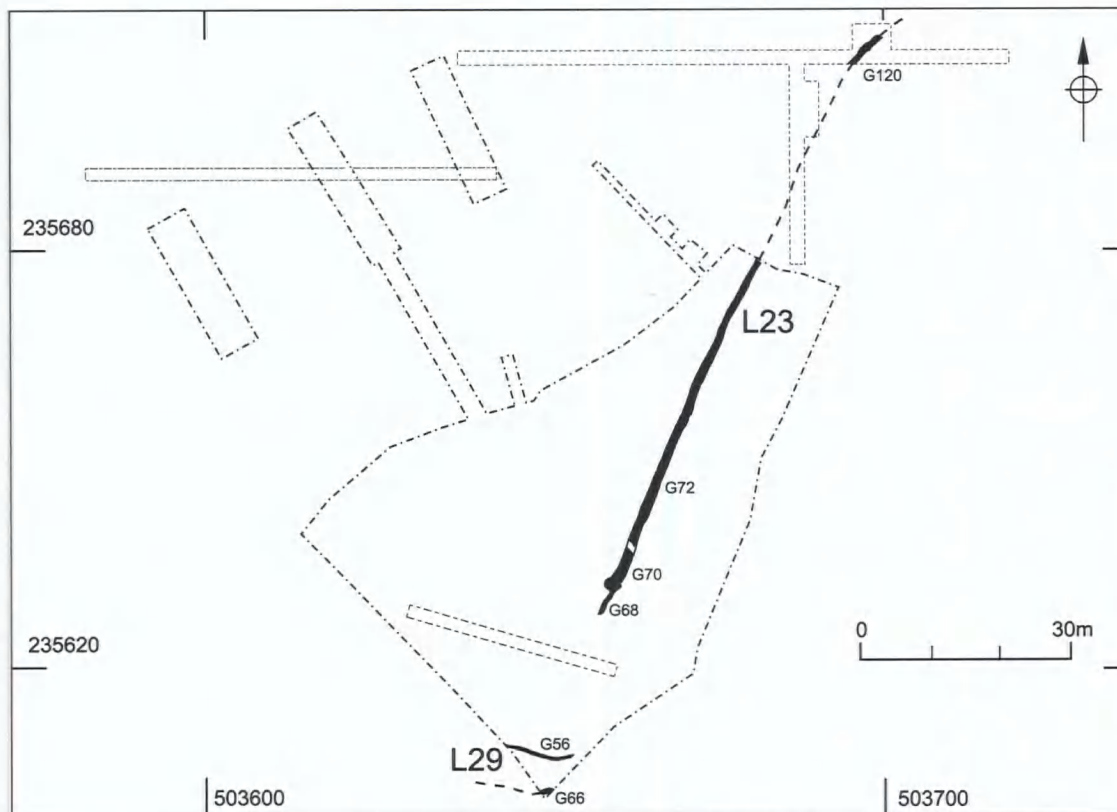


Figure 8 Phase 4: pre-"Belgic" Iron Age field system, all features plan

filled by a reddish grey brown sandy silt with moderate quantities of small stones (G148).

PHASE 4: PRE-"BELGIC" IRON AGE FIELD SYSTEM (Fig 8)

This phase seems to represent a shift in settlement beyond the limits of the excavated area. The Phase 3 enclosures had largely silted up, but may have still been visible. Activity recorded in the study area was restricted to a boundary ditch and two small curvilinear features.

Fields L23

Two probable fields were divided by a boundary ditch and bounded to the W by a trackway L29.

Boundary ditch (G68, G70 and G72)

Ditch G72 was aligned NE to SW, on a similar alignment to a number of the ditches of the Phase 3 enclosures. The ditch was visible for 52m within the main excavation area and, if ditch G120 represents its continuation, may have truncated the Phase 3 settlement enclosure L19.

Ditch G72 was generally 1.20m wide narrowing to 0.80m towards the N and 0.36m deep decreasing in depth to 0.12m at the N. The ditch had a regular profile with steeply sloping sides and a flattish base. At the terminal the ditch turned slightly westwards where it was 1.67m wide and 0.52m deep.

It was filled by a brown grey silty clay with frequent small stones and small quantities of fired clay (G73). At the terminal this deposit produced a very large quantity of pre-"Belgic" pottery (Fig 16.14-17) and one intrusive Roman sherd.

The continuation of this ditch may be represented by G120 located during the evaluation. This had gently sloping sides with a flat base. It was 1m wide and 0.35m deep. It was filled by a deposit G121 similar in nature to the fill of the rest of the ditch and also containing pre-"Belgic" pottery.

Evidence for the original ditch G70 only survived at the S terminal. Further N it was completely truncated by ditch G72. This ditch was filled by a mid grey brown sandy silt with frequent small stones (G71).

The alignment of ditch G70/G72 was continued from its major terminal by a small gully G68. The relationship with the original ditch G70 suggests the gully was earlier and may represent an earlier boundary which had originally continued further N. It was visible for 5m before being truncated by the large Phase 5 pond G58. The gully was 0.45m wide and 0.25m in depth with a bowl-shaped profile. The gully was filled by an

orange mottled grey silty sand with frequent small stones (G69).

Trackway L29

Two parallel gullies probably represent the side gullies associated with a trackway. The gullies were similar in nature and approximately 5m apart. This trackway was perpendicular to ditch G72 indicating that both are part of the same field system.

Gullies G56 and G66

Gully G56 was orientated W to E. It was exposed for a length of 9m and was 0.35-0.45m wide and 0.35m deep. It had steeply sloping sides and a flattish base. It was filled by a mid grey sandy silt with occasional small stones, infrequent charcoal flecks and a small quantity of pre-"Belgic" pottery (G57).

The southern trackside boundary comprised two small inter-cutting curvilinear gullies G66 on a similar alignment to G56. They extended beyond the limit of excavation at both ends, and were exposed for a length of only 1.70m. Both gullies were approximately 0.26m wide and 0.13m deep with a shallow bowl-shaped profile. They were filled by a grey brown sandy loam with moderate quantities of small stones (G67). A small quantity of pre-"Belgic" pottery was recovered from this deposit.

PHASE 5: ROMAN FIELD SYSTEM AND TRACKWAY (Fig 9)

A system of regular fields or enclosures incorporating a trackway was established on a different orientation to the previous phase. At least one of the enclosures was utilised for various kinds of activity including both quarrying and settlement. Pottery evidence suggests activity can be assigned both to the 2nd centuries AD and to the 4th (see Roman pottery section).

Trackway L27

Trackway L27 was defined by two parallel ditches, approximately 7m apart and aligned SW to NE. The trackway was recorded for a distance of 50m within the study area.

Trackside ditches G1/3 and G5

Both trackside ditches G3 and G5 measured 1.50-2.0m wide and 0.50-0.60m deep. They had an irregular profile with sides varying between steep and gradual, and a concave base. Only the N ditch showed evidence of recutting. The original N ditch G1 was shallower and narrower, being 0.80-1.20m wide and 0.32m deep. It was considerably truncated by its re-cut G3 which was similar in size and profile, but located slightly to the N of the original alignment.

Brown grey sandy silts with occasional inclusions of small stones (G2, G4 and G6) filled the ditches. There was no evidence for a bank in the silting pattern of the fills. The only artefacts recovered from the ditch fills were a fragment of a Saxon loomweight (RA 13) and a number of fragments of animal bone.

Enclosure L25

This enclosure was only partially examined by excavation. It was bounded by trackway L27 to the NW, ditch G9 to the NE and ditch G13 to the SE. The enclosure was rectangular in shape, approximately 40m NW to SE and over 35m in length. It appeared to have entrances for access to both the trackway and the enclosure L16 to the SE. Limited evidence for activity was identified within the enclosure.

Ditch G9

Ditch G9 was aligned NW to SE, perpendicular to the trackway, and extended for over 80m, continuing beyond the limit of the excavation. The ditch was 1.10m wide and 0.80-0.25m deep, increasing in depth to the NW. Ditch G9 may represent a later recutting of earlier boundaries G23 and G25. The later ditch G9 was filled by a mid grey brown sandy silt with moderate inclusions of small stones (G10).

Ditch G13

Ditch G13 was orientated SW to NE, perpendicular to ditch G9. It was exposed for a length of 19m and was 1.20m wide and 0.40m deep. It had a steeply sided profile with a concave base. The ditch terminated in a rounded butt-end towards the E. Prior to the terminal a 4m length of the ditch widened to 1.80m. The main part of the ditch was filled a reddish brown silty sand with moderate inclusions of small stones (G14). Deposits (G16) from the terminus contained an assemblage of Roman pottery (Fig 17.26-31), which may have been deliberately dumped.

Ditch G41/G155

Ditch G41 continued the approximate alignment of ditch G13 after an entrance gap of 4m. The ditch extended for 4.5m; it was 0.4m wide and 0.3m deep. The terminal at the W was narrow and rounded in contrast to the opposing terminal of G13. The relationship with ditch G9 was not observed. The ditch was filled by a reddish brown silty sand with frequent inclusions of small stones (G42). The ditch fills contained pre-"Belgic" pottery only.

At the entrance a further length of ditch G155 was situated at right angles to ditch G41 and appears to represent part of the entranceway. The profile, dimensions and fill of this ditch were similar to those of the adjoining ditch. The fill (G157) contained a large quantity of Roman pottery.

Internal features G17

Only a small area of the interior of the enclosure was examined and those features located were situated close to the entrance. Two small postholes appeared to truncate the N edge of ditch G13. Two postholes and a pit were located in the entranceway and give the appearance of a 3 post structure although their form is extremely variable. These features were filled by orange brown sandy loams with moderate inclusions of small stones and Roman pottery (G18).

Enclosure L16

This enclosure was situated adjacent to, and to the SE of L25. Boundaries were only located to the NW (G13) and the NE (G9). The enclosure would have

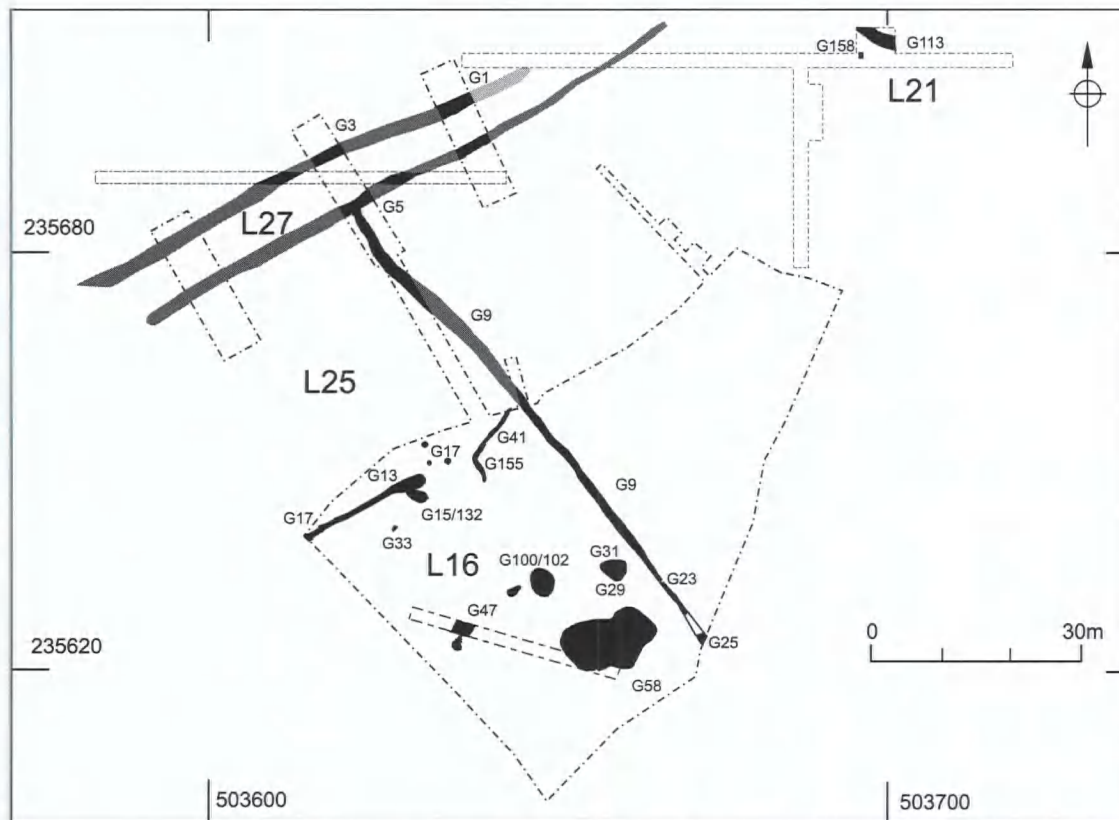


Figure 9 Phase 5: Roman field system and trackway, all features plan

been rectangular in shape, over 35m SW to NE and over 50m NW to SE. This enclosure contained isolated gravel surfaces, isolated postholes, a number of pits and water holes and a large pond or quarry. The dating evidence suggests activity commenced in the early 2nd century AD and may have continued into the 4th century AD.

Ditches G9, G23 and G25

Evidence for the earlier ditches of the boundary G9 alignment were only located adjacent to enclosure L16. It is possible the ditch-line was only recut to the N at a later date to provide access from enclosure L16 into the field to the E. The SE terminus of G9 truncated ditch G23 which was situated on the same alignment and visible for 3m. This was 0.54m wide and 0.17m deep, with a similar profile to ditch G9. Ditch G23 was filled by a grey brown silty sand with occasional small and medium stones (G24).

The SE terminus of ditch G23 truncated ditch G25 that was also situated on the same alignment. This ditch was visible for 8m, within which it widened from 0.56m at the NW to 1.20m at the SE. It was 0.22m deep with a similar profile to ditches G9 and G23. The ditch was filled by a brown grey silty sand with occasional inclusions of small stones (G26). One of the fills within these deposits contained a high percentage of

charred material, including wheat grains and glumes (soil sample 17).

Pond G58

Situated approximately 2m SW of boundary ditch G9 was a large irregular-shaped pond or quarry pit. This feature was 13m long, 9m wide and 1.20m deep (Fig 10). It had gently sloping sides and a wide flattish base. The lower deposits appeared to have derived from natural silting, weathering of the sides and also showed some evidence for the formation of a peat. The feature had clearly been dug through pure clay bands within the gravel, but whether this was by coincidence or design is unclear. It is possible the feature was originally dug to extract clay and gravel but was later used as a water hole. A soil sample (20) from the primary deposits contained glumes of spelt wheat. Moderate quantities of animal bone were also recovered from these deposits.

The pond backfilled over time with a variety of deposits (G59) ranging from blue grey sandy silty clay to grey brown silty clay with moderate quantities of stones and infrequent animal bone. A fragment of a saddle quern is likely to be residual from earlier phases. Moderate quantities of Roman pottery were recovered from this feature (Fig 18.41 and 43). A soil sample (12) from these deposits contained badly preserved seeds of marsh/water edge plants. Other samples from this deposit did not contain waterlogged remains.

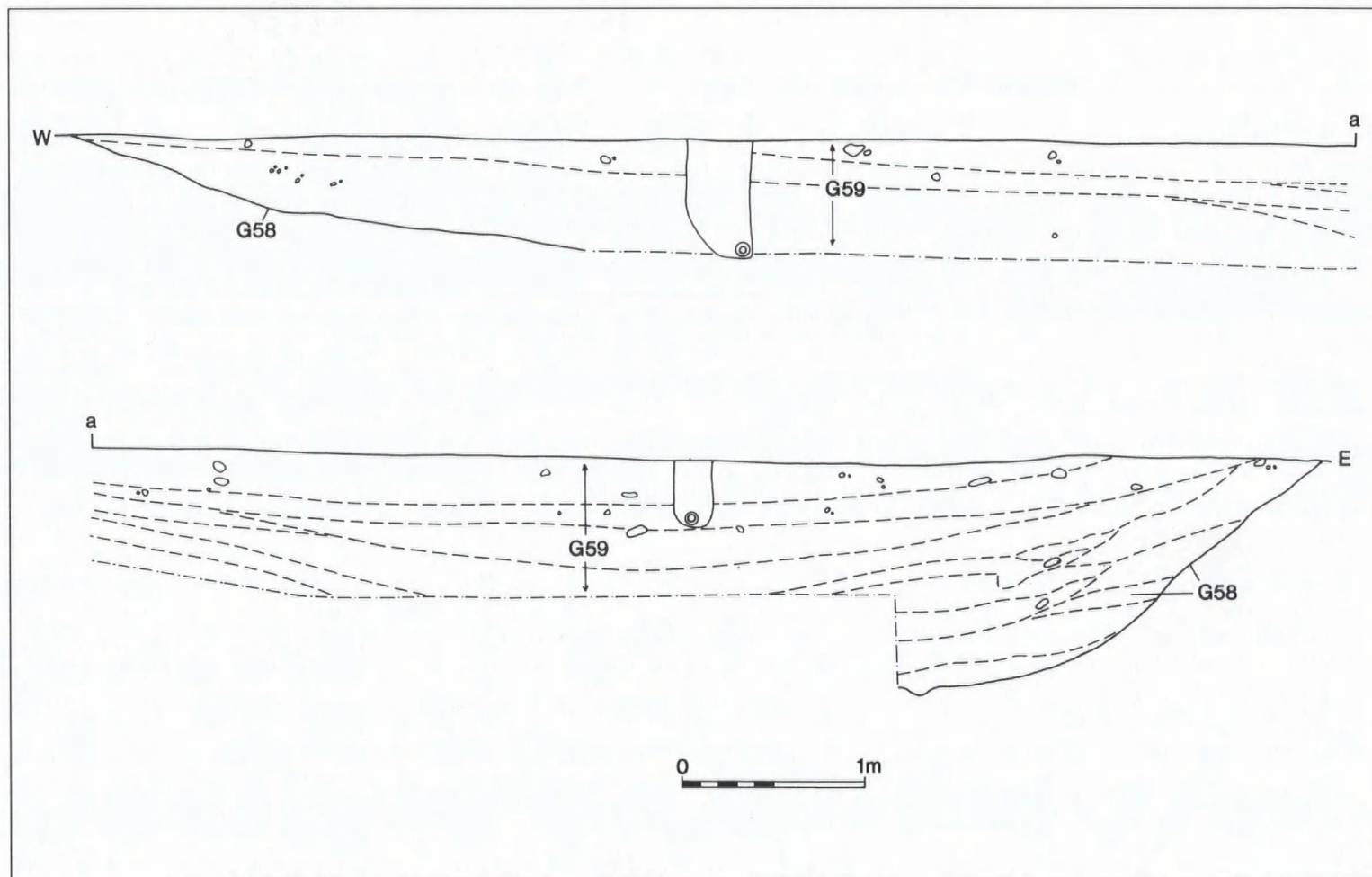


Figure 10 Phase 5: Roman field system and trackway, sections. Pond G58 SS55/91

Well/pit G29 and G31

To W of the terminus of ditch G9, pit G31 was dug into the backfill (G30) of an earlier well G29 (Fig 12). The well was sub-oval in plan, 3.70m by 3.06m wide at the top and 1.80m by 1.60m wide at the base and was 1.62m deep. It had steeply sloping sides to the E and a stepped profile to the W with a concave base. The well was filled by two distinct deposits (G30). The lower deposit comprised a dark grey waterlogged clay silt with frequent small and occasional large stones. A moderate quantity of Roman pottery sherds and infrequent animal bone was recovered from this deposit. The upper deposit comprised mid brown silty sand with frequent small stones.

Pit G31 was sub-circular in plan, measuring 2m in diameter and 0.70m deep (surprisingly shallow considering it was dug into soft deposits filling the earlier well). It was filled by a dark brownish-black silt with occasional medium sized stones and infrequent fragments of animal bone (G32). This deposit contained a moderate quantity of Roman pottery (Fig 18.36-40), tile including imbrex and tegula and five nails.

Pits G100/102

Pit G102 situated to the NW of pond G58 appeared to have been dug into the fill of an earlier pit G100. The original pit was oval in shape, measuring 3.4m by 4m. It was 0.45m deep. Its sides sloped gradually to a flattish base. The pit was filled by a mainly grey brown sandy clay with moderate quantities of small stones and moderate quantities of Iron Age and Roman pottery (G101).

The recut G102 was oval in plan and measured 2.80m by 3.10m; it was 0.40m deep. It was filled by a black silty loam with frequent inclusions of wood charcoal, charred wheat grains (soil sample 5) and burnt pebbles and occasional inclusions of fired clay and tile. The nature of this deposit suggests it may have been deliberately backfilled with material derived from a hearth.

Cobbled surfaces G47

Three isolated areas of cobbling G47 were located to the W of pond G58. At the W the surface was irregular in plan and measured 1.40m by 0.40-1.20m. Immediately to the N lay a sub-rounded area of cobbling with a diameter of 1.1m. Both comprised rounded flint cobbles, 70mm in diameter, set in a firm dark greyish-brown sandy silt matrix. Deposits both over and between the cobbles may represent deposits built up during use of the surfaces. They contained a moderate amount of Roman pottery and a small quantity of animal bone.

A further cobble surface was situated 9m to the NE, but was slightly different in nature. It comprised rounded flint pebbles in a loose reddish brown silty sand matrix. The surface was irregular in plan, being 2m by 1m, narrowing to the E and was less substantial in nature than the other surfaces.

These surfaces probably only survived because they had slumped into the upper deposits of the Phase 3 ditch G45. It is uncertain if they were internal or external surfaces.

Hearth G33

A small hearth G33 was situated 2m S of ditch G13. It was sub-circular in plan, with a diameter of 0.80m. The natural gravel showed a reddish discolouration indicating *in situ* burning. The hearth was backfilled by two layers of dark reddish brown silt with frequent inclusions of charcoal (soil sample 4), fired clay and burnt stones (G34). A small quantity of Iron Age and

Roman pottery sherds (unburnt) was found within this material, along with animal bone fragments (unburnt). These may represent the dumping of a mixture of raked out material and domestic refuse after the hearth had been abandoned.

Pits G15 and G132

Two inter-cutting pits were situated immediately to the S of boundary G13 in the vicinity of the entrance gap, approximately 5m NW of hearth G33.

The earlier pit G15 measured 3.10m by 1.20m and was 0.40m deep. It was ovoid in plan and had a wide shallow profile with a steep side to the N and a more gradual sloping side to the S. The pit was filled by two deposits of orange brown sandy silt with occasional inclusions of small stones. The primary deposit contained a large assemblage of Roman pottery (Fig 17.32, 34 and Fig 18.35). This pit was located adjacent to the terminus of ditch G13, which also contained a large assemblage of pottery.

The later pit G132 was smaller at 0.9m by 0.6m and 0.3m deep. It had an asymmetrical profile with steep sides and a flat base. A deposit of dark brown-black sandy silt, with moderate inclusions of charcoal and burnt stones filled the pit. A moderate quantity of Roman pottery was recovered from this deposit. The burnt filling deposits may have been derived from the hearth G33, indicating both features were contemporary.

Open Area L21

Only limited activity was identified to the NE of ditch G9. A NW to SE aligned ditch may represent the E boundary of a field. Adjacent to the ditch was an area of stones, which may indicate limited settlement activity.

Ditch G113

Ditch G113 lay on a NW to SE alignment, possibly parallel to ditch G9. It was visible for a length of 5.0m and was 2.0m wide and 0.50m deep with gradually sloping sides and a concave base. The ditch may have been deliberately backfilled by a dark yellowish brown sandy silt, with frequent small and large stones and frequent charcoal flecks (G114). A small quantity of Roman pottery was recovered from this deposit. The base of the ditch also contained two blocks of sandstone measuring 0.25m by 0.15m, similar to, and probably derive from the possible structure G158 to the W.

Sandstone blocks G158

Approximately 4m to the SW of ditch G113 a tenuous NW to SE alignment of sandstone blocks was located. It was visible for a length of 2.20m and was 0.50m wide and 0.30m deep. The sandstone blocks measured 0.08m by 0.25m and 0.12m by 0.15m. They were situated within a shallow gully, which truncated Phase 3 pits and postholes. It was uncertain whether the sandstone blocks were part of an *in situ* structure, or whether they represented displaced elements of a structure situated in the vicinity.

PHASE 6: UNENCLOSED SAXON SETTLEMENT (Fig 11)

The final phase of settlement within the study area was characterised by isolated occupational features including a well, a pit and two small linear boundary ditches.

Open Area L31

Two small, possibly parallel, ditches, a pit and well have been assigned to this landscape.

Boundary Ditches G145 and G7

Two small boundary ditches were situated towards the NW of the study area. Ditch G145 was orientated NW to SE, but was only exposed for a length of 1.5m. It measured 0.80m in width and 0.15m in depth. The ditch had gently sloping sides with a flat irregular base. Its fill (G146) comprised an orange brown sandy silt with frequent inclusions of small stones. A small quantity of Saxon pottery was recovered from this deposit.

Ditch G7 was located parallel and to the SW of ditch G145. It was exposed for a length of 12m and measured 0.6-0.8m in width and 0.22m in depth. It had a very irregular profile. Towards the N the ditch terminated in a rounded butt-end and extended beyond the limit of excavation to the S. It terminated prior to reaching the main area of excavation. The ditch was filled by an orange brown silty sand with moderate inclusions of small stones (G8).

Pit G137

Shallow pit G137 was oval in plan, measuring 1.5m by 3m and 0.3m deep. It had gently sloping sides and a wide flat base. Its fill (G138) comprised a red-brown sandy silt with moderate inclusions of small stones. This deposit contained residual Iron Age pottery and a moderate quantity of ferrous slag.

Well G27

Feature G27 which probably functioned as a well truncated the Phase 5 boundary ditch G25. It was oval in plan measuring 3.7m by 3.0m; it was 1.66m deep. The base was narrower being 0.60m by 0.80m. The well was asymmetrical in profile with a stepped side on the NE, steep sides to the SW and a concave base (Fig 12).

The well was later re-used as a rubbish pit and was filled by a dark brownish black silty sand (G28), which became more organic with depth. The lower deposits contained waterlogged remains of marsh/water edge plants (soil sample 16). Some of these may have been residual from Roman deposits. Three undiagnostic leather fragments (RAs 9, 10 and 12), a residual quern fragment (RA 5) and a fragment of an annular loomweight (RA 11) were recovered from this deposit. The remains of a wooden ladder found within this deposit were not *in situ*, but may have been used in this feature. Pottery sherds included Roman and Saxon sherds (Fig 18.44). After its use as a rubbish pit the well was deliberately backfilled with natural gravel deposits.

PHASE 7: MODERN FEATURES

Several rectangular features G11 were located across the excavation area. These were generally between 2m and 4m in length, 0.75m wide and 0.2-0.4m deep. All the pits had square profiles and

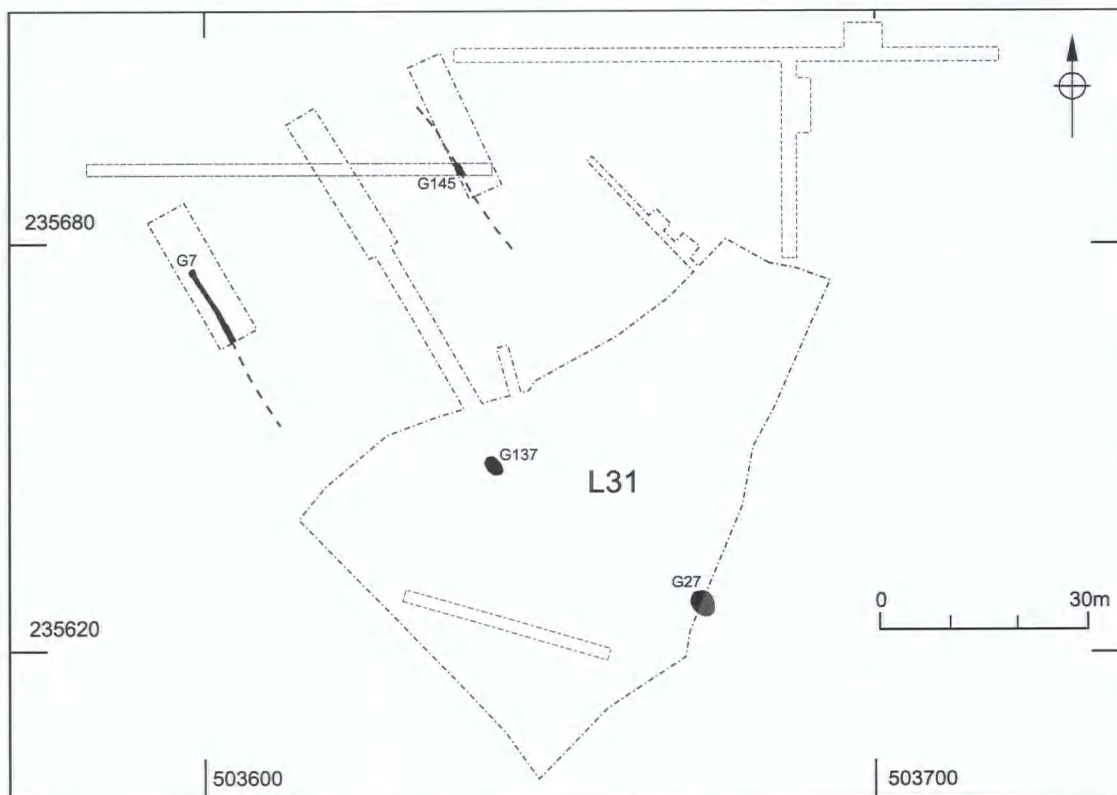


Figure 11 Phase 6: unenclosed Saxon settlement, all features

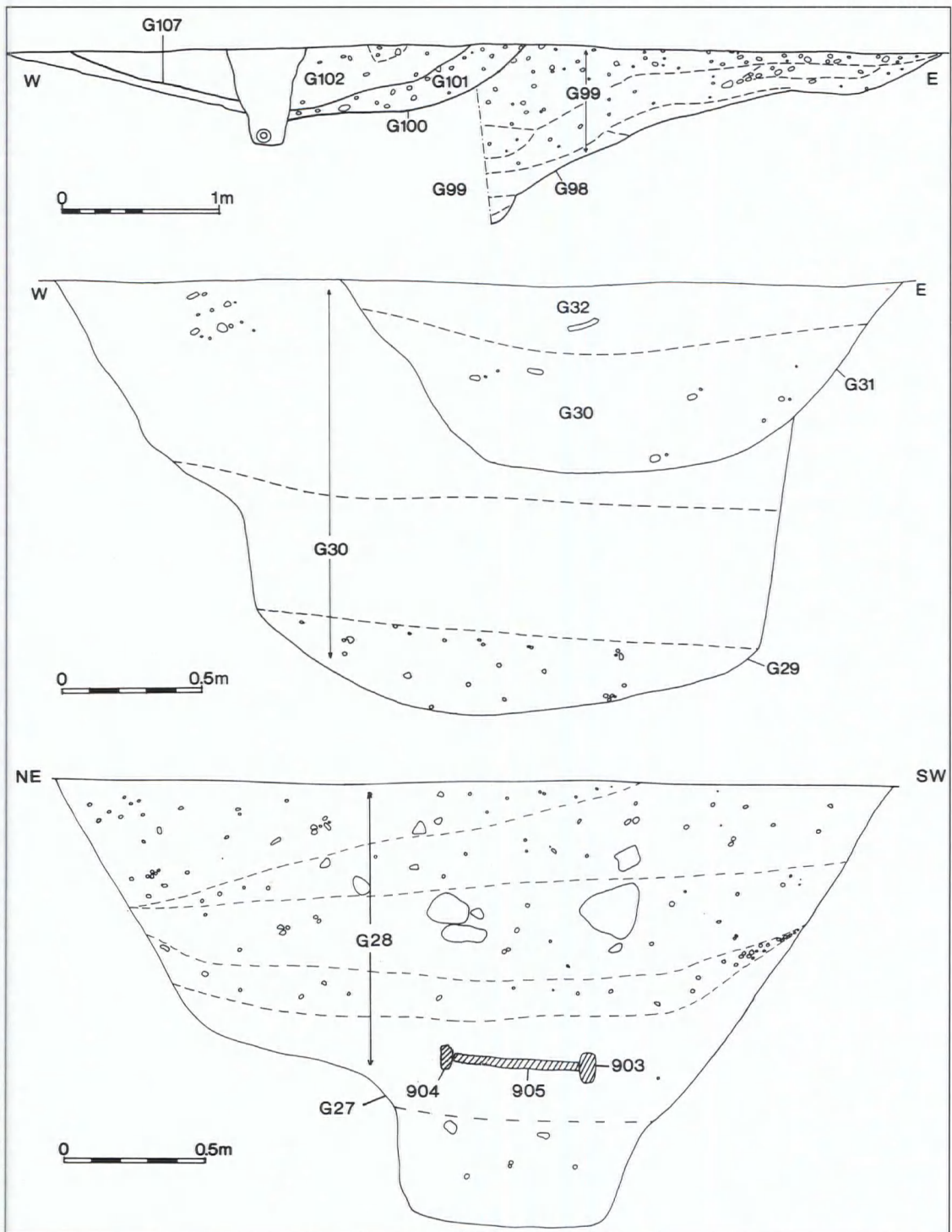


Figure 12 Phases 5 and 6, sections. Phase 5 pits: G100/102 SS47/67, G29/31 SS52/109.
Phase 6 well: G27 SS52/76

appear to have been deliberately backfilled (G12). These may represent test pits for earlier archaeological or other ground investigations.

THE POTTERY

Ed McSloy

INTRODUCTION

The study area produced 3,107 sherds of pottery, representing 2,140 individual vessels, weighing 44.095kg. Of this material 3,094 sherds were hand-collected during the excavation and the remainder sieved from soil samples. Unless otherwise stated, quantitative data in the text is based on the vessel count.

Soil conditions had a damaging effect on most fabric types. Fossil shell inclusions did not survive except in sherds from waterlogged deposits. Otherwise, these fabrics were identified by the presence of plate like voids, visible in section under the microscope. Even Roman sandy fabrics had suffered surface damage, giving sherds an abraded appearance.

The pottery was recorded using the common names and type codes in the Bedfordshire Ceramic Type Series. Quantification (Fig 13) included minimum vessel count, sherd count, and weight. In the case of wheel-made pottery, measurement of the estimated vessel equivalent (EVEs) was also made and this information is included in the site archive. Examination of attributes including extent of abrasion, presence of residues, sooting and wear marks was undertaken to provide an indication of the function of the pottery.

A representative sample of the pottery has been illustrated (Figs 14-18). Standard drawing conventions have been used, with vessels shown at one quarter size, external view on the right and a section and internal view on the left. Hand-made vessels are illustrated with hatched sections and wheel-thrown vessels with solid sections. The pie diagram at the base of each illustration indicates the proportion of the vessel recovered.

TYPE DESCRIPTIONS

The pottery types are described below in numerical order within broad chronological groups. Full fabric descriptions are given only for those types not published previously. Percentages are given for all fabrics constituting over 1% of the total pottery assemblage.

Pre-"Belgic" Iron Age

F01B Fine flint tempered

Fabric: described in Dawson *et al* 1988, 11

Forms: hand-made vessel of indeterminate form.

F03 Grog and sand tempered (2%)

Fabric: first defined in Dawson *et al* (1988, 11) and more fully described by McSloy (1996, 21). Examples from Flitwick also contain sparse glauconite, 0.2-0.4mm.

Forms: hand-made, plain or strap handled ovoid vessels. Decoration includes finger tipping on the rim, scoring and burnishing.

Illustrations: 1-3, 8.

F04 Organic tempered

Fabric: first defined in Dawson *et al* (1988, 11) and more fully described by McSloy (1996, 24).

Forms: hand-made ovoid vessels.

Illustrations: 18.

F17 Grog tempered

Fabric: described by McSloy (1996, 24).

Forms: hand-made vessels of indeterminate form.

F19 Sand and organic tempered (1%)

Fabric: described by McSloy (1996, 24).

Forms: hand-made ovoid vessels, with a single example of fingernail incised decoration on the rim.

Illustrations: 9.

F22 Grog and organic tempered

Fabric: described by McSloy (1996, 24).

Forms: hand-made vessels of indeterminate form.

F28 Fine sand tempered (9%)

Fabric: described by La Niece (1998): this volume. Examples from Flitwick also contain sparse rounded glauconite, 0.2-0.4mm.

Forms: hand-made ovoid and globular vessels with flat or pedestal bases. One vessel (Fig 16.13) is decorated with grooved and dimpled La Tène ornament. This consists of zones on the shoulder, defined by diagonal grooves, each with a line of small circular impressions to each side. Other decorative motifs include finger tipping on the rim, scoring and burnishing.

Illustrations: 13, 19-20

F29 Coarse sand tempered (67%)

Fabric: described by La Niece (1999): this volume. Examples from Flitwick also contain sparse sub-rounded glauconite pellets, 0.2-0.4mm.

Forms: hand-made, plain and strap handled ovoid vessels, and large storage jars. Decoration includes finger tipping on the rim, incised decoration on the rim, both with the fingernail and with a sharp implement such as a knife, scoring and burnishing. Comments: this fabric is the overwhelmingly dominant type in the assemblage from the study area.

Illustrations: 4-7, 10-12, 14-17, 21-24.

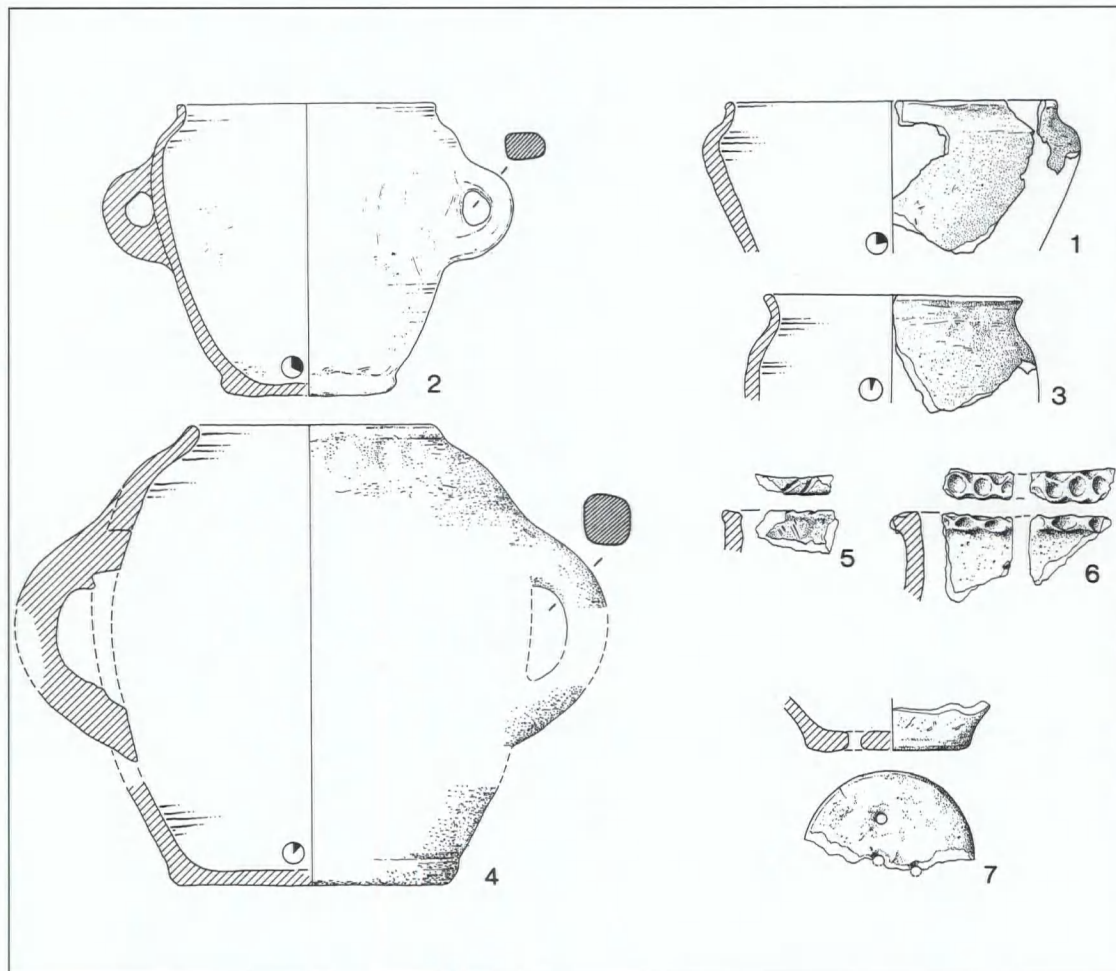
"Belgic" Iron Age

F06 Grog tempered

Fabric: described by Stead and Rigby (1986) and fully discussed by Thompson (1982). Three sub-divisions of this type have been defined, based on the coarseness of the grog inclusions.

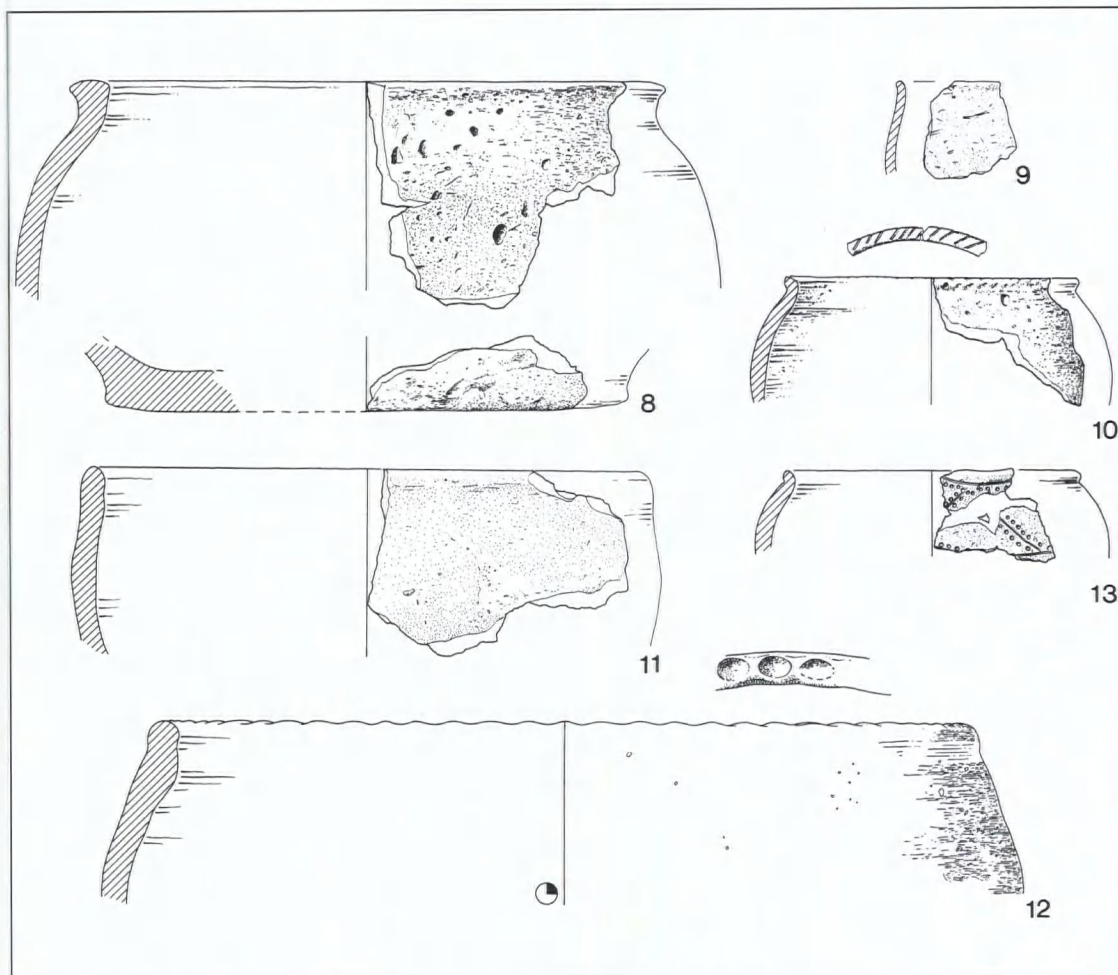
				Pre-"Belgic" Iron Age								"Belgic"			Roman												Saxon								
Phase	Landscape	Group	Description	F01B	F03	F04	F17	F19	F22	F28	F29	F06	F07	F09	R03E	R03A	R03	R18A	R07B	R01A	R06A	R04E	R05A	R08B	R12B	R13	R14	R11D	R12A	R	A08	A16	TOTAL		
7	33		150 topsoil					1	1	12	5																						30		
7	33		140 fill of land drains G139							1										2	1		1	1	3		1	1						11	
7	33		12 fill of test pits G11					1						6																			7		
6B	31	156									1																							1	
6B	31	146	fill of ditch G145																														1		
6B	31	138	fill of pit G137								2																							2	
6B	31	28	fill of well G27																						2		3					1		6	
5B	25	157	fill of ditch G155								3		3							3					2	5	4	1		3				24	
5B	25	42	fill of ditch G41			2						27																						29	
5B	25	18	fill of postholes G17																						4		2				1			7	
5B	25	14	fill of ditch G13																	2		1			2		3						8		
5B	25	16	fill of ditch G13 at terminus										1						27	3				4	9	19							64		
5B	21	114	dump within ditch G113							2																	1							3	
5B	21	115	fill of ditch G113							1														1										2	
5B	16	132	primary fill of pit G132																15	1							2						18		
5B	16	101	fill of pit G100									8					2										1							11	
5B	16	59	fill of pond G58																1	1					7		6							17	
5B	16	34	fill of hearth G33							6								1																7	
5B	16	10	fill of ditch G9									1																						1	
5	21	113	primary fill of ditch G113			1		1	1																									3	
5	16	102	primary fill of pit G102																						3		2					1		6	
5	16	47	gravel surface															1		2					3		4							10	
5	16	31	primary fill of pit G31																1	21					20	7	65	1	1	1				117	
5	16	30	fill of well G29																							3		2						5	
5	16	15	primary fill of pit G15															1		39					5		63							108	
4B	29	67	fill of trackside ditch G66									3																						3	
4B	29	57	fill of trackside ditch G56								5	2																							7
4B	23	121	fill of ditch G120								1																								1
4B	23	73	fill of ditch G72			1				31	366																	1							399
3B	19	123	fill of pits G122			10		9	1	28																					1				49
3B	19	119	fill of pits G118			4				3				1																					8
3B	19	110	fill of roundhouse drip gully G109			1		1		8																									10
3B	19	108	fill of ditch G107							3																									3
3B	19	106	fill of roundhouse gully G105			1				1																									2
3B	19	104	fill of enclosure ditch G103			3				5	1	1																							10
3B	13	81	fill of enclosure ditch G80									5																							5
3B	13	79	fill of enclosure ditch G78									5																							5
3B	11	77	fill of enclosure ditch G76																																1
3B	11	75	fill of enclosure ditch G74									1															1								1
3B	9	144	fill of pit G143								31																								31
3B	9	85	fill of pit G84								2	57																							59
3B	9	55	fill of enclosure ditch G54									5																							5
3B	9	53	tertiary fill within enclosure ditch G50									2																							2
3B	9	52	dump within enclosure ditch G50					1		2	16																								19
3B	9	51	fill of enclosure ditch G50				1		1	25	42														1										70
3B	9	46	fill of enclosure ditch G45							1	7														1	1									10
3B	3	134	fill of ditch G133																		1														1
3B	3	131	fill of pit G130			3		1		1	10																								15
3B	3	99	fill of pit G98								16																								19
3B	3	38	fill of enclosure ditch G37							1	16																								19
3B	3	36	fill of enclosure ditch G35																	2															19
3	17	91	fill of enclosure ditch G90					1		1	35				1											2									37
3	17	89	fill of enclosure ditch G88							4	10																								14
3	17	87	fill of enclosure ditch G86			7				1	324			1																					333
3	17	85	primary fill of enclosure ditch G84							1	2	60																							64
3	15	93	dump within enclosure ditch G82			3		1	5	3	386																								398
3	9	43	primary fill of enclosure ditch G43								1																								1
2B	7	125	fill of pits G124						1	5	3																								9
2B	7	127	fill of pits G126						1																										1
2B	1	61	fill of roundhouse drip gully G60									1																							1
2B	1	20	fill of structure G19									2																							2
			TOTAL	1	36	2	7	20	1	183	1414	5	2	1	1	3	2	1	114	7	1	1	9	71	8	179	3	1	1	6	1	1	2140		

Figure 13 Pottery seriation table (vessel count)



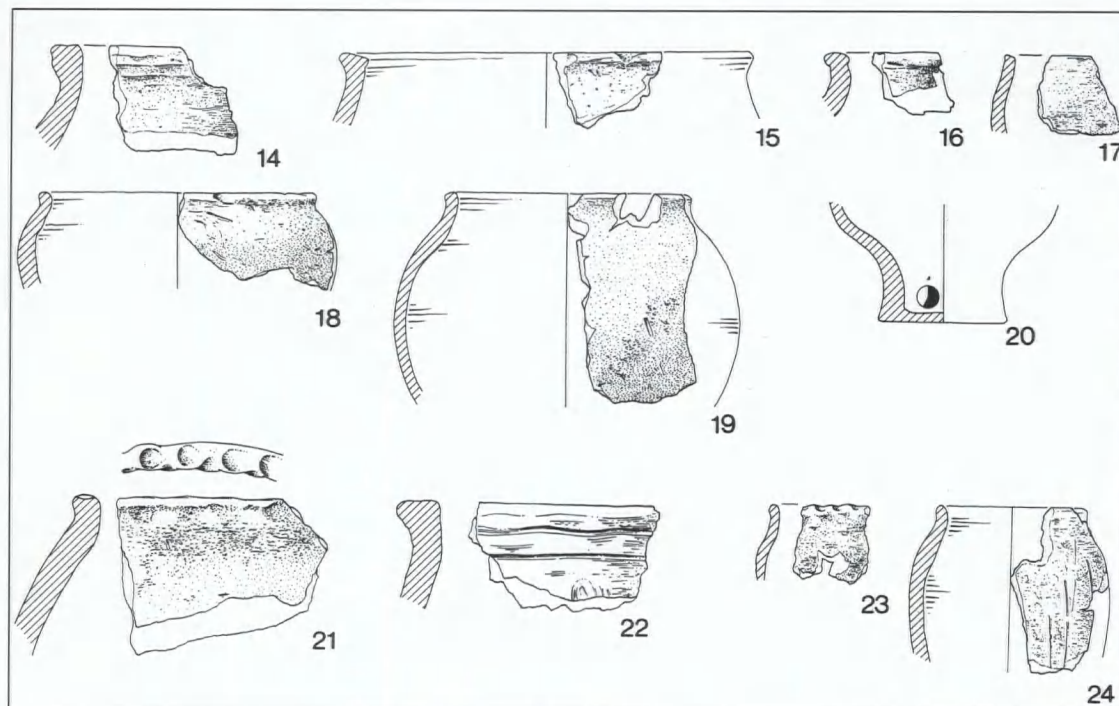
Illustr. no.	Fabric Code	Form	Group	Landscape	Phase
1	F03	Round shouldered jar	G.87	L.17	3
2	F03	Ovoid jar with strap handles	G.87	L.17	3
3	F03	Ovoid jar	G.87	L.17	3
4	F29	Ovoid jar with strap handles	G.87	L.17	3
5	F29	Jar with slashed rim	G.87	L.17	3
6	F29	Large storage jar with fingertip impressed rim	G.87	L.17	3
7	F29	Perforated base	G.87	L.17	3

Figure 14 Nos. 1-7 pre-“Belgic” Iron Age pottery: G87 (1:4)



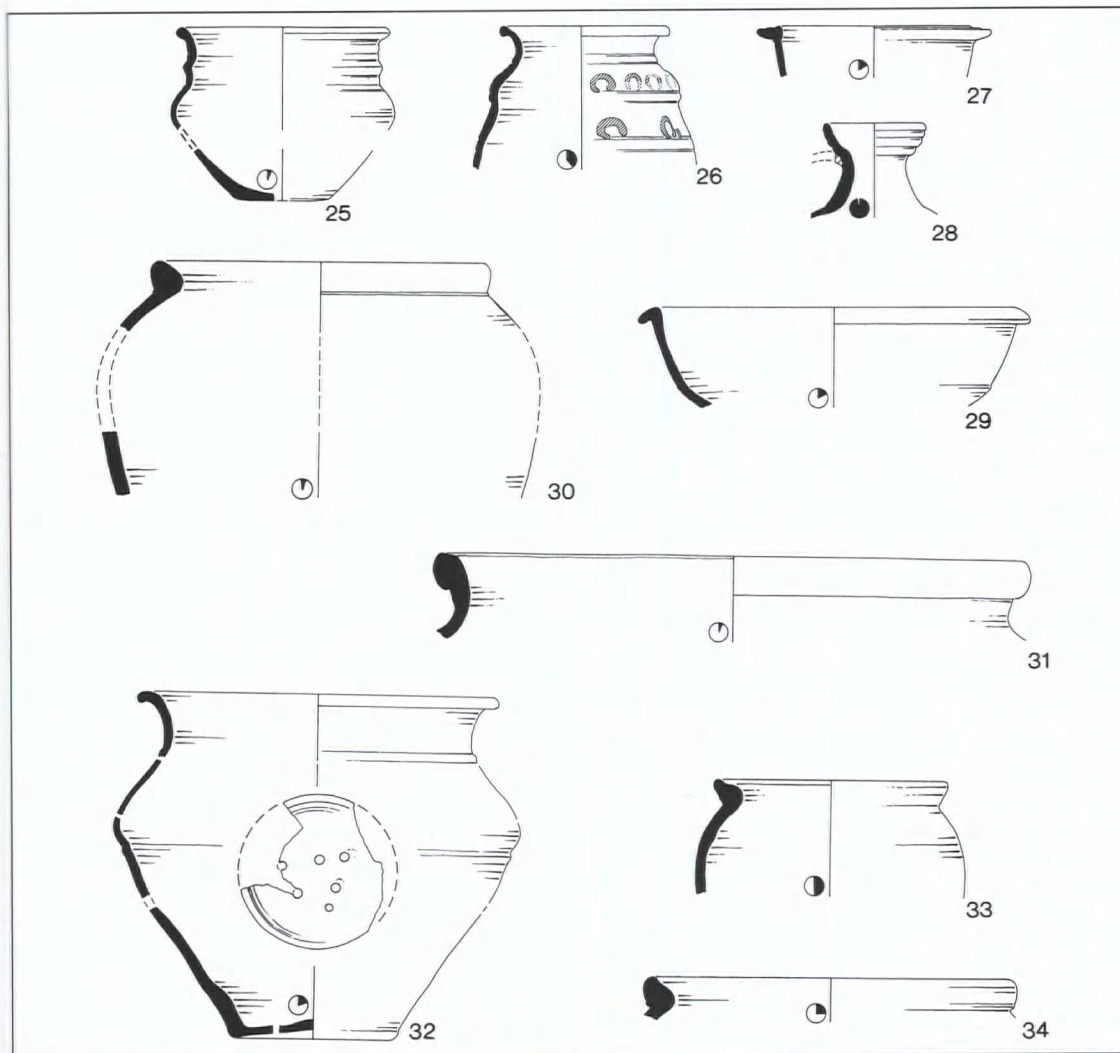
Illustr. no.	Fabric Code	Form	Group	Landscape	Phase
8	F03	Large ovoid storage jar	G.93	L.15	3
9	F19	Neckless ovoid jar	G.93	L.15	3
10	F29	Ovoid jar with slashed decoration to rim	G.93	L.15	3
11	F29	Large storage jar	G.93	L.15	3
12	F29	Large storage jar with fingertip impressed rim	G.93	L.15	3
13	F28	Globular jar with <i>la Tene</i> decoration	G.93	L.15	3

Figure 15 Nos. 8-13 pre-"Belgic" Iron Age pottery: G93 (1:4)



Illustr. no.	Fabric Code	Form	Group	Landscape	Phase
14	F29	Large storage jar	G.73	L.23	4b
15	F29	Large storage jar	G.73	L.23	4b
16	F29	Large storage jar	G.73	L.23	4b
17	F29	Ovoid jar	G.73	L.23	4b
18	F04	Ovoid jar	G.51	L.9	3b
19	F28	Globular jar	G.38	L.3	3b
20	F28	Pedestal base	G.51	L.9	3b
21	F29	Large storage jar with fingertip impressed rim	G.38	L.3	3b
22	F29	Large storage jar	G.53	L.9	3b
23	F29	Ovoid jar with fingertip impressions to rim	G.61	L.1	2b
24	F29	Ovoid jar with scored decoration to body	G.65	L.9	3b

Figure 16 Nos. 14-24 pre-"Belgic" Iron Age pottery (1:4)



Illustr. no.	Fabric Code	Form	Group	Landscape	Phase
25	F09	Cordoned jar	G.36	L.3	3b
26	R03E	Gallo-Belgic copy globular jar	G.16	L.25	5b
27	R03	Reeded-rim bowl	G.16	L.25	5b
28	R05A	Ring-necked flagon	G.16	L.25	5b
29	R06B	Bowl	G.16	L.25	5b
30	R13	Jar	G.16	L.25	5b
31	R13	Jar	G.16	L.25	5b
32	R06B	Jar with multiple perforations to base	G.15	L.16	5
33	R13	Lid-seated jar	G.132	L.16	5b
34	R13	Large storage jar	G.15	L.16	5

Figure 17 No. 25 miscellaneous "Belgic" pottery, nos. 26-31 early Roman (late 1st-early 2nd century) pottery, nos. 32-34 early Roman (early-mid 2nd century) pottery (1:4)

Forms: miscellaneous wheel-made sherds.

Comments: the coarsest type, F06C, is absent from the study area.

F07 Shell tempered

Fabric: fully described by Tilson (1973, 30-31) under the name Clapham shelly ware.

Forms: hand-made vessels of indeterminate form. Scoring or twig brushing is the only form of decoration.

Comments: a number of kilns producing this type, primarily lid-seated jars, have been found in N Bedfordshire, e.g. Bromham (Tilson 1973) and Stagsden (BCAS in prep).

F09 Sand and grog tempered

Fabric: defined by Dawson *et al* (1988, 13).

Forms: carinated cup with everted rim and a single cordon constricting the waist (Thompson 1982, type E-1).

Illustrations: 25.

Roman

R01A Samian – Central Gaulish

Fabric: described by Stanfield and Simpson (1958).

Forms: wheel-made platter/dish (Dr.18/31), bowl (Dr.31) and dish (Curle 15).

Comments: early 2nd-3rd century.

R03 Undiagnostic whiteware

Fabric: fully described in the archive.

Forms: Reeded-rim bowl.

Comments: possibly dated to the 1st-2nd century.

Illustrations: 27.

R03A Verulamium fine whiteware

Fabric: described by Marney (1989, 182: fabric 18g).

Forms: miscellaneous wheel-made sherds.

Comments: late 1st-2nd century. This type was produced in kilns in the Verulamium region.

R03E "Gallo-Belgic" copy

Fabric: White throughout, with patches of orange colour coat surviving. Fabric is hard, harsh to the touch with a fine fracture, containing abundant, well sorted clear or opaque quartz, 0.1-0.2mm and sparse ironstone, 0.4-0.9mm.

Forms: Globular jar with pronounced cordons.

Comments: a possible *Terra Rubra* imitation, Flavian (pers. comm. Friendship-Taylor).

Illustrations: 26.

?R04E Colchester colour coat

Fabric: described by Hull (1963).

Forms: bag-shaped beaker with zoned rouletting.

Comments: mid 2nd-4th century.

R05A Orange sandy

Fabric: described by Parminster and Slowikowski (forthcoming).

Forms: Ring-necked flagon and miscellaneous wheel made vessels.

Comments: 2nd-4th century.

Illustrations: 28

R06A Nene valley greyware

Fabric: described and discussed by Howe, Perrin and Mackreth (1980).

Forms: Miscellaneous wheel-made sherds.

Comments: 2nd-4th century.

R06B Coarse greyware (3.3%)

Fabric: described by Parminster and Slowikowski (forthcoming).

Forms: flanged bowls, flagons, wide and narrow-necked jars.

Comments: 1st-4th century.

Illustrations: 29, 35, 36, 41, 43.

R07B Black sandy (5.5%)

Fabric: described by Parminster and Slowikowski (forthcoming).

Forms: wide necked jars, narrow-necked jars, bowls.

Comments: possibly 2nd century.

R11D Oxford colour-coat

Fabric: described by Young (1977).

Forms: C47 Bowl.

Comments: mid 3rd-4th century.

Illustrations: 40

R12A Nene valley mortaria

Fabric: described and discussed by Howe, Perrin and Mackreth (1980).

Forms: Mortaria.

Comments: late 3rd-4th century.

R12B Nene valley colour-coat

Fabric: described and discussed by Howe, Perrin and Mackreth (1980).

Forms: Folded and miscellaneous beakers.

Comments: late 2nd-4th century.

Illustrations: 39.

R13 Shelly (8%)

Fabric: described and discussed by Brown (1994).

Forms: lid-seated jars, wide-necked jars, storage jars, and bowls.

Comments: 1st-4th century. Kilns have been excavated at Harrold, N Bedfordshire (Brown 1994).

Illustrations: 30-34, 38.

R14 Red-brown harsh

Fabric: described by Parminster and Slowikowski (forthcoming).

Forms: Flagon or bottle.

Comments: first recognised at Kempston, possibly of 2nd-4th century.

Illustrations: 37.

R18A Pink gritty

Fabric: described by Parminster and Slowikowski (forthcoming).

Forms: undiagnostic body sherds.

Comments: possibly 2nd century.

Saxon

A06 Sandy

Fabric: described by Baker and Hassall (1979, 152).

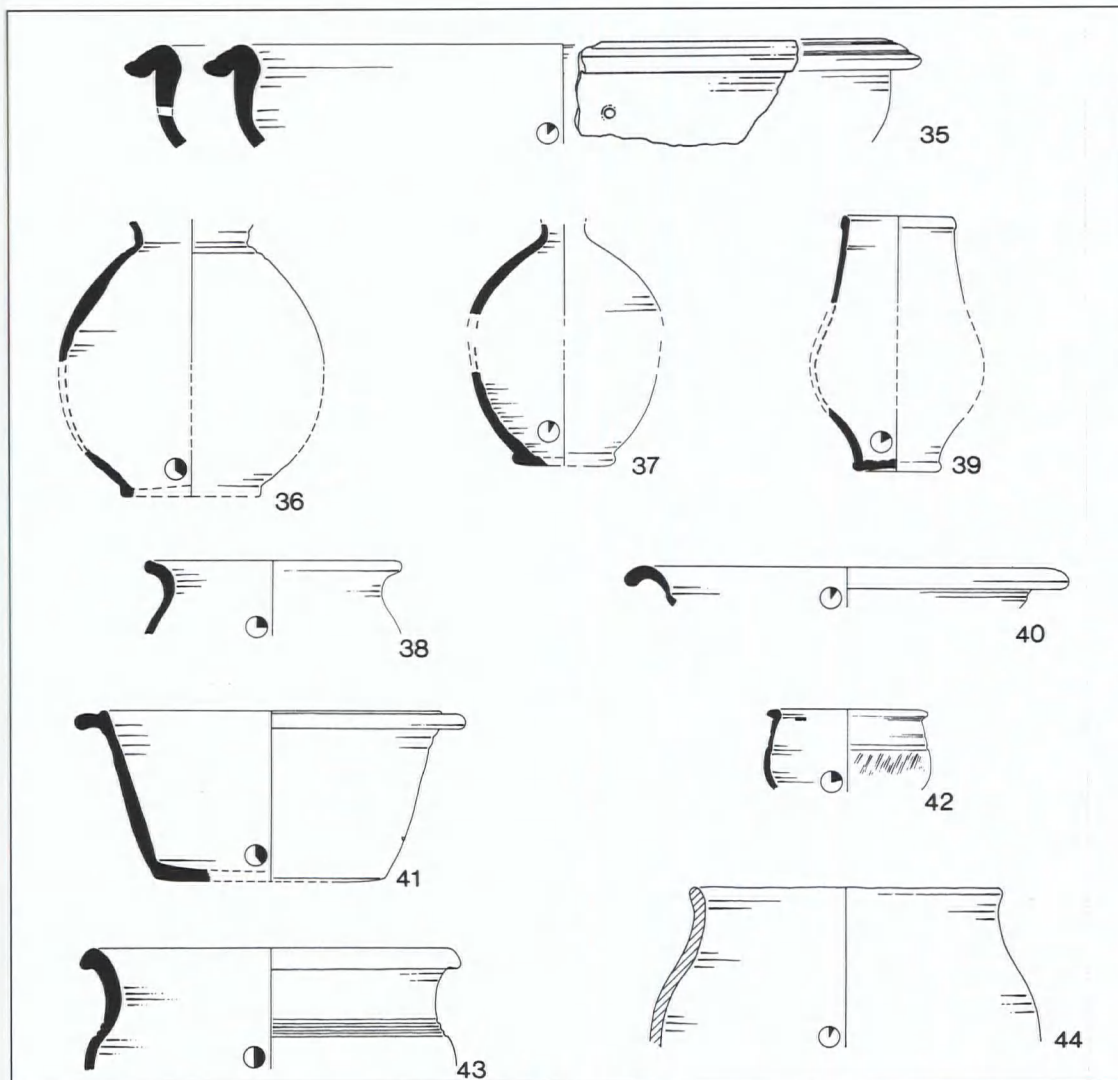
Forms: hand-made jar.

Comments: this type was first defined at Bedford. It has been dated to the Early-Middle Saxon period.

Illustrations: 44.

A16 Mixed coarse quartz

Fabric: hard-fired, fairly rough fabric, usually dark grey or black throughout, although surfaces may be light brown.



Illustr. no.	Fabric Code	Form	Group	Landscape	Phase
35	R13	Bowl with perforation to body	G.15	L.16	5
36	R06B	Narrow necked jar with cordon	G.31	L.16	5
37	R14	Flagon or bottle	G.31	L.16	5
38	R13	Jar	G.31	L.16	5
39	R12B	NVCC Beaker	G.31	L.16	5
40	R11D	Oxford bowl form C47	G.31	L.16	5
41	R06B	Flanged bowl	G.59	L.16	5b
42	R04E	Colchester colour-coat beaker	G.140	L.33	7
43	R06B	Jar with slipped decoration	G.59	L.16	5b
44	A06	Jar	G.28	L.31	6b

Figure 18 No. 35 early Roman (early-mid 2nd century) pottery, nos. 36-40 late Roman (early-mid 4th century) pottery: G31, nos. 41-43 miscellaneous Roman pottery, no. 44 Saxon pottery: G28 (1:4)

Contains abundant ill sorted sub-rounded to rounded quartz inclusions, 0.3-0.6mm, probably deriving from the Greensand. The surfaces of some sherds bear sparse organic impressions. This may indicate that the pottery rested on grass or straw for drying rather than the inclusion of organic matter in the fabric. Forms: hand-made but otherwise indistinguishable.

Comments: pottery of the same fabric type found at Furnells, Raunds, Northamptonshire, has been dated to c.600 AD (Blinkhorn pers. comm.) Comparable examples from Bedfordshire are known at Grove Priory, near Leighton Buzzard and Stratton, Biggleswade, where their use appears to continue well into the Middle Saxon period (BCAS in prep).

IRON AGE POTTERY

Chronology

The current Iron Age ceramic chronology (Knight 1984) in the Nene and Ouse valleys suggests that only broad divisions are definable between assemblages dating to the late Bronze Age/early Iron Age (c. late 9th-5th century BC) and those from the pre-"Belgic" La Tène period (5th-1st century BC). The assemblage from the study area equates well with the later, pre-"Belgic" tradition, with its ovoid forms and restricted decoration.

Fabrics

The range of fabrics is consistent with that known for the middle to late Iron Age in the county. Knight noted no distinct chronological trends in fabric composition in his survey of pottery in the Nene and Great Ouse valley basins. It appears likely that the availability of clays and mineral or other fillers largely dictated fabric composition prior to the late Iron Age "Belgic" period. Consequently a local clay source for the more commonly occurring fabrics from the study area might be expected. Evidence for this is provided by the presence of glauconite within the three fabrics which make up the majority of the assemblage (F03, F28 and F29). Glauconite is a mineral largely peculiar to the Lower Greensand and would occur in the local soils. Clay deposits suitable for making pottery were encountered during the excavation in the form of lenses within the gravels.

Forms

Ovoid vessels were the most common form present (7 vessels), round-shouldered vessels (3 vessels) and globular vessels (2 vessels) being less well represented. Wide variations were noted in the projected size of vessels in the assemblage (Fig 16.21-22). Sherd thickness varied in accordance

with projected vessel size. A broad division was observed between large, heavily built vessels, with sherd thickness varying between 12 and 20mm (640 sherds), and slighter vessels with sherd thickness typically between 8 and 10mm (980 sherds).

The impracticalities of using such large jars for cooking or serving food makes it likely that they were mostly used for storage. These vessels are, therefore, termed large storage jars in this report and frequently have the profile of jars (Fig 14.6, Fig 15.11-13, Fig 16.14-16 and 21-22, Fig 17.34). Bases are extremely thick, up to 30mm, and may be designed to counterweight the vessels and keep them upright on uneven surfaces.

The bulky large storage jars occurred only in coarse sand F29. Given their porosity, it is likely that they were used to store dry foodstuffs, such as grain or flour. It is possible, however, that organic coating could have been used to make the vessel waterproof. The only difference in form between these storage vessels is that the larger vessels appear to be neckless.

One vessel of characteristic "Belgic" form was recovered. This is a wheel-made carinated cup of Thompson's (1982) type E-1. This form of vessel is a miniaturised version of a jar form. Examples of the larger version are known in the county from Radwell (Hall 1973, 73) and Harrold (Hall and Nickerson 1969, 9).

Decoration

The pottery from the study area fits well the broad regional pattern established by Knight (1984) that sees finger ornament (Fig 16.21 and 23) and scoring mainly restricted to coarser fabrics. Vessels of fine sandy F28, as well as featuring the only example of La Tène style ornament (Fig 15.13), were also more frequently burnished than other fabric types.

Manufacture

The pre-"Belgic" Iron Age material is hand-made, either pinch built from a solid lump of clay or in the case of larger vessels, slab or coil-built. Some sherds exhibit low ridges on the interior surface, the result of successively added clay coils or rings. Impressions of organic material (in one case the clear imprint of a fern leaf) suggest the proximity of such material at, or near, the time of manufacture. Organic padding may have been used when the pots were left to dry out, prior to firing. The extensive cracking, probably caused by shrinkage, visible on two grog and sand F17 vessels suggests that this drying process was not always successful.

Variations in colour from vessel to vessel, or (occasionally) on the same vessel, are largely the result of uneven temperatures generated by bonfire firing. A uniform buff or orange-brown colour occurred on a single vessel of fine sandy F28 and 59 vessels of coarser sand F29. The limited numbers and the mixed range of vessels suggest oxidation was accidental and did not result from the deliberate control of the firing.

All the "Belgic" type pottery is wheel-made, a technology that makes possible thin walls and precise appearance of vessel form (Fig 17.25).

Evidence for use

A number of pre-"Belgic" vessels bore features interpreted as the result of use. In three instances this took the form of external sooting, caused by suspension over direct heat, most likely a cooking fire. A further ten vessels preserved traces of internal black residues, probably resulting from accidental burning of foodstuffs during cooking.

Bases from two vessels of uncertain form featured post-firing perforations. In the first instance these took the form of at least three irregularly spaced holes of c.6mm diameter (Fig 14.7). The second vessel is more unusual, featuring a single large central perforation of 11mm diameter. A possible use for such perforated vessels is in the preparation of cheese (Harding 1974, 88). These holes were, however, made post-firing, suggesting that the vessel was originally made for a different purpose.

ROMAN POTTERY

Chronology

The Roman pottery assemblage spans the entire Roman period. The earliest includes a small quantity of "Belgic" styles. The process by which the "Belgic" wheel-made technology supplements then supplants the native hand-made tradition is the subject of some debate (Thompson 1982, 1-5). Other 1st century AD pottery includes Gallo-"Belgic" copies and various white wares. A small quantity of 2nd-3rd century AD Samian ware was present. The dominant fabric R13 can only be broadly dated between the 1st to 4th century AD. A small quantity of late 3rd-4th century AD pottery including Nene Valley mortaria and colour-coats was present.

Fabric and form

Coarsewares are represented by a standard range of local greywares, oxidised sandy wares, blackwares and imported whitewares from the Verulamium region.

Shell tempered pottery is the most common Roman fabric, comprising 43% of the Roman assemblage. The most likely source for the majority of this pottery is Harrold, approximately 23km N of Flitwick. Unlike many kiln sites established in the middle of the 1st century AD, Harrold survived the turn of the century to become a significant regional manufacturing centre, producing coarse kitchen wares throughout the Roman period. Although not the exclusive supplier of shell tempered pottery, the Harrold potters' share of the market was undoubtedly dominant in the region. Represented forms of the known Harrold repertoire, include flanged bowls, rilled lid-seated jars, large storage jars and cooking pots with simple everted rims (Brown 1994).

Reduced sandy wares, predominantly R06 and R07B, account for 45% of the Roman assemblage. Among the forms represented are not only cooking pots but also tablewares, including narrow-necked jars, reeded-rimmed bowls and flagons. More than one source is likely for these fabric types, especially in the earlier Roman period when small local kilns are likely to be the chief suppliers. From the 2nd century AD onwards, the market was dominated by large scale production centres to the eventual exclusion of the smaller local potteries. Only one such centre, the Lower Nene Valley can be positively identified as a supplier of coarsewares. These may have accompanied the more distinctive mortaria and colour-coated vessels.

Oxidised sandy pottery R05A, R03A and R18A, represents only 4% of the Roman assemblage. White and pink gritty fabrics, R03A and R18A, are likely to have been produced in the Verulamium region, predominantly in the 1st to 2nd century AD. Orange sandy R05A cannot be sourced. It is quite unlike the later Roman Hadham and Oxfordshire oxidised products and may be a product of local kilns, more usually producing reduced wares.

In the early Roman period Samian vessels and a single colour-coated globular jar in imitation of a Gallo-"Belgic" type (Fig 17. 26) represent the limited range of finewares. The Samian includes a single example of Curle 15, predominantly pre-Antonine (AD 138-161) and Dr.18/31 (AD 100-150) which represents a transition between platter and bowls (Webster 1987).

Decoration

Standard decorative elements of the period were noted: combing and rilling on R13 shelly wares, rouletting on Nene valley R12B and Colchester colour-coat wares R04E, burnishing on R07B black sandy ware. Some forms of surface treatment such as burnishing, slips and painted decoration may have been lost due to the abrasive effect of the ground conditions.

Evidence for use

One jar of fabric R06B (Fig 17. 32) featured seven perforations to the base, drilled after firing. This possibly served the same function as the perforated Iron Age vessel described above, but, like that vessel, it had been modified to suit a secondary purpose.

Two vessels featured single holes drilled in the body after firing, in one case below the neck of a bowl (Fig 18.35) in fabric R13. The purpose of such holes may have been for attaching a lid, leather thong or metal rivets for repair.

Two vessels provided evidence for cooking over a direct heat source, in the form of sooting to the external surfaces. A third vessel featured an internal black 'tarry' residue possibly caused by the accidental burning of food.

SAXON POTTERY

Three sherds of Saxon pottery broadly dated to the Early to Middle Saxon period were recovered. None was decorated, although one sherd of fabric A06 appears to be burnished. Fabric A16 is more distinctive, with coarse quartz inclusions distinct in the fracture. Only one form was recoverable (Fig 18.44) representing a plain jar with a slightly everted rounded rim.

DISCUSSION OF THE POTTERY BY PHASE

The occurrence of fabric types by vessel count for each Phase, Landscape and Group has been set out in a seriation table (Fig 13). This provides the structure for the following discussion, which considers the pottery of each Phase and Landscape.

Phase 2: pre-"Belgic" Iron Age unenclosed settlement

The Iron Age pottery assemblage from Phases 2, 3 and 4 cannot provide a more precise date than the second half of the first millennium BC. Neither can the pottery serve to elucidate any significant relationships between the various structural elements of the three Iron Age Phases.

Secondary, "disuse", deposits (Phase 2b) contained a small quantity of pottery. Sandy fabrics F28 and F29 dominated the range of fabrics, and the forms are comparable to the material from the succeeding Phase 3.

Phase 3: pre-"Belgic" Iron Age enclosed settlement

This Phase produced the largest quantity of ceramic material from the study area. In common with the preceding Phase most of the Landscapes produced little or no pottery from their primary "use" deposits and often substantially larger quantities from their "disuse" deposits (Phase 3b).

The ditches bounding enclosures L15 and L17 are important exceptions in this respect, producing 399 and 448 vessels respectively from primary deposits. The stratigraphic evidence suggests this material was deposited shortly after the ditches were dug. There is also a low incidence of abrasion on this pottery, 1.2%, compared to 12.5% for pottery from disuse Phase 3b. The pottery assemblage from these ditches comprises approximately 71% of the vessel total from this Phase. It is possible that the pottery represents a dump of accumulated debris from the settlement enclosure L19, although Hill (1995) has suggested ritual interpretations can be placed on such deposits if associated with other unusual assemblages.

The distribution of pottery within the remaining groups of Phase 3 probably reflects in some way usage and/or proximity to living areas. Enclosures L3, L11 and L13, which contain few, if any internal features, are particularly clean. The filling deposits of the settlement enclosure L19 ditch produced little in the way of pottery. Although only sample excavated, it is possible the ditch was intentionally kept free of rubbish or that an internal bank prevented easy access.

With the exception of a single vessel from the "disuse" deposits of enclosure L3, wheel-made "Belgic" pottery is conspicuous by its absence. Small quantities of Roman pottery occur in "disuse" deposits within enclosures L3, L9, L11 and L19. This could suggest that these features did not become completely infilled until long after their original function had ceased.

Phase 4: pre-"Belgic" Iron Age field system

No ceramics were recovered from primary "use" deposits from Phase 4. "Disuse" deposits (Phase 4b) mainly from L23 produced large quantities of

pottery. The majority of this assemblage was deposited within the terminal of ditch G72. Overall the assemblage from Phase 4b is comparable to that from Phases 3 and 3b, being hand-made and predominantly of sandy fabrics. There are minor differences: for example, a greater tendency towards flattened rims and an overall paucity of decoration (two vessels exhibiting random scoring). In common with Phase 3b small quantities of Roman pottery is also present from secondary filling deposits.

Phase 5: Roman field system and trackway

The Phase 5 pottery assemblage spans the entire Roman period. The majority of the assemblage came from enclosure L16, with a smaller quantity coming from the adjacent (partially investigated) enclosure or field L25 and none from trackway L27. The trackside ditches were excavated in several locations so the absence of pottery is significant and suggests this track did not provide a focus for occupation.

The assemblage suggests occupation commenced early in the 2nd century AD and continued at least into the late 3rd century AD. The assemblage mainly comprised locally produced coarsewares with a limited range of imported finewares including colour-coats and Samian. The broad dating assigned to the dominant coarsewares (R06B and R13) prevent a more detailed sub-division of the Roman period. The majority of the settlement activity dates to the 2nd century AD with only limited activity continuing into the 4th century AD.

The broad dating assigned to the greywares means only two Groups produced closely dated pottery assemblages.

Pottery from deposit G16 (filling the terminal of ditch G13) can be dated to the late 1st-early 2nd century AD. Amongst the finewares are Samian forms, including Curle 15 (AD 138-161) and Dr.18/31 (AD 100 -150). Additionally, the ring-necked flagon (Fig 17.28), in orange sandy fabric R05A, is characteristic of the late 1st-early 2nd century AD.

Coarsewares from G16 are less well datable but are consistent with this early Roman date. Forms mainly consist of simple everted rimmed cooking jars; also present are three lid-seated jars in shelly fabric R13, a form ultimately derived from "Belgic" antecedents. The rilling below the rim on these vessels is a common feature of Harrold products.

A second closely dated deposit came from pit G31 (within enclosure L16), which contained an

assemblage of 4th century pottery (Fig 18.36-40). Finewares from this group comprise colour-coated products from the Nene Valley and of Oxfordshire type. These dominate the fineware markets in the later Roman period after the cessation of Samian imports to Britain in the mid-3rd century AD. The type C47 Oxfordshire bowl, a form in imitation of Samian Dr. 36, was current in the period AD270-400+ (Young, 1977, 158). Production of Nene Valley folded beakers commenced in the late 2nd century AD, but they are rare after the mid-4th century AD. The beaded rim forms, which occur on all the represented vessels (Fig 18.39) point to a 4th century AD date (Howe, Perrin and Mackreth 1980).

Phase 6: unenclosed Saxon settlement

A small assemblage of Saxon pottery was recovered from features assigned to Phase 6. The Saxon pottery from deposit G146 (filling ditch G145) and deposit G28 (filling well G27) was assigned to the Early to Middle Saxon period.

THE CERAMIC BUILDING MATERIAL

Ed McSloy

INTRODUCTION

Ceramic building material from the study area comprises twenty-three fragments of brick or tile, weighing 1437g and ninety-nine fragments of miscellaneous fired clay weighing 407g.

BRICK AND TILE

Type series

RB01 Sandy

Fabric: hard fired, fairly smooth fabric, orange throughout, or reddish where over-fired. Contains abundant, well-sorted sub-angular, clear or whitish quartz c. 0.2-0.5mm also rare dark red and black iron ore c. 0.1-0.3mm.

Forms: brick, *imbrex* and unidentified fragments.

RB02 Grey-cored sandy

Fabric: hard, fairly smooth fabric with bright orange to dark red-brown surfaces, characteristically with blue-grey core. Contains generally abundant clear or milky white quartz 0.1-0.5mm and poorly sorted red iron inclusions 0.5-1.0mm. Also sparse mica specks and shell fragments.

Forms: brick and unidentified fragments.

RB05A Shelly

Fabric: fairly soft, smooth fabric. Pale orange in colour, occasionally with grey core. Characterised by abundant shell inclusion, indicated by plate-like voids 2-4mm in size.

Forms: *tegulae*, flue tile, brick and unidentified fragments.

Discussion

Eighteen fragments of Roman brick and tile were recovered from stratified deposits within Phases 5 and 5b. The majority of this material is made up of fabric types, RB01 and RB02, with quartz sand inclusions. No kilns producing brick or tiles in these fabrics are known in the immediate vicinity, although a local source remains possible, conceivably using quartz sand from the Greensand ridge as a tempering agent. The remaining five tile fragments are of shelly fabric RB05A. The most likely source for this fabric is the Harrold kilns located to the NW of the county. Products from the Harrold pottery kilns are present within the study area and the same site is known to have produced building material.

The largest concentration, eleven fragments, came from a deposit filling pit G31 (Phase 5). Fragments included examples of brick, flue tile, *imbrex* and large fragments of *tegula*. The quantity and variety of brick and tile from these deposits contrasts with the paucity from other deposits. The pottery assemblage from this group is uniquely dated to the late 3rd to mid 4th century AD. The presence of flue tile and roofing tile in this feature suggests the presence of a high status building in the vicinity during the later Roman period.

MISCELLANEOUS FIRED CLAY

Type series

Sand

Pale orange throughout. Generally soft and smooth to touch. Contains sparse to common, poorly sorted sub-rounded clear or milky white quartz, typically between 0.4 and 0.8mm.

Sand and organic

Orange throughout. Soft and smooth to touch. Contains sparse to common well sorted sub-rounded clear or milky white quartz, typically between 0.4mm and 0.6mm. Also common linear voids between 4 and 7mm where organic inclusions have burnt out or otherwise perished.

Discussion

Small quantities of daub were recovered from the majority of the phases of occupation. There was no correlation between fabric type and dating. Only a few pieces displayed attributes hinting at their original function. A number of pieces were smoothed or bore finger impressions as if moulded by hand. A single fragment preserved a rounded wattle impression.

It seems likely that the bulk of this material represents structural daub, preserved by accidental contact with fire.

REGISTERED AND NON-CERAMIC BULK ARTEFACTS

Ed McSloy

INTRODUCTION

A total of twelve registered artefacts were recovered from the study area. Additional non-ceramic bulk artefacts included three pieces of worked timber, seven iron nails, 1136g of ferrous metalworking residues and 256 worked or burnt flints.

These artefacts were assigned to functional categories, in accordance with the Bedfordshire Artefact Typology. Catalogue entries are given only in cases where the artefact is typologically datable or of intrinsic interest. The lithic assemblage, all residual in later deposits, is only summarised, a full report is contained within the site archive.

The catalogue entries are prefixed by coding containing the following information:

RA 2	G51	L10	Ph6
Registered	Group	Landscape	Phase
Find No.	No.	No.	No.
or timber			
No.			

FUNCTIONAL CATEGORY 1: BUILDINGS AND SERVICES

Two oak stiles and an ash rung, part of the same wooden ladder, were recovered from a secondary fill within well G28. The two upright stiles were perforated for the insertion of rungs, one of which was still attached. The rung had been prepared from a length of roundwood, the upper side showing signs of axe marks. An elongated perforation through each of the stiles may have been originally designed to accommodate an extra wide rung. The position of the perforations on discovery did not correspond between stiles suggesting that the ladder may have been reassembled from broken components. In the reused form they may have functioned together with a 'tusk tenon' as a combined rung and lock-bar (pers. comm. D. Goodburn).

Saxon period ladders have been recently excavated at Pennyland and Hartigans, Bucks (Williams 1993, 88, 163, 197-8) where they were thought to be 7th century or earlier in date. These were similar to the Hinksley Road ladder in both the species of wood used and construction techniques. Both were 'side axe' hewn; one was made from a mix of oak, field maple and blackthorn, the other

from field maple and ash. The ladder from Hinksley Road would appear to be unusual in its use of a lock-bar.

Wooden ladder (Fig 19)

903, Stile, G28, L31, Ph 6b, *Oak*

Secondary fill of well G27. Surviving length 900mm, width 90-110mm, thickness 51-53mm. The top of the stile had rotted badly, otherwise preservation was good. Individual axe marks, cut with the direction of the grain, are identifiable. The stile tapers away from the rounded end, although this is exaggerated by shrinkage. Evidence for three rung-holes survives. Two are circular, measuring 40mm in diameter and presumably augured. The third is elongated, measuring 120mm wide, and was probably initially constructed using an augur and subsequently expanded using an axe.

904, Stile, G28, L31, Ph 6b, *Oak*

Secondary fill of well G27. Surviving length 57mm, width 85-103mm, thickness 45mm. More fragmentary than stile 903, missing terminal and featuring parts of only two rung-holes (including elongated type). Axe-marks running with the grain are identifiable on all faces. In common with stile 904 the upper end is badly decayed.

905, Rung, G28, L31, Ph 6b, *Ash*

Secondary fill of well G27. Length 502mm, width 45mm, thickness 28-30mm. Complete rung was found *in situ*, joining the two stiles. It was made from a halved wooden stake, with the flat face uppermost and both ends reduced for fixing to stiles.

FUNCTIONAL CATEGORY 2: FASTENERS AND FITTINGS

Iron nails

Seven nails were recovered, all of Roman date and all from Phase 5 deposits. Six conform to Manning's multi-purpose timber nail type 1B, being flat-headed with tapering square section (Manning 1985, 134-137). The remaining nail comprises a shank only. The complete nails from pit G31 measure 70mm in length.

FUNCTIONAL CATEGORY 3: HOUSEHOLD

Querns

Simple saddle querns (RA 2 and RA 5) were used from the Neolithic to the Iron Age. RA 2 was found in association with ceramics of pre-"Belgic" Iron Age date and is likely to be contemporary. Quern RA 4, residual within a Roman deposit, is likely to have been derived from the Iron Age occupation. The source for both querns is almost certainly from tertiary deposits on the Greensand ridge. Rotary

quern fragment RA 5 was recovered from well G27, associated with ceramics of Early to Middle Saxon date and residual Roman pottery. The fragment itself may be residual from Roman occupation. The use of granite in this area is unusual, with the nearest British source situated at Charnwood Forest, Leicestershire.

RA 2, G51, L9, Ph 3b,

Medium-grained ferruginous sandstone saddle quern fragment from secondary fill of ditch G50. Roughly square, preserving one outside edge and a smoothed grinding surface, sloping gently towards the centre. Length (surviving) 143mm; width 110mm; thickness 130-111mm.

RA 4, G59, L16, Ph 5b, (Fig 20)

Medium-grained ferruginous sandstone saddle quern fragment from secondary fill within pond G58. Preserves dished profile and smooth grinding surface. Length (surviving) 200mm; width 125mm; thickness 75-45mm.

RA 5, G28, L31, Ph 6b,

Granite rotary quern fragment (upper stone?) from secondary fill within well G27. Retains one original rounded edge and well smoothed grinding surface. Shallow concentric scratch marks on the grinding surface match the outside edge and suggest a rotary action. Length (surviving) 113mm; width 70-83mm; thickness 91mm.

FUNCTIONAL CATEGORY 4: CRAFT AND INDUSTRY

Leather fragments

The leather fragments from well G27 displayed no stitching or other diagnostic features. Two fragments did preserve knife cut edges suggesting they were manufacturing waste. The grain pattern was not visible and the animal species cannot be identified.

Loomweights

Fragments from two Anglo-Saxon annular loomweights were recovered. Although incomplete, both conform to Dunning's early type where the internal diameter exceeds the width of the body (Dunning *et al* 1959). Loomweights of this type are widely distributed and date to no later than the late 7th century AD. RA 13 was recovered from the upper fill of a Roman ditch which was likely to have still been partially open in the Saxon period.

RA 11, G28, L31, Ph 6b, *Ceramic* (Fig 20)

'D' sectioned 'annular' loomweight from secondary fill within well G27. Approximately 60% complete. Fabric is hard, reduced to grey or black throughout. Contains abundant clear or milky white quartz 0.2-0.5mm, sparse flint, 0.5-2.8mm; and

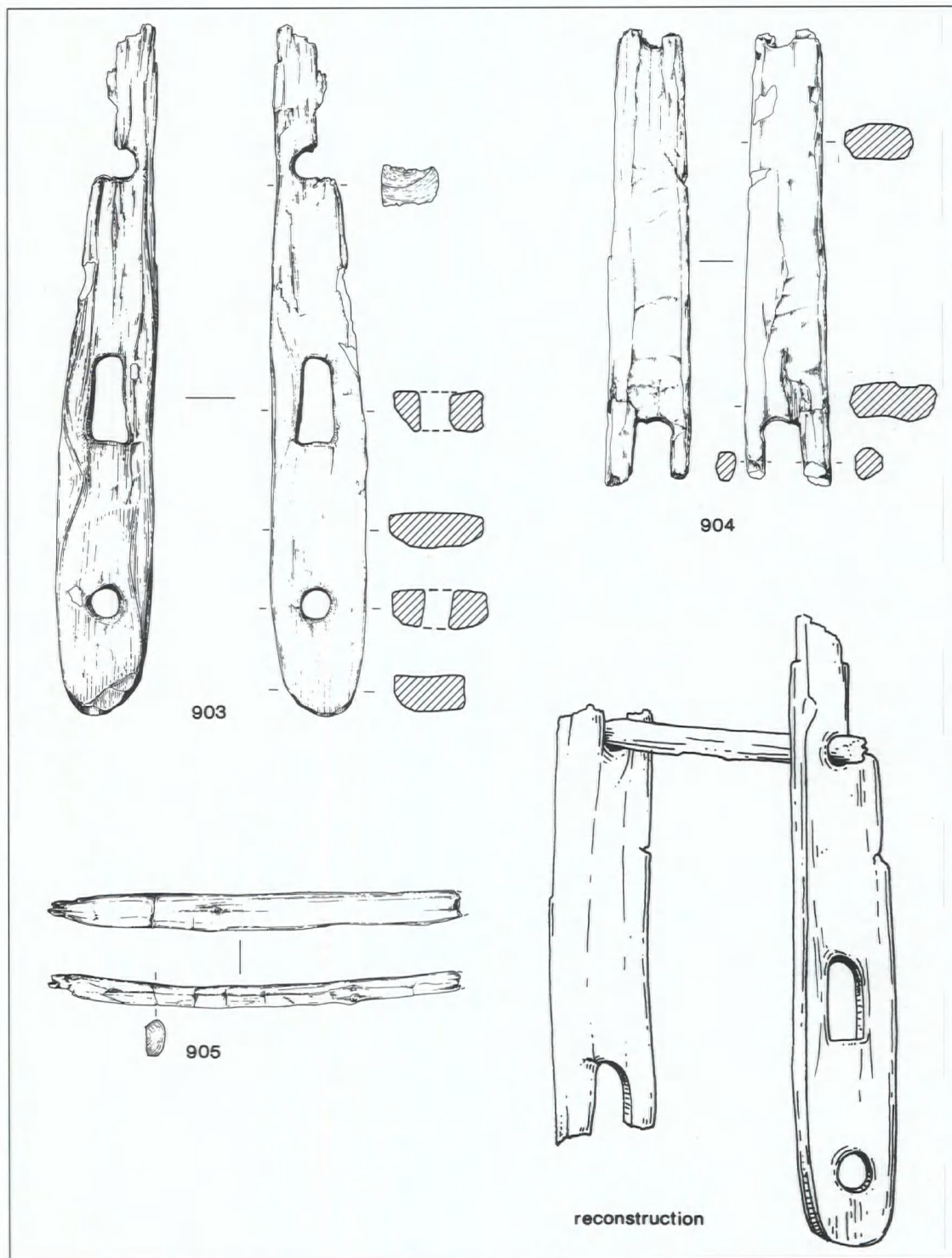


Figure 19 Stiles RA 903 and RA 904 and rung RA 905 (scale 1:8) and partial reconstruction of ladder

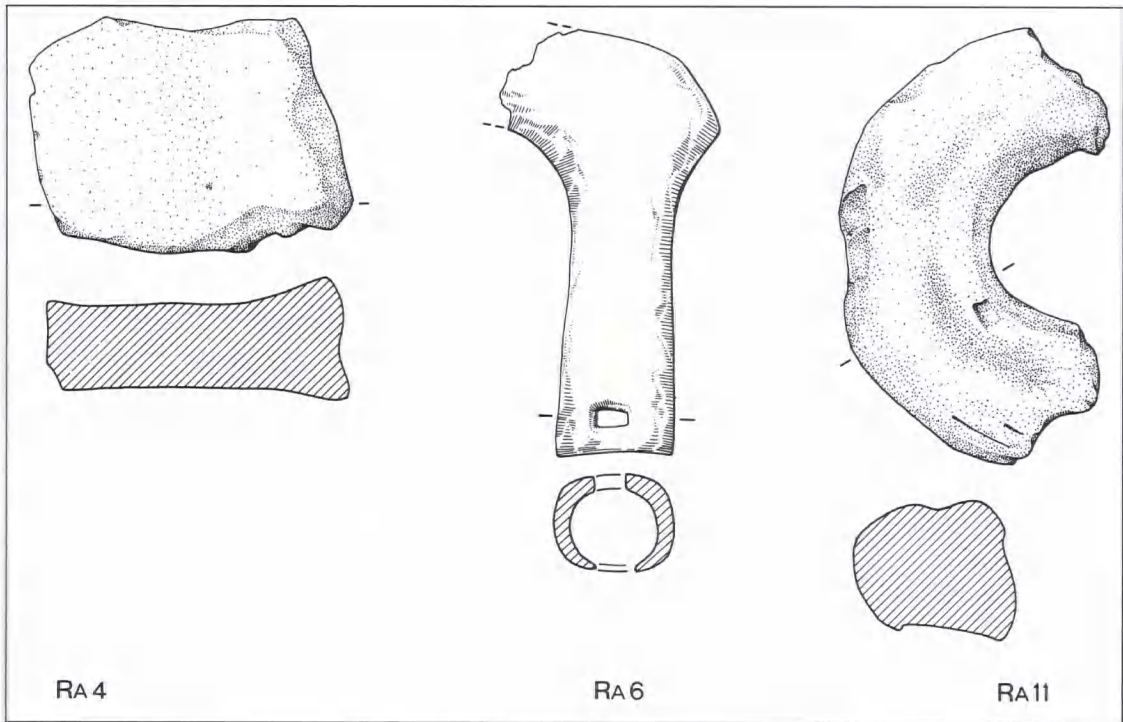


Figure 20 Quern fragment RA 4 (scale 1:4), reaping hook RA 6 and loomweight RA 11 (scale 1:2)

sparse calcareous material, 0.5-1.6mm. Estimated external diameter 120mm; estimated internal diameter, 70mm; depth 37mm.

RA 13, G4, L27, Ph 5b, *Ceramic*

Round sectioned annular loomweight from tertiary fill within ditch G3. Approximately 20% complete, comprising only part of the inner ring. Fabric is very soft, with orange coloured surface and mid-dark grey core. Contains only sparse clear quartz 0.3-0.6mm. Estimated internal diameter 50-60mm.

Ferrous metalworking residues

Small quantities of ferrous slag (iron silicate) were recovered from the study area, principally from Iron Age phases (Table 1). Of this material, only the

hearth bottoms from deposit G125 (filling pit G124) and deposit G91 (filling ditch G90), can be related to a particular metal-working process (iron smithing). Both examples exhibit the characteristic dished surfaces resulting from pressure diverted downwards from the tuyère. Unfortunately only that from deposit G91 is complete, measuring 70x85mm and 35mm in depth. These dimensions, although small, are comparable to those of Iron Age hearth bottoms from Salford, Bedfordshire (Duncan forthcoming).

The remaining slag consists of vesicular material, in blocky or amorphous form, which can originate from either smithing or smelting.

Phase	2b	3	3b		6b	
Groups	125	91	108	123	138	Total
Fill of	124	90	107	122	137	
vitified clay			4			4g
dense ferrous slag	—	—	—	47	—	47g
vesicular ferrous slag	—	—	—	22	148g	170g
hearth bottom	610	309	—	—	—	919g
Total	610	309	4	69	148g	1140g

Table 1 Industrial residues (weight in g) by phase

FUNCTIONAL CATEGORY 10: AGRICULTURE AND HORTICULTURE

Reaping hook

Reaping hooks are known in Britain from the early Iron Age and continue in use into the Roman and medieval periods. The example from Hinksley Road cannot be classified and dated exactly because it is incomplete. An Iron Age date is probable, although a later date cannot be ruled out. The rivet hole set into the socket is a feature of many recorded Roman examples (Manning 1985, plates 22-25).

RA 6, G93, L15, Ph 3, Iron (Fig 20)

Heavily corroded, split-socketed object from primary fill of ditch G92. Revealed by x-ray to incorporate part of a curving blade. The socket is apparently perforated close to the end, presumably to accommodate a rivet. Length c.72mm; diameter of socket c.37mm.

FUNCTIONAL CATEGORY 15: FLINT ARTEFACTS

The flint was in a variable condition, suffering from considerable post-depositional damage. Cortex remained on c.48% of the worked flint, suggesting that the raw material was often small nodules derived from local gravel or clay deposits.

The presence of a crested blade (Fig 21.1), a number of bladelets and truncated blades (Fig 21.2) indicates Mesolithic activity. Two end-scrapers of similar form were manufactured from long and narrow blade-like blanks. These are probably of Mesolithic or early Neolithic date (Figs 21.3 and 21.4).

The majority of the assemblage is likely to date to the late Neolithic and beyond. The cores are multi-platform, varying in size and lacking edge preparation noted with the blade cores. One knife (Fig 21.5) has a backing of continuous abrupt retouch and partial invasive retouch to the cutting edge; this technique may indicate a "Beaker" date.

No variations were detected in the flint artefacts recovered from Iron Age deposits to those artefacts, considered typologically to be late Bronze Age in date. Unlike at Thetford (Gardiner 1993) and St. Ives (Pollard 1996) there was no evidence to suggest that the use of flint continued into the Iron Age.

OVERVIEW OF THE REGISTERED AND NON-CERAMIC BULK ARTEFACT EVIDENCE

The small non-ceramic artefact assemblage allows

only limited conclusions to be drawn about the character and date of activity within the study area.

Early prehistoric

Evidence for early prehistoric activity is limited to a large but disparate flint assemblage that ranges in date from the Mesolithic to the Bronze Age. No significant concentrations were detected by the field artefact collection and few tools were present.

Iron Age

Non-ceramic artefacts from deposits assigned to Iron Age phases are confined to fragments from two saddle querns and a reaping hook. The relatively small quantity of industrial residues recovered from Phases 2b and 3b is consistent with the likely scale of craft activity at small farmstead sites. The presence of two hearth bottoms suggest small scale smithing was taking place, in common with most Iron Age settlement sites. The residues do not assist a recent re-appraisal of Iron Age metalworking practises, which suggested that smelting may have been far more widespread than once thought.

The overall dearth of artefacts dated to the Iron Age is in contrast to the large pottery assemblage from the study area. This apparent imbalance can partly be explained by the economics of the period, notably the rarity and expense of metals. In such circumstances, metal items of all kinds would be carefully looked after and wherever possible "recycled" if worn out. The small number of quernstones may be more significant and give a genuine indication of the relative insignificance of cereal production.

Roman

Non-ceramic artefacts of Roman date comprise a granite quern fragment and seven iron nails. This meagre assemblage reveals little about the nature of activity in the Roman period. The presence of nails reflects changes in construction techniques, while their discard may indicate an increased capacity for iron production. The presence of a quern of granite, possibly from Leicestershire reflects the expansion in trading routes which characterises the period.

Saxon

Evidence for Saxon activity within the study area comprises two fragments of annular loomweights, the lower part of a wooden ladder and three small fragments of leather. All artefacts, except one of the

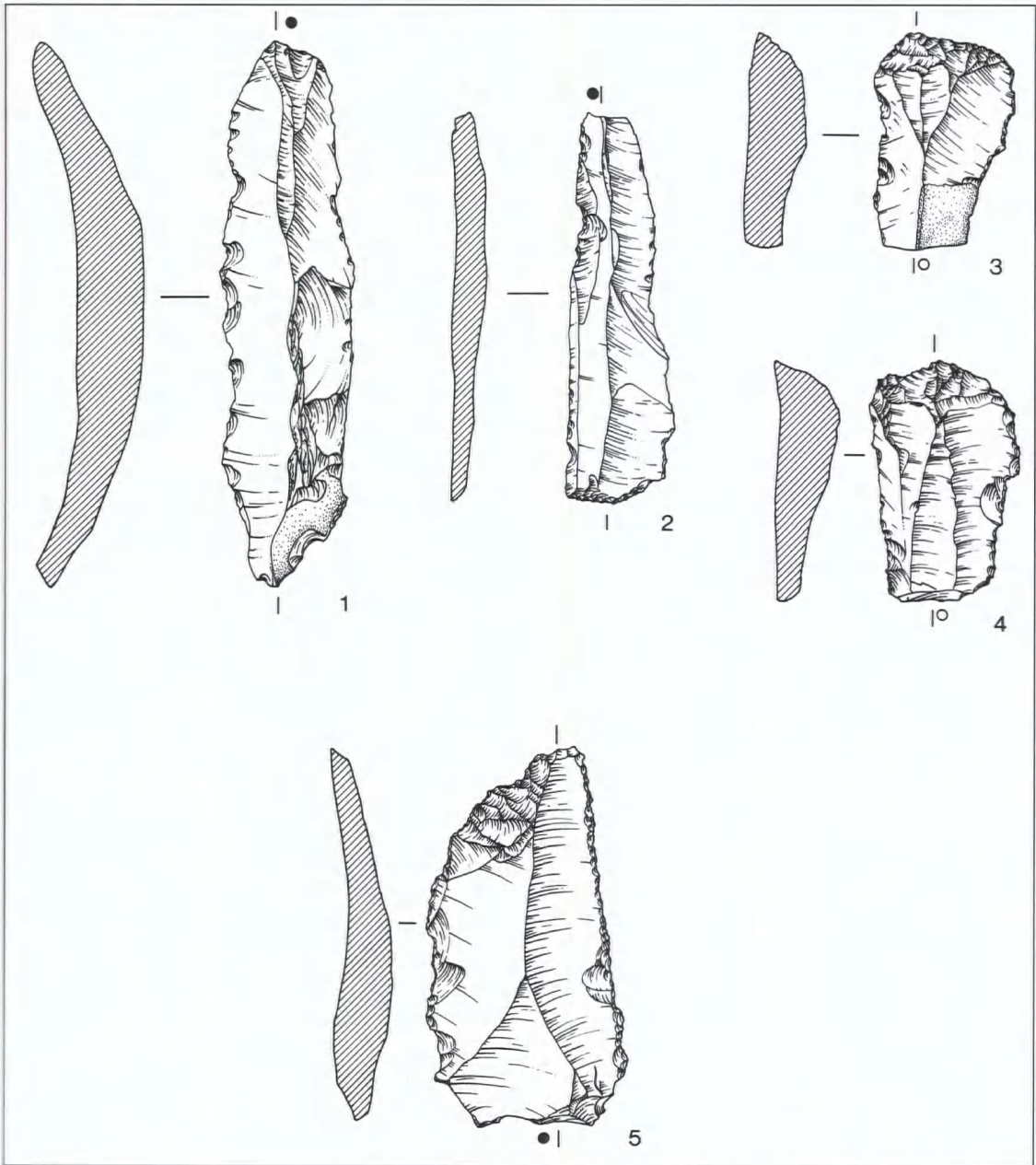


Figure 21 Flint artefacts (scale 1:1).

1) Crested blade 2) Truncated blade 3-4) Scraper 5) Knife

loomweight fragments, were deposited in well G27. Annular loomweights are generally ubiquitous on Saxon settlements reflecting a truly 'home-based' weaving tradition. King (1986) in his study of over

500 Millstone Grit and lava querns from the region failed to identify any material of conclusively early Saxon origin.

ENVIRONMENTAL EVIDENCE

INTRODUCTION

A total of twenty-two soil samples were collected during the evaluation and the excavation. Sampling was targeted on waterlogged deposits and deposits containing visible charred plant remains.

WATERLOGGED MACROSCOPIC PLANT AND INVERTEBRATE REMAINS

Mark Robinson

Only four samples contained waterlogged remains. The material was assessed but no detailed analysis was undertaken.

6, G99, fill of pit G98, L3, P3b

Preservation was mediocre. Plant remains included glumes of *Triticum spelta* (spelt wheat), frond fragments of *Pteridium aquilinum* (bracken) and various weed seeds. Beetle remains included dung beetles such as *Aphodius* sp.

12, G59, fill of pond G58, L16, P5b

Preservation was poor. Contained seeds of marsh/water edge plants.

16, G28, fill of well G27, L31, P6b

Produced an assemblage very similar to that of sample 12.

20, G58, fill of pond G58, L16, P5b

Preservation was very poor. Contained glumes of *Triticum spelta* (spelt wheat).

CHARRED MACROSCOPIC PLANT REMAINS

Lisa Moffett

The soil samples were processed by water flotation, using a 0.5mm mesh sieve to collect the flots, which were then dried at room temperature. The flots were sorted and the material identified by the author, using a low power binocular microscope at up to x40 magnification. The taxonomy used follows Stace (1991). Five samples contained charred remains. The results are summarised below; the detailed quantification is retained in the site archive.

4, G34, fill of hearth G33, L18, P5b

Contained very little other than wood charcoal.

5, G102, fill of pit G102, L16, P5

The charred material consisted mainly of grains of wheat (*Triticum* sp.) and unidentifiable cereal grains which were probably also wheat. The wheat may have been spelt (*Triticum spelta*), although it was not possible to be certain about this from the small amount of chaff material recovered. A few weed

seeds including dock (*Rumex* sp.), vetch or vetchling (*Vicia/Lathyrus*) and grasses (Poaceae) were present; these could have been crop contaminants. A single seed of hawthorn (*Crataegus* cf. *monogyna*) and a thorn which could have been hawthorn or sloe (*Crataegus/Prunus spinosa*) may have been associated with the wood charcoal in the sample rather than the crop remains.

7, G93, fill of ditch G92, L15, P3

Contained very little charred material with a few grains of wheat (*Triticum* sp.) and grass seeds (Poaceae).

9, G52, fill of ditch G50, L10, P3b

Contained very little charred material with only a single grain of wheat (*Triticum* sp.).

17, G26, fill of ditch G25, L18, P5b

Contained somewhat more chaff fragments than cereal grains. The chaff fragments were mostly glume bases identified as either emmer or spelt (*Triticum dicoccum/spelta*), although the few which were well preserved enough to identify to species were all of spelt. About half the cereal grains could be identified as wheat; the other half were unidentifiable. The weeds in the sample were similar to those in the material from sample 5.

DISCUSSION

Phase 3: pre-“Belgic” Iron Age enclosed settlement

The samples provide only limited information on the economy and local environment of the Phase 3 Iron Age settlement. The glumes of spelt wheat in the waterlogged sample 6 may have been derived from crop processing. The fragments of bracken, which is known from several Iron Age sites, in the same sample may indicate this plant was imported as a bedding material for animals or humans. The presence of dung beetles may be interpreted as further tentative evidence for the presence of livestock within one of the non-settlement enclosures.

Phase 5: Roman enclosures and fields

It is possible that the charred remains from samples 5 and 17 represent different stages of crop (probably spelt) processing. Sample 5 could be from a stage where the crop was fully, or almost fully, processed and ready for consumption, while sample 17 could represent the fine sieving by-product of crop processing (see Hilman 1984) with some grain mixed in from another source. The sample from the well, however, could have had more chaff material in it before it became charred and may not have been as fully processed as it now seems. The evidence from the charred plant remains does not

show whether the crop was grown at the site. Spelt can be stored in the spikelet (*i.e.* with the grain still enclosed in the glumes) to prolong its storage life.

Phase 6: unenclosed Saxon settlement

The seeds of marsh/water edges plants recovered sample 16 are appropriate for a feature interpreted as a well.

ANIMAL BONE

INTRODUCTION

Animal bone was hand collected from 21 deposits; in addition only two soil samples produced bone. The soil conditions are likely to explain the small quantity recovered and the assemblage's extremely fragmentary nature. The best preserved material was recovered from deposits likely to have been subject to a degree of waterlogging.

Where possible the assemblage was identified to species and skeletal element. The material was assessed for potential but no detailed analysis was undertaken due to the small and fragmentary nature of the assemblage.

DISCUSSION

The bulk of the assemblage was recovered from deposits assigned to Phases 3 and 5. In Phase 3 cattle bones were only recovered from the non-settlement enclosures, although cattle, dog and pig bones were recovered from the settlement enclosure. Horse bones were only present in Phase 5 deposits that also contained cattle bones. The majority of the bone from Phase 5 comprised cattle, dog and pig from pond G58 and horse from adjacent features.

DISCUSSION

INTRODUCTION

Despite the relatively limited extent of the study area, the investigations revealed several phases of activity from the Iron Age to the Saxon period. Unfortunately, notwithstanding a sizeable pottery assemblage, the three pre-"Belgic" Iron Age phases cannot be more precisely dated than the 5th-1st century BC. The earliest settlement was unenclosed and was subsequently replaced by a substantial enclosed farmstead. Later during the pre-"Belgic" period settlement may have shifted beyond the

study area. Although activity dating to the early Roman period was located, it is possible the main area of Roman settlement was situated to the W of the study area. Only limited activity took place during the later Roman period, prior to the establishment of an unenclosed Saxon settlement.

EARLY PREHISTORIC ACTIVITY

Early prehistoric activity is suggested by a flint assemblage ranging in date from the Mesolithic to the Bronze Age, similar to that located at Ruxox Farm (Fadden 1970). Despite the presence of a double ring ditch to the east of the study area no habitation of this period existed within the study area.

PHASE 2: UNENCLOSED PRE-"BELGIC" IRON AGE SETTLEMENT

The limited nature of the artefactual assemblage from the earliest settlement makes precise dating impossible. The sparse ceramic assemblage is restricted to sandy fabrics F28 and F29, which correlate to the second chronological subdivision established by Knight (1984); 5th-1st century BC. This tradition is dominated by ovoid forms and restricted decoration.

The nature of the settlement, with the total absence of boundaries, can be classed as 'open' or unenclosed. At the time of Knight's study this class (Group 4) was considered relatively uncommon in this region. Hingley's (1984) study of settlement evidence and social organisation within the Upper Thames Valley suggested that although these settlement types appear similar in form, they result from diverse social and economic functions. A comparable 'open' settlement at Bancroft (Williams and Zeepvat 1994) was situated in a similar geographical location on high ground overlooking a river valley. The excavators of this site considered the absence of enclosures was probably explained by the stalling of livestock nearer the valley bottom, closer to the supply of water.

The settlement comprises three foci of activity, each including evidence for buildings and isolated small pits. The buildings conform to the general type found elsewhere in the region, for example Bancroft (Williams and Zeepvat 1994), with circular buildings contained within drainage ditches. The semicircular structure G19 does not fit neatly into Knight's classification of this type of structure. The excavated example cannot contribute to the debate as to whether they were roofed. It may

be significant that like other examples, e.g. Moulton Park (Williams 1974), the open side was situated to the W. They may have functioned as small animal pens or windbreaks behind which other activities took place. Perhaps significantly, the Hinksley Road structure was associated with a pit which may have been lined. As at Bancroft, it is impossible to define whether the settlement pattern resulted from the linear drift of a single farmstead or represented a degree of zoning within a larger settlement.

The scarcity of animal bone (due at least in part to soil conditions) and plant remains prevent a fuller discussion on the settlement's economy. The significance to be attached to the absence of both 4-posters and storage pits is unclear. Bancroft contained 4-post structures interpreted as grain stores (Williams and Zeepvat 1994) but no storage pits. At Bancroft it was suggested that the total absence of storage pits was due to the poorly drained nature of the subsoil. Had storage pits existed beyond the limit of excavation at Hinksley Road, the geophysical survey would have located them. Therefore, the balance of evidence appears to suggest that the storage of grain was not a major feature of the economy of the settlement.

The settlement, like Pennylands (Williams 1993), was probably agriculturally self-sufficient. The general styles and types of pottery suggest it was manufactured locally. The fragment of a hearth bottom indicates that iron smithing for repairing and reforging tools was undertaken within the settlement. The absence of metal artefacts suggests few items were ever disposed of, probably because they were being continually recycled.

PHASE 3: ENCLOSED PRE-"BELGIC" IRON AGE SETTLEMENT

A substantial ditched settlement enclosure, presumably with a bank/hedge, was established on the site of one of the Phase 2 farmsteads. This enclosure was sub-circular in plan, enclosing an area of 1,034m² surrounded by a ditch 3.8m wide and over 0.8m deep. The area and shape of the enclosure are similar to those excavated at Pennylands and Wavendon Gate (Williams *et al* 1996). The substantial nature of the ditch may be compared with the ditch enclosing settlements at Moulton Park and Draughton (Grimes 1961). At Draughton the enclosure was 30m across and contained three houses of varying size. The four possible entranceways into the Hinksley Road enclosure were only located by geophysical survey

and are, therefore, not proven. The S entrance was associated with additional external ditches designed to control access. The tradition of enclosing the principal settlement area with a ditch and bank is common from the 4th century BC to the Roman Conquest and beyond (Cunliffe 1991).

The settlement enclosure contained two roundhouses, identified by their circular drainage gullies. The larger (12m diameter), centrally placed building would have dominated the enclosure. The second, smaller, structure was located close to the enclosure's S ditch. No evidence of walling in the form of postholes, palisades or stakeholes was located. The position of the doorway in both buildings is uncertain, although door posts for the larger building were probably situated to the NE. The smaller roundhouse clearly did not have a doorway to the W and it is probable that both roundhouses conform to the expected pattern with doorways situated to the E (Oswald 1991). Hill (1995) suggests recent studies have shown this preference for an easterly direction cannot be explained purely by functional requirements, for example, avoidance of the prevailing wind, but may result from a desire to enter and leave a building the "correct" way (*i.e.* facing the sunrise).

Although not proven by dateable artefacts, the spatial arrangement of this enclosure, and a group of seven others to the SW, suggests they are contemporary. However, the difficulties in accurately establishing stratigraphical relationships between enclosure ditches with near identical fills should not be underestimated. The two largest enclosures were defined by ditches which had clear evidence for recutting on a least one occasion. However, evidence for recutting and cleaning of ditches is always difficult to detect, so that it is possible that the others were also periodically renewed. Only the entrance to one enclosure (L3) was located. This was situated to the SE and was, therefore, perhaps significantly, not orientated towards the settlement enclosure. The majority of the enclosures did not contain any internal features. Where present these are interpreted as water collection pits.

A number of enclosed settlements in the region are associated with additional enclosures, for example Pennylands (Williams 1993) and Blackthorn (Williams 1974). Within Bedfordshire a number of aerial photographs indicate interlinked sub-rounded enclosures similar in nature to the Hinksley Road settlement, for example at Ravensden (HER 15041) and Great Barford (HER 1630 and 1800). St Joseph (1972) suggested one of

the Great Barford sites represented gradual evolution over a period of time, and included trackways and settlement enclosures. Even on excavated sites, such as Pennylands, without accurate dating or stratigraphical evidence it is often impossible to be certain that settlement activity was contemporary with enclosure ditches. Such activity could simply reflect the repeated occupation of a preferred settlement location.

The shape and entranceway arrangement of L3 is similar to 'Banjo'-type enclosures, so common in other areas of the country, for example Micheldever, Hampshire (Fasham 1987). These are frequently associated with stock control and are relatively rare in this region, although one was investigated at Wavendon Gate (Williams, Hart and Williams 1996).

The meagre animal bone assemblage is of no statistical value. However, it may be noted that cattle, dog and pig bones were recovered from the settlement enclosure, while the other enclosures only produced cattle bones. Environmental evidence from one of the features interpreted as a water pit indicates that although animals were present (as evidenced by the presence of dung beetles) crop processing was also taking place. As already discussed, the significance of the absence of storage pits or 4-post structures is impossible to gauge. The recovery of saddle quern fragments (surprisingly only two) and part of a reaping hook suggest arable cultivation was taking place.

On balance, the non-settlement enclosures are likely to have been for stock, although whether this represents a transition from an arable economy in Phase 2 is impossible to say. It may be that more intensive utilisation of the flood plain or environmental changes made it necessary to keep stock nearer to the settlement.

Within the settlement enclosure small quantities of slag were recovered, in the vicinity of the main roundhouse. A complete hearth base was also recovered from just outside the enclosure. As in Phase 2 it appears small scale metalworking was practised, probably only in the form of smithing to repair and reforge tools. The general styles and types of pottery suggest local manufacture. Ovoid forms still dominate, with a high proportion of heavily built vessels. These have thick sides and occasionally extremely thick bases and may have functioned as storage vessels for dry foodstuffs, such as grain or flour.

Hill (1995) has suggested that deposits containing large artefact assemblages including

different types should be closely studied to assess whether there is any significance to the associations. At Hinksley Road three Iron Age deposits (all from ditches) each contained more than 300 pottery vessels. Two of these deposits were situated within the short ditch lengths of L17 immediately adjacent to the settlement enclosure. Possibly significantly one of these deposits contained part of the curving blade of a reaping hook (the only metal object recovered from the site). The third deposit was situated in a ditch terminal. It is unfortunate that due to the limited nature of the metalwork and animal bone assemblage, Hinksley Road cannot be used to contribute more fully to the debate on rubbish and ritual deposits.

PHASE 4: PRE-"BELGIC" IRON AGE FIELD SYSTEM AND SETTLEMENT SHIFT

The pottery assemblage from this phase is comparable to that of the preceding phases. Although a relatively large assemblage, no vessels possessed the characteristics of wheel manufacture and "Belgic" style decoration. The artefactual dating evidence, once again, can be no more precise than between the 5th and 1st century BC.

In Phase 4 the focus of settlement may have shifted beyond the study area. The only features assigned to this phase are a boundary ditch and associated trackway. This major boundary is aligned on a similar orientation to some of the previously existing enclosure ditches, suggesting some of the elements of the Phase 3 landscape were still visible.

It is uncertain if the pottery recovered from the boundary ditch relates to contemporary activity outside the study area, or is the result of the disturbance of earlier midden deposits.

A number of enclosed settlements are known to continue into the early Roman period, for example Moulton Park. At Hinksley Road the settlement enclosures clearly ceased to function, but the limited extent of the study area make it impossible to determine whether the settlement had been abandoned or had simply shifted in location.

PHASE 5: ROMAN FIELD SYSTEM AND TRACKWAY

The Phase 5 pottery assemblage comprised mainly local coarsewares, but also some imported finewares. These suggest activity commenced in the early 2nd century AD and continued into the 3rd

century AD. More limited activity in the 4th century AD is indicated by the presence of pottery of this date within a well.

During the early Roman period a system of regular fields incorporating a trackway was established on a SW-NE orientation. The trackway was defined by two parallel ditches, which were an integral part of the adjoining field system. When the alignment of the track is projected to the NE, towards the Roman settlement at Ruxox Farm (HER 918), it coincides with two parallel ditches visible as a cropmark and interpreted as a Roman road. It would be unwise to suggest this alignment may form part of the Woburn to Dunton Roman road (HER 5342) proposed by the Viatres (1964). It could, however, represent a local track connecting the Hinksley Road settlement with the major settlement at Ruxox Farm. Such local trackways with associated field systems are common on the first river gravel terrace, for example at Farmoor (Lambrick and Robinson 1979). Although located on aerial photographs they are often proved, by excavation, to be of Roman origin, for example Stanton Harcourt (McGavin 1980). At Farmoor the trackway crossed the gravel terrace to meet the edge of the floodplain and then turned to run along its edge. This arrangement, along with biological evidence, suggested the track functioned mainly as a droveway. The evidence from the study area is insufficient to suggest this may have been the function of the Hinksley Road track.

The trackside ditches were intermittent, being fairly continuous over the W half of the study area and absent over the E. This may suggest that they are also intermittent in other areas. "Local" trackways of this kind may have only been defined by ditches where this was necessary either for drainage, supplying stones for the surface or where it was important to establish a boundary. Simco (1984) has noted abrupt discontinuities in trackside ditches on aerial photographs in respect of the Cople/Willington "road". Similarly the trackway at Broughton (Petchey 1978) did not continue into a recently evaluated area 100m to the E (BCAS 1995b).

It is probable that the ditches running parallel and perpendicular to the trackway were dug at the same time. The visible extent of this system suggests the fields were usually rectangular, but could vary in size. A similar system of fields opening off a central trackway in the Thames Valley, was considered by Miles (1978) to represent the yards, closes and paddocks of an adjacent settlement. At Hinksley

Road, as at Broughton, the nucleus of the settlement may be outside the study area.

Only one of the fields (L16) contained settlement related activity. It may be significant that this activity did not occur in a field adjacent to the trackway. The evidence comprised wells, waterholes, pits, a quarry or pond, a hearth and gravel surfaces. Similar activity is recorded within the fields at Broughton (Petchey 1978). It is not possible to say if this activity was contemporary with the original field system or represents expansion into it. The nature of the activity and the quantity of pottery recovered suggest it represents settlement and not merely seasonal occupation. The original function of pond/quarry G58 is uncertain, but clearly it could have provided clay for pottery manufacture.

The field systems at Broughton were considered by Petchey (1978) to serve different economic purposes. The environmental evidence from Farmoor (Lambrick and Robinson 1979) suggested this system was set in grassland with the larger enclosures functioning as paddocks. Petchey considered the various sizes and shapes of the fields at Broughton to suggest a variety of uses, some paddocks and stockyards, but others small arable fields. Lambrick and Robinson (1979) suggested that the blank areas between clusters of fields might represent the main arable and grassland fields. These could have been unenclosed or enclosed by boundaries which leave no physical trace.

It would be unwise to suggest that the fields attached to the trackway at Hinksley Road had either a single function, or that each was used for different functions. The situation is probably more complex and is likely to have changed over time.

The only evidence for craft activity is a possible quarry that might have produced clay for use in pottery manufacture. Kilns (HER 6743) of early Roman date were located to the NW of the study area and the suitability of the clay is not in doubt. No pottery wasters were identified in the assemblage, although a number of fabrics are presumed to be locally produced. Pottery kilns of 1st and 2nd century AD date are frequently found associated with farmsteads, for example at Warren Villas (Dawson and Maull 1996) and recently excavated within the Biddenham Loop (BCAS in prep).

Roman activity within the study area was mainly of 2nd and 3rd century AD date. Deposits filling well G31, however, contained 4th century AD pottery. These deposits also contained a number of

nails and fragments of brick, roof and flue tile. These suggest the presence of a high status building in the vicinity.

PHASE 6: UNENCLOSED SAXON SETTLEMENT

The presence of Saxon occupation within the study area has been deduced from the recovery of two Anglo-Saxon annular loomweights typologically dated to no later than the end of the 7th century. Only one of the features assigned to this phase can be shown, on stratigraphical grounds, to be late in date.

Evidence for Saxon settlement is limited to one well, one pit and two ditches. The ditches were too small to function as enclosures. Both were perpendicular to the Roman trackway, suggesting it may have survived in some form into this period. This is supported by the presence of a loomweight in the upper fill of one of its ditches. The presence of a well (on the limit of the excavated area) suggests domestic occupation in the vicinity. On some dispersed settlements like Hartigans wells and buildings could be separated by 150m. At both Pennylands and Hartigans it was difficult to define both the settlement pattern and even the limits of the settlements (Williams 1993).

Williams (1993) has noted that, when the local geology permits, wells (as either the main source of water or as a supplement to surface collection) are commonplace on Saxon settlements. The method of construction usually utilised upright stakes with interwoven wattle, as for example at Stratton, Biggleswade (BCAS in prep).

The presence of waterlogged seeds of cultivated plants within the well should be treated with caution, as this feature truncates a Roman ditch and therefore could contain residual material.

The only evidence for traded items is the granite quernstone from the well, although this may be residual from Roman deposits. There is, however, some evidence for on-site textile working. The presence of two examples of the ubiquitous annular clay loomweights testifies to textile production probably at the family level. Two leather fragments from the well exhibit knife cut edges suggesting they are manufacturing waste. Again, these fragments may be residual from Roman deposits. Limited quantities of slag suggest small scale smithing may have been undertaken, although no hearths or furnace bottoms were located. The local clay is known to be suitable for pottery manufacture

in the Roman period and could have been utilised during this period.

SUMMARY

Despite the study area being situated adjacent to a presumed Bronze Age double ring ditch, the earliest settlement was established in the Iron Age. Three phases of pre-"Belgic" settlement were identified and a sizeable ceramic assemblage recovered. However, in the absence of a more precise chronology for the pottery fabrics of this period, it is unfortunately impossible to determine the longevity of individual phases. Nor can they be assigned a more precise date than the second half of the first millennium BC. The settlement was initially open but later enclosed. The latter included a domestic enclosure and a system of linked animal corrals, suggesting a pastoralist economy during this phase.

No evidence for "Belgic" Iron Age activity was recovered. It is uncertain whether the site was abandoned in favour of the large, valley bottom, settlement at Ruxox Farm or whether occupation simply shifted beyond the limits of the study area. Activity recommenced in the 2nd century AD, apparently peripheral to a settlement situated to the W of the study area. A trackway provided access to the valley bottom at Ruxox Farm. Limited evidence was identified for a Saxon period settlement.

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A note on an Iron Age and Roman site at Wigmore Valley Park, Luton

REN HUDSPITH

INTRODUCTION

During the Spring of 1997 Luton Borough Council had an anti-traveller trench dug in Wigmore Valley Park (TL 12 21) alongside the airport emergency access road at the eastern edge of the park. The trench was c.1m in depth and 0.6m wide. Evaluation of the spoil heaps, by the writer, indicated several archaeological features had been disturbed along the line of the trench, with finds of neolithic-Bronze Age flintwork, Iron Age, Romano-British and medieval sherds. Permission for further limited archaeological assessment by the Luton Archaeological Group was obtained through Dr R Holgate, Curator at Luton Museum, and Mr B Clarke, the Parks Manager.

ASSESSMENT

The site is on a clay with flints covered ridge to the east of Luton at c.147 OD (Fig 1). The probable location of a substantial Roman building has been identified in an adjacent field c.200m further east (the Century Park proposed development area) and known findspots of Romano-British material occur at c.1.5km intervals along the ridge. Various features were observed along the trench and were measured from the southern hedgeline (Table 1). Some of these also show on aerial photographs. Of note among the features are the double ditches (F1 and F2) which contained late Iron Age and Romano-British sherds and appear to have been recut along the same line in the medieval period, an undulating dark brown clay layer (F710 and F13) containing no finds which may be a feature of cultivation or a "wandering" trackway and two linear scatters, or surfaces, of flint and Roman tile (F3 and F8) adjacent to and underlying the modern road, both visible in section. The northernmost scatter (F8) contained a 2-10cm deep "occupation" layer of black soil with sherds, charcoal, nails, reused hypocaust and flue tiles, a glass bead and metalworking fragments, perhaps suggesting a workshop. A bronze follis of Licinius (c.AD316) was found at 0.3m below the surface in the west side of the trench and fragments of an early 4th century bowl recovered from the adjacent spoil heap. An iron "bloom" and other rusted objects found

scattered across the spoil heap may indicate iron working activity. Other finds included quern stone fragments, a jar base holed for use as a loomweight and a fragment of repaired samian. The flint and tile surfaces (if not evidence for collapsed walls or cart rut fill) may have served as building platforms. Late Iron Age pottery was found in a shallow feature (F7) and on the spoil heaps in the area between the two flint and tile surfaces. Other finds of Romano-British pottery suggest a date range for occupation at the site between the 1st and 4th centuries.

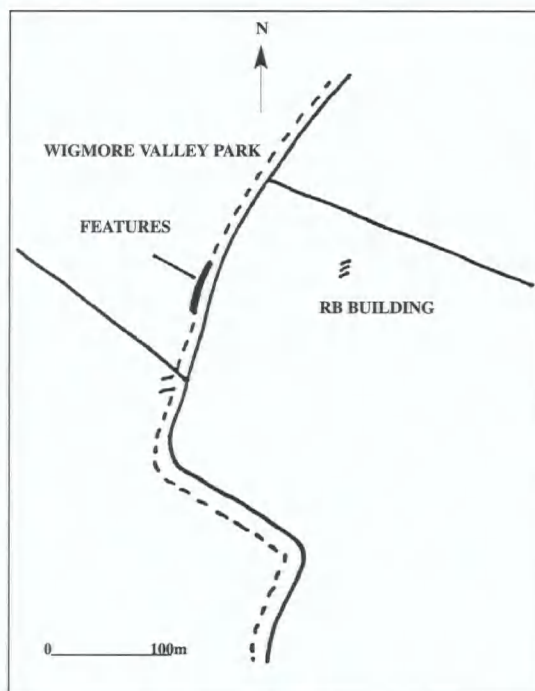


Figure 1

Distance from southern hedgeline	West Section	East Section	Spoil Heap
53-56m (F1 and F2)	Double ditch, brown clay at 0.3-1m below surface. IA and RB sherds.		IA, RB and Medieval sherds
69-74m (F10)	Undulating brown clay layer on chalk at 0.4-0.7m below surface.		
68-70m (F4)		Ditch? at 0.3-1m below surface. Brown fill and RB tile.	
71-72m (F3)	Stone line at 0.3m below surface.		
71-75m (F3)		Flint and RB tile surface at 0.3m below surface.	
74-77m (F?11)	Compacted flint in orange clay "gully" at 0.2-0.7m below surface.		
77-78m (F?12)	Yellow/brown clay mound (no flint) at 0.4-0.6m below surface.		
78-80m (F?13)	Undulating brown clay layer on chalk 0.4-0.6m below surface.		
81-84m (F5)	Ditch? with brown fill 0.4-1m below surface.		
86-88m (F6)	Ditch? with brown fill 0.3-0.8m below surface.		
90m			N/BA flints, IA sherds
94-95m			IA and RB sherds
95-96m (F7)	Ditch? with brown fill 0.3-0.7m below surface. IA sherds.		
97-107m			IA and RB sherds.
101m	4th century coin (Licinius)		Iron objects/bone.
101-107m (F8)		Flints and RB tile at 0.3m below surface. Occupation layer.	
105-107m (F9)	Large flints and RB sherds on chalk at 0.3-0.5m below surface.		

Table 1 Location of Features and Finds at Wigmore Valley Park 1997

Early Roman activity at Keeley Lane, Wootton

JOSHUA POLLARD and PATRICIA BAKER

SUMMARY

The discovery of several sherds of Roman pottery in a garden at Keeley Lane, Wootton – an area with little known evidence of Roman activity – led to a small test excavation. This produced a substantial assemblage of 1st century pottery in association with contemporary features.

INTRODUCTION

Following the discovery of Roman pottery from upcast soil derived from the digging of foundations for an extension at 2 Keeley Lane, Wootton, a limited excavation was undertaken in the front garden of the property during July 1995 (Fig 1). The excavation was designed to test if the sherds represented on-site activity, or whether they had been brought in with introduced topsoil at a recent date; the apparent absence of Roman occupation in the environs of Wootton (Simco 1984) making the later seem quite likely. Despite the limited extent of the excavation (a test pit 3.0 x 1.5m), settlement related features were discovered, along with a substantial assemblage of 1st century pottery.

LOCATION AND GEOLOGY

The site is located towards the north of Wootton, immediately to the west of the junction between Bedford Road and Keeley Lane (TL 00854611). The drift geology comprises localised pockets of yellow-orange calcareous valley gravel overlying boulder clay.

EXCAVATION RESULTS

Four features were revealed, cut into the gravel natural, following the removal of the topsoil and a 0.3m thick earlier garden soil. Of these, one (F.3) was a pipe trench of recent date. The remaining three are all considered Roman on the basis of the finds they contained and the degree of structural respect they display in relation to each other. The most prominent of these is a NW-SE aligned ditch, F.2, partly disturbed by the digging of the pipe trench. 1.1m wide and 0.4m deep, the ditch was filled with a very dark grey-brown silty clay, paler in its basal 0.1m. Following the formation of the weathered primary silts, a substantial quantity of pottery (including fragmented though near-

complete vessels) and lesser amounts of animal bone and fired clay, had been deposited in the ditch. Many of the sherds were found in 'nested' groups corresponding to parts of single vessels, indicating primary deposition, perhaps from a building or activity area nearby.

Of the other features, the pit or ditch-butt F.1 was only partly excavated (to a depth of 1.0m below ground surface). Vertical-sided in its lower profile, it was filled with a grey-brown silty clay containing a limited quantity of Roman pottery, bone and a fragment of *tegula*. That the southern edge of this feature runs parallel with the northern edge of F.2 suggests relative contemporaneity. To the south of F.2, running at a right-angle to it and butting close to its south edge, was a shallow ditch or gully, F.4. This was filled with a dark grey-brown silty clay loam with charcoal flecks. A small amount of Roman pottery, including a fragment of colour-coat, and a piece of mortar were recovered from its fill.

Numerous sherds of 1st to 3rd/4th century pottery (including two pieces of Nene Valley colour coat) and a piece of scored box tile came from the overlying garden soils.

THE FINDS

The detailed discussion of finds relates only to material from ditch F.2.

POTTERY

Despite the limited extent of its excavation, a staggering 399 sherds (8,601g) of mid-late 1st century pottery were recovered from the fill of F.2. With a very few exceptions, all the sherds are in a fresh condition and had not been subjected to weathering or other post-depositional processes prior to incorporation in the ditch. A few vessels exhibit surface spalling consistent with heat damage, though this appears to have occurred during use rather than following deposition. All the vessels were apparently deposited as a single event, and therefore represent a contemporaneous and largely uncontaminated assemblage.

The sherds were sorted into basic fabric groups, and minimum numbers of vessels estimated on the basis of differences in rims and fabric (Table 1).

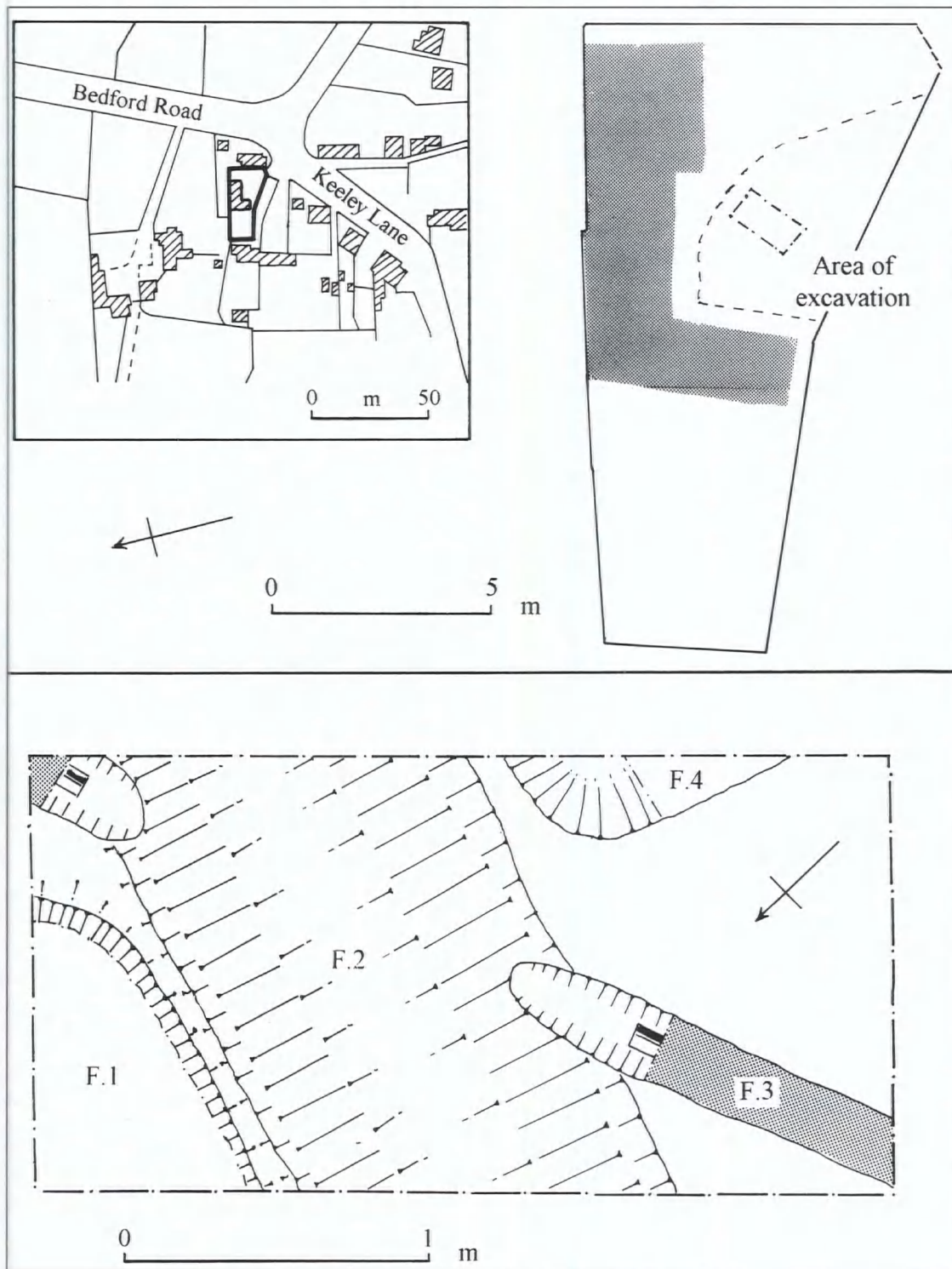


Figure 1 Keeley Lane. Site location and plan of excavated features

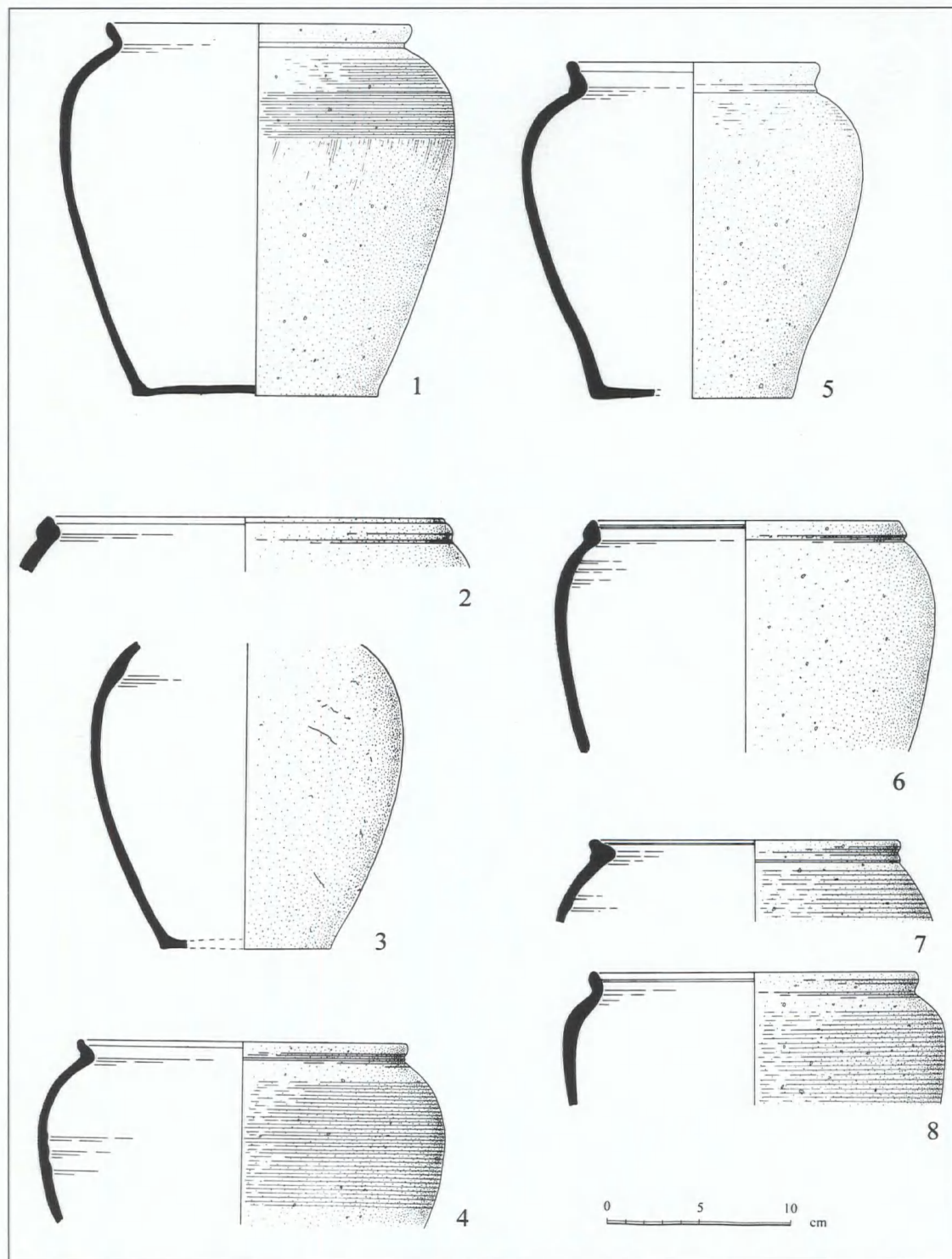


Figure 2 Pottery from F.2

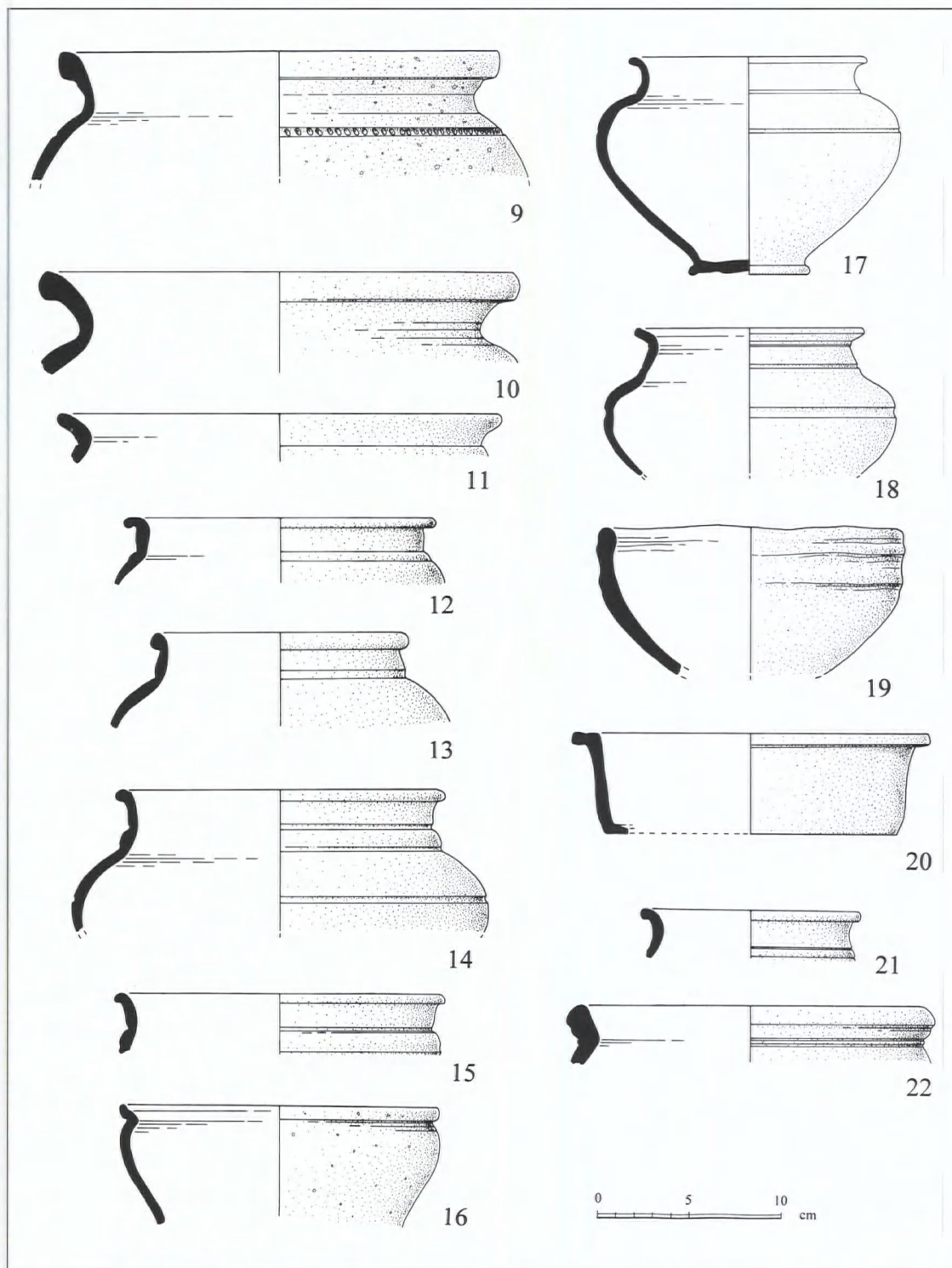


Figure 3 Pottery from F.2

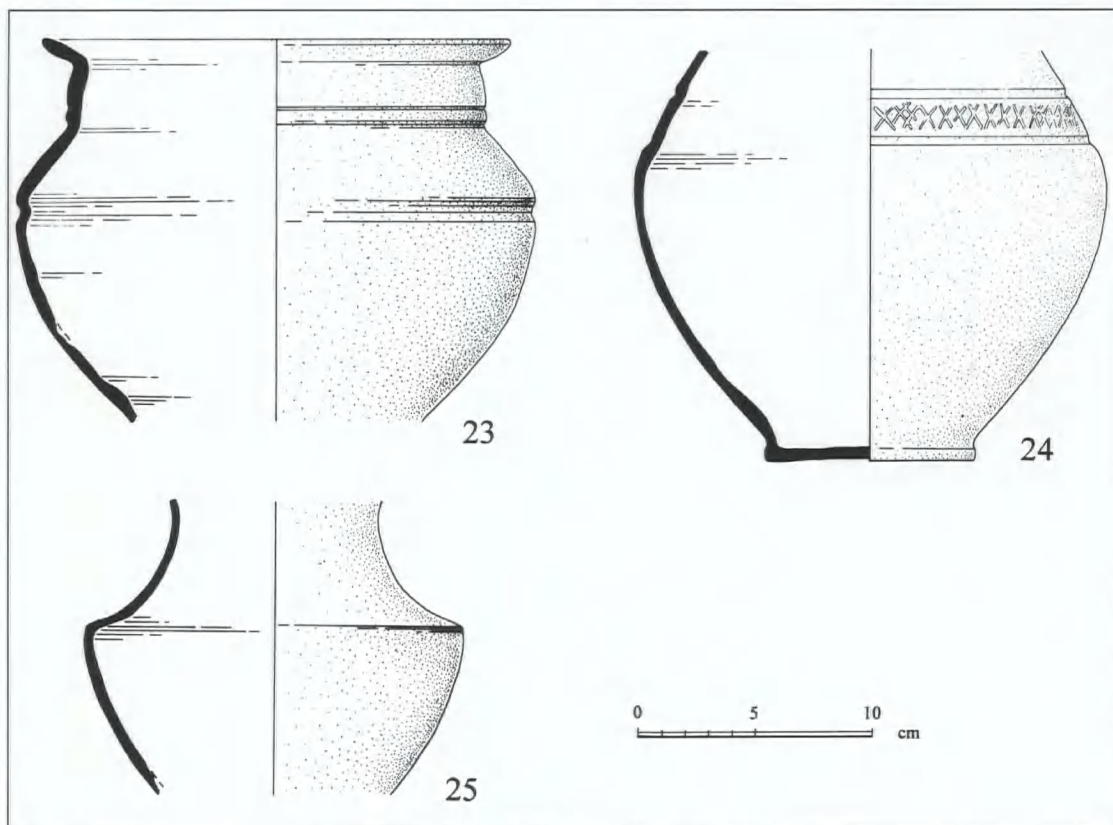


Figure 4 Pottery from F.2

Parts of between 40-50 individual vessels are represented, many by substantial joining fragments (Figs 2-4). Most of the pottery was probably made locally, the combination of fossil shell, grog and sand fabrics being characteristic of the region (Marney 1989). Typically for the period and region (Tyers 1996, 64), the assemblage is dominated by jars, (including large storage vessels, closed medium size vessels and open bowl forms), along with bowls and beakers. In this respect the assemblage is predominantly of a late Iron Age tradition, with characteristic Roman forms such as flagons, jugs, cups and mortaria being notably absent. The implication is of the persistence of Iron Age culinary practices.

Medium-sized 'channel-rim' or 'lid-seated' jars in a shelly fabric are the most common vessel form, around ten being represented (1, 2, 4-8). Though not necessarily from a single production centre, these are identical in form and fabric to the shelly wares from the kilns at Harrold in north Bedfordshire (Brown 1994). Evidently used as cooking

vessels, many of the jars have traces of sooting around the rim and upper body, and occasionally over the lower body and parts of the interior. The larger jars (9-11), which include at least one Belgic combed decorated form (not illustrated), were probably used as storage vessels.

A number of other Belgic/Gallo-Belgic forms are present, such as cordoned jars and bowls (12, 14, 15), a simple coil-built burnished bowl (19), and fragments of globular beaker (21), carinated beaker (25) and butt beaker (22). These are predominantly in grog tempered fabrics. There are three vessels in a distinctive fine sand, black slipped, Terra Nigra fabric, though probably copies rather than Continental imports (23, 24). In addition to the illustrated vessels there is a sherd from a *Cam* 58 flanged bowl or cup in the same fabric (cf. Hawkes & Hull 1947, pl. LIII). Non-Belgic finewares are poorly represented, there being seven sherds from a poppy-head beaker and a single sherd of South Gaulish samian (part of a base from a Dr 18 plate).

Fabric Group	MNV	No. of Sherds	Weight (g.)
1 Shell	8	150	3743
2 Shell & sand	1	5	214
3 Shell & grog	2	30	1195
4 Shell, sand & grog	2	4	181
5 Medium sand	8	30	404
6 Fine sand	5	75	824
7 Sand & grog	7	72	1257
8 Grog	4	24	745
9 Misc. fineware	3	9	38

Table 1 Composition of the pottery assemblage from F.2, according to fabric (MNV = Minimum Number of Vessels)

Channel-rim and related jars

- 1 Fabric 1. Dark reddish grey-brown exterior and interior. Sooting. Horizontal rilling on shoulder. 90% complete.
- 2 Fabric 4. Reddish-orange exterior and interior, grey core.
- 3 Fabric 7. Orange-buff exterior and interior, grey core. Sooting.
- 4 Fabric 1. Dark grey to buff exterior, reddish-brown interior. Sooting. Horizontal rilling on shoulder.
- 5 Fabric 1. Buff to dark grey-brown exterior, reddish brown interior. Sooting. Horizontal rilling on shoulder. 50% complete.
- 6 Fabric 2. Dark grey-brown exterior, reddish-brown to brown interior, ill-defined grey core. Sooting.
- 7 Fabric 1. Dark grey-brown exterior, buff interior. Sooting. Horizontal rilling on shoulder.
- 8 Fabric 1. Dark grey-brown exterior, buff interior. Sooting. Horizontal rilling on shoulder.

Other jar forms

- 9 Fabric 1. Buff to brick red exterior and interior, pale grey-brown core. Large shell temper. Decorated on the shoulder with a single band of stab marks within a groove.
- 10 Fabric 4. Reddish-brown exterior and interior, dark grey core.
- 11 Fabric 5. Brown to reddish-brown exterior and interior, grey core.
- 12 Fabric 7. Grey throughout.
- 13 Fabric 5. Buff exterior, grey-brown interior, dark grey core.
- 14 Fabric 3. Dark grey-brown exterior and interior, core pale orange-brown/grey/pale orange-brown sandwich.
- 15 Fabric 6. Grey-brown exterior and interior, core orange-buff/grey/orange-buff sandwich.

- 23 Fabric 6. Slightly burnished very dark grey exterior and interior, core pale grey-brown/grey/pale grey-brown sandwich. Jar or beaker.
- 24 Fabric 6. Very dark grey exterior and interior, core pale grey-brown/grey/pale grey-brown sandwich. Decorated with an enclosed band of faint grooved lattice. Jar or globular beaker.

Bowls/bowl form jars

- 16 Fabric 1. Dark grey-brown exterior, pinkish-brown interior, grey core. Channel-rim bowl.
- 17 Fabric 7. Grey core and exterior, grey-buff interior. 60-70% complete.
- 18 Fabric 7. Grey throughout.
- 19 Fabric 8. Burnished black exterior, grey core, pale grey-brown rough interior. Coil-built. 50% complete.
- 20 Fabric 5. Pale orange-buff exterior and interior, grey core. Straight-sided bowl with reeded rim. Form *Cam 41*.

Beakers

- 21 Fabric 8. Burnished brown exterior and interior, grey core. Globular/ovoid beaker.
- 22 Fabric 7. Grey-brown exterior, dark grey-brown interior, dark grey core. Butt beaker.
- 25 Fabric 6. Grey-brown exterior and interior, core orange-buff/grey/orange-buff sandwich. Carinated beaker, possibly pedestal form *Cam 74*.

BAKED CLAY

The baked clay weighs 1312g in total. It is all in an organic (chaff/grass) tempered fabric, often with a light orange hue on the exterior with a slightly darker orange to dark grey core.

The identifiable fragments include oven plates (some perforated) and a bar. The plates have

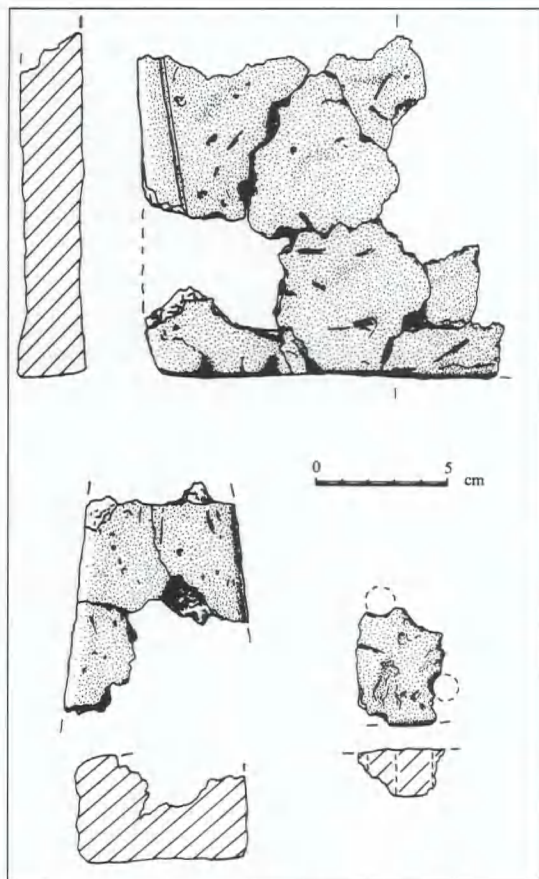


Figure 5 Baked clay from F.2

smoothed oxidised upper surfaces and rough under sides. One plate is partially reconstructed (Fig 5a). In its original form it was over 13.0 cm in width, and 14.0 cm in length, with a thickness of 2.0 cm. The upper surface is pock-marked with voids left by grass and vegetable matter that was not carbonised in the firing. Similar clay plates have been found at Baldock, Hertfordshire, ranging from 1.5-3.0 cm in thickness and 9.0-11.0 cm in length (Rigby & Foster, in Stead & Rigby 1986, 185-88, Fig 81 nos 818-23). These examples of plates have finger smoothed upper surfaces and rough bottom surfaces. They were found with pre-Flavian pottery and suggest dates from the pre-or post-conquest period. They seem to be used for furnaces, kilns or ovens rather than as building materials, as they do not have any traces of mortar or cement, comparable to those from Keeley Lane (Rigby & Foster, in Stead and Rigby 1986, 185-88). Other clay plates from the area were found at the pottery

and tile manufacturing site of Harrold, Bedfordshire (Brown 1994, 90, Fig 92 nos 8-10). All have smoothed top surfaces and rough undersurfaces. They are also of an orange hue. These are suggested to have been used as liners for the interior of the kiln (Brown 1994, 90).

Fragments of a clay bar were also found at Keeley Lane (Fig 5b). It measures 6.0 cm in width, over 10.0 cm in length and 6.5 cm in thickness. The colouring and matrix are the same as the plate fragments. Similar bars have been found at Harrold (Brown 1994, 90, Fig 49 nos 5-7). They have roughly made edges and are similar in shape and size to the bar from Keeley Lane. These are suggested to be kiln furniture.

A third fragment is that of a plate perforated with two circular punctures (Fig 5c). The perforations might have been used for vents in clay oven floors and similar plates are often found at Iron Age sites. Suggestions for other uses of perforated clay plates have also been made, such as stacking devices for baking bread or drying grain (Dawson 1988, 18-19).

None of the baked clay shows signs of being subjected to extreme temperatures, tending to suggest that they were parts of domestic ovens, another indication being the presence of the possible stacking slab.

ANIMAL BONE

990g of animal bone were recovered from F.2. Identified fragments are principally of sheep/goat. Bones of cattle and domestic fowl are also present. It is interesting to note that jaw bones are particularly well represented. From these a minimum of six sheep/goats (two mature, four immature/juvenile) can be identified, and two cattle (mature and immature). Elements from the axial skeleton and hind limbs are largely lacking. Most bones are in fresh condition, and only one shows signs of dog gnawing. The representation of species is typical for early Roman sites in this area, with domestic species such as sheep, goat and cattle being predominant.

WORKED FLINT

Amongst the remaining finds from F.2 are nine pieces of struck flint (five flakes, three shatter fragments and one flaked piece). All are in extremely fresh condition and, significantly, are unlikely to be residual. They have been crudely worked, the flakes being squat and irregular in form and displaying characteristics such as double bulbs of percussion and incipient impact cones. Condition and the lack of skill exhibited in their

working – consistent with production by someone unfamiliar with flint knapping – could be taken as argument for their being of early Roman date (contemporary with the pottery and bone assemblages), and simply representing *ad hoc* utilisation.

DISCUSSION

The most surprising feature of the excavation was the sheer quantity of material (particularly pottery) recovered, most of it coming from the 1.5m section of ditch F.2. The pottery, along with baked clay and bone, seems to have been deposited as a single event, many of the vessels entering the ditch in a near complete, though fragmentary, state. This begs us to question why so much material should be deposited as a simultaneous act. As a one-off event, numerous explanations could be given: the disposal of refuse from a feasting event; the possible demolition of a building and the clearing out of material stored within it; the change to new (Romanised) culinary practices with the consequent disposal of old (essentially Iron Age) cooking equipment; or the ritual destruction of personal property following the death of an individual. Whatever explanation is favoured, such action was clearly not unique to the site. Similar single-event deposits of substantially complete pots in ditches are recorded at other late Iron Age and early Roman sites in the region. At the Ursula Taylor Lower School, Clapham, almost 60 vessels were found in two joining ditches, the majority of sherds from each vessel being found together (Dawson 1988, 10). Comparable ditch deposits are also known from 1st to early 2nd century sites in Milton Keynes (e.g. MK345: Marney 1989, 12-16), and at Baldock (Stead & Rigby 1986, 258). Stead and Rigby have noted an interesting sequence in the context of the deposition of complete (not necessarily intact) pots at Baldock; in the early period (1st century) mostly being deposited in ditches and gullies, and in the later (late 1st to late 3rd) into wells (Stead & Rigby 1986, 258). They suggest that “since the ‘complete’ pots occur in groups rather than individually, at least some may have been part of ritual sealing deposits or may indicate that the features in which they occurred had a ritual aspect” (Stead & Rigby 1986, 258). Some of the smaller collections of vessels (2-8 pots) at Baldock resemble burial groups (Stead & Rigby 1986, 258). Related to earlier traditions of ‘structured deposition’ in enclosure ditches (Hill 1995), such deposits were perhaps associated with rites surrounding major social transitions, which might include funerary rituals.

Whilst specific interpretations might be offered on the process of pottery deposition, the limited extent of the excavation precludes any detailed statement on the character or extent of the site. The range of artefactual material is consistent with domestic activity, and the presence of ditches/gullies entirely typical of a late Iron Age – Roman rural settlement in the region. The pottery assemblage (though only a small sample) displays many late Iron Age characteristics, suggesting only a marginal degree of Romanisation.

The survival of Roman features within such a built-up area, which has suffered extensive disturbance from post-Medieval building and land allotment, is itself surprising, and was especially so since little Roman activity is recorded from the environs of Wootton. No find spots of Roman material are given in Simco (1984, map C), the nearest major concentration of contemporary settlement being c. 2km to the north-east around Kempston. Kennett does, however, record early Roman pottery from Canon's Close, Wootton, perhaps deriving from a burial (Kennett 1970, 126). There clearly exists much potential for further fieldwork in the area.

ACKNOWLEDGEMENTS

Thanks are due to the then owners of 2 Keeley Lane, Mark and Saskia Dart. Alan Williams kindly provided practical assistance for the post-excavation work. Thanks are also due to Kevin Greene and Ruth Charles for commenting on the pottery and animal bone respectively. The pottery and other finds will be deposited in Bedford Museum.

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Chellington Field Survey

ANTHONY BROWN AND CHRISTOPHER TAYLOR

SUMMARY

Three deserted earthwork settlements and their associated trackway systems were surveyed, and the whole of the available arable area systematically fieldwalked. The collation of this evidence suggests a landscape which underwent change slowly from the late Iron Age onwards, with considerable stability in the general pattern of settlement and a trackway system which is probably prehistoric in origin.

INTRODUCTION

The parish of Carlton and Chellington lies on the southern side of the River Ouse, opposite the villages of Harrold and Odell. This paper is concerned only with the eastern, Chellington, portion of the parish, which was the subject of earthwork surveys by the authors during the period 1980-81, and detailed fieldwalking by one of us (AEB) during 1988-90, on both occasions with the assistance of students of the Department of Adult Education of the University of Leicester. It is divided into three parts: an assessment of the earthwork field evidence, a description of the fieldwalking results, and finally an attempt to pull the various strands of evidence together to assess the contribution Chellington might make to the landscape history of this part of Bedfordshire.

HISTORICAL AND TOPOGRAPHICAL

BACKGROUND (Figs 1 and 3)

The parish of Carlton and Chellington has a very complicated settlement pattern. The western, Carlton, part of it has an isolated church, a rather straggling settlement known as Carlton, that part of it lying close to and along the road running due south from Harrold Bridge being known as Bridge End; and a scatter of farms, at least one of them, the moated site of Carlton Hall Farm, undoubtedly on an ancient site. In the eastern, Chellington, part of the parish, settlement consists of a row of houses set along the eastern side of the road from the bridge, opposite Carlton Bridge End; this is the place which today is thought of as the village of Chellington. There is also an isolated church and a farm close to it, known as Hill Farm.

There is no doubt that in medieval times Carlton and Chellington were two separate parishes. Their tenorial history was also different until 1359-60, when the Trailly family, lords of Chellington, obtained one of the manors of Carlton. This manor carried with it the right of presentation to the church of Carlton, and so the advowson of both churches came to be vested in the same family; the two rectories were consolidated by Act of Parliament in 1769 (VCH 1912, 49-56). The civil parish of Carlton and Chellington was formed under the North Bedfordshire Review Order of 1934 (Kelly's Directory 1940, 85)

Chellington was always the smaller of the two places and as early as 1279 was being described as a hamlet of Carlton (Thompson 1990, 55). Post-medieval sources show that the boundary between the two townships was not known with certainty. A boundary is shown on a pre-enclosure map of 1798 but is not the same as that given on the Enclosure Map of 1806 which was fixed by the Enclosure Commissioners (Beds. CRO: X 1/79, MA 51). The doubt over the boundaries was of long standing, for a glebe terrier of 1710, while noting that the tithes of Chellington were separate from those of Carlton, found it necessary to give 'an account what homes and families belong to Chellington parish for Carlton and Chellington are so intermingled that no stranger can possibly imagine it should be so' (Beds. CRO: ABE 2). This confusion is easy to understand when it is appreciated just how often farms came to have land in both townships; it is possible that the two townships were being operated together as one field system in the 18th century (Beds. CRO: GA 1023, 1212, 321, 328, 1124 (1-15), Jeays 339; also Linnell 1950, 101).

This field survey has shown just how complicated the settlement history of the Chellington part of the parish is. In addition to the present village of Chellington, there were three quite separate settlements in other places in the parish, all of which are now deserted.

EARTHWORK SURVEY (Fig 2)

The three deserted settlements, their associated road system and adjacent ridge and furrow occupy a long

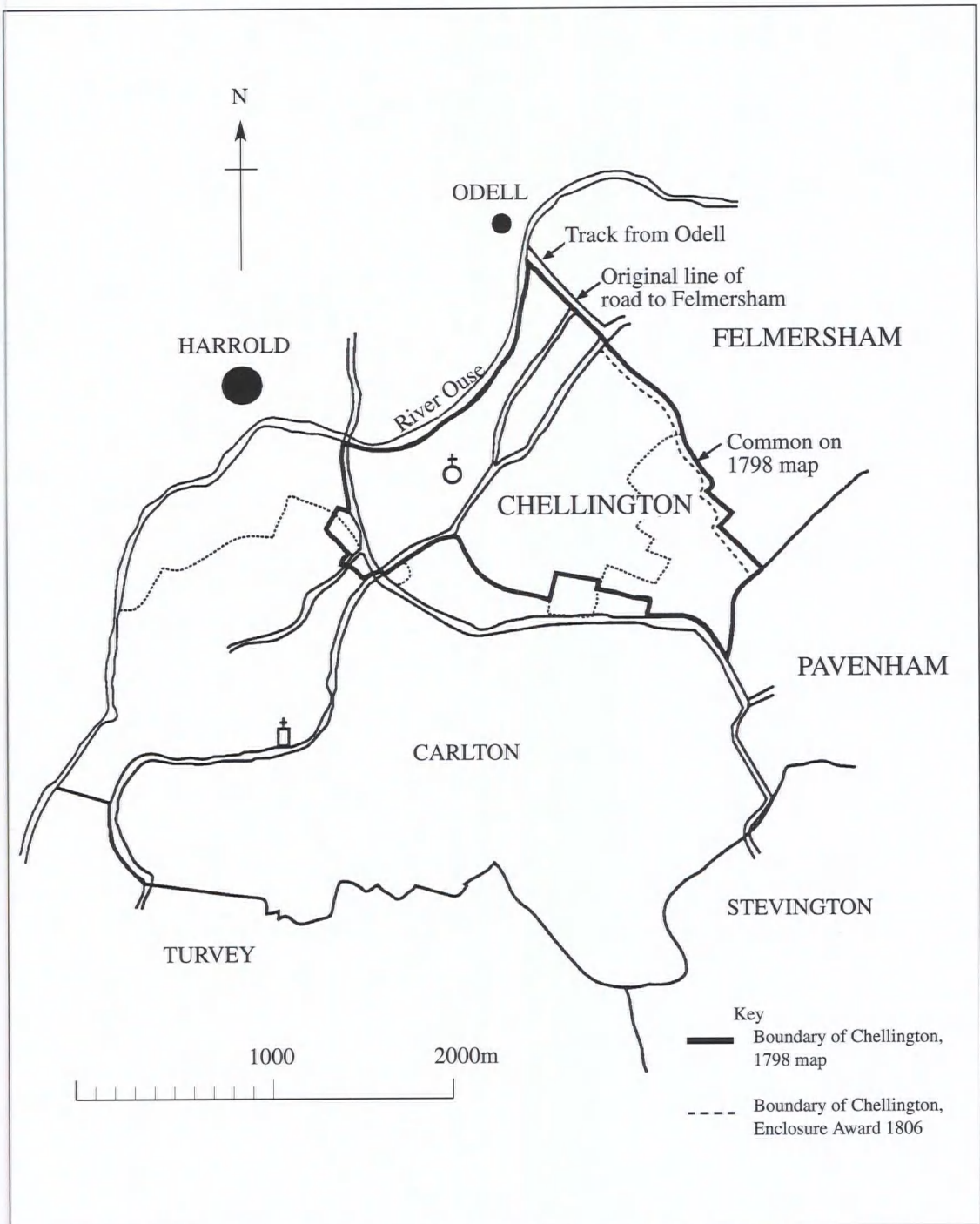


Figure 1 Carlton and Chellington: parish boundaries and road system

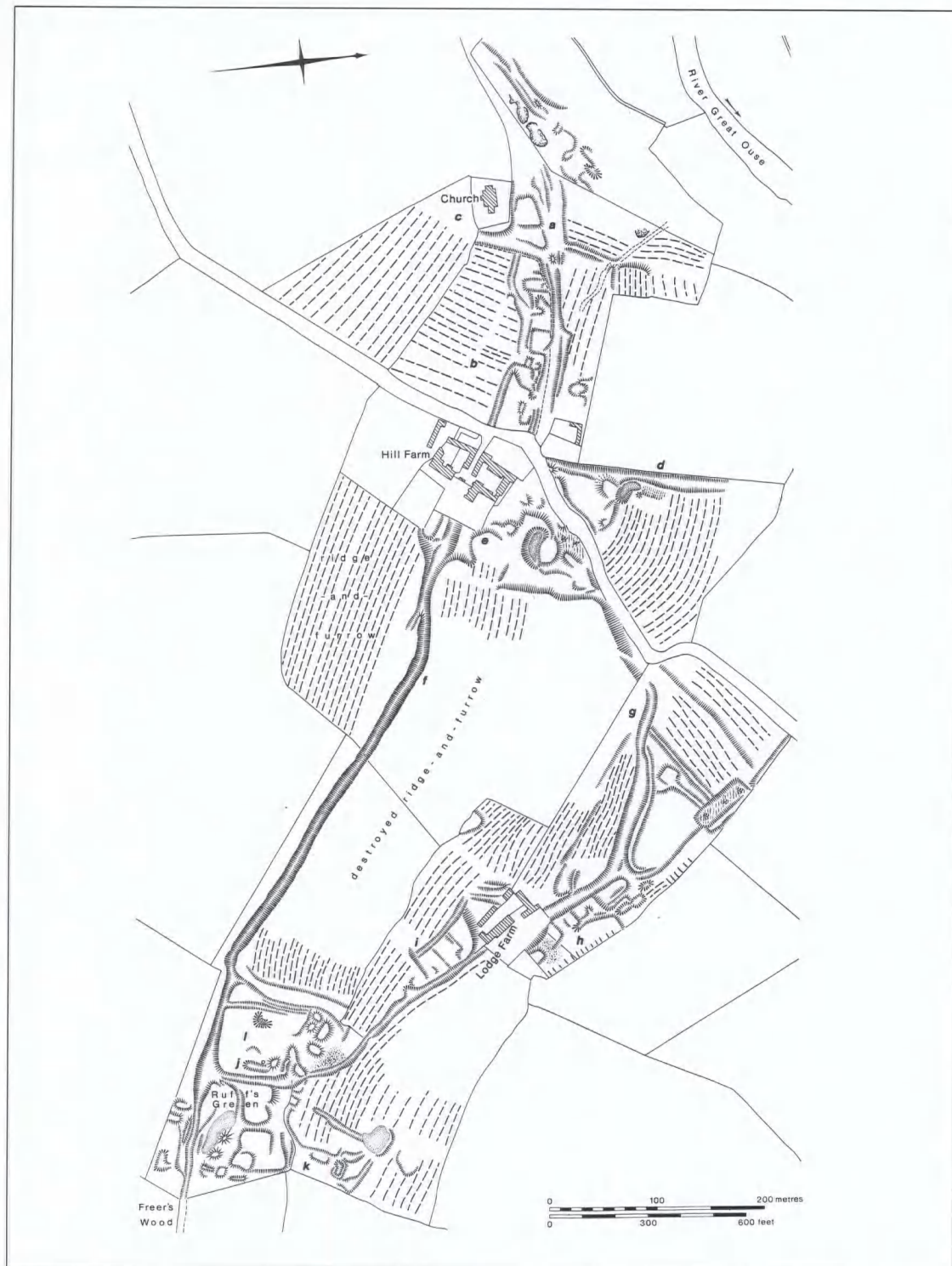


Figure 2 Chellington: earthworks

narrow strip of land in the centre of Chellington parish which is still largely grassland. It extends from the river cliff, near the now isolated Chellington church SE as far as the NW edge of Freers Wood. This area coincides almost exactly with that of Old Enclosures shown on the Enclosure Map of 1806. In the description which follows, comparison will be made between the earthwork remains and the landscape shown on the pre-enclosure map of 1798. The earthworks were planned by a tape survey using baseline and offsets, including the ridge and furrow.

CHELLINGTON CHURCH SETTLEMENT

The remains lie mainly between the isolated Chellington church and the existing Hill Farm to the E together with other earthworks N and E of the farm. In the area between the church and the farm the most obvious feature is a broad shallow hollow-way (a) running roughly E-W from the present road to a point just N of the church, where its line is continued by a wide hedged track leading E-W down the river cliff. The land immediately N of the hollow-way is covered by fairly low ridge and furrow. In the N E block the ridges run roughly NNW-ESE and run out on to the hollow-way itself. On the 1798 map most of this area was within an enclosed field called 'Glebe' though it is clear that the ridges extended beyond the irregular W end of this field for the line of the old hedge still survives cutting through the ridges. The W end of the ridges and most of the other blocks of ridge and furrow to the NW lay in 1798 in an open area called Midsummer Ground (Common) which was not part of the common fields at that time. However, one block of E-W ridge and furrow appears to relate to the southernmost strips in the furlong then called Behind Morgans.

On the S side of the hollow way are the mutilated but clearly identifiable remains of former buildings, consisting of a series of sub-rectangular platforms. To the rear of these platforms is a shallow sinuous ditch with ridge and furrow beyond. This ridge and furrow is, especially near the settlement remains, much damaged and there is a later headland a few metres to the S. Though most of the ridges are aligned through this headland, at least four are not and it thus appears that two stages of cultivation are represented; i.e. initially all the land was ploughed between the existing hedge and the settlement boundary ditch to the N. Later on the ridges were shortened by the insertion of a headland (b) to the S of the settlement, and the old ridges reploughed,

some on a new alignment. The land between the new headland and the settlement may have been incorporated into the settlement area. The 1798 map shows yet a third stage. Most of the settlement had gone and the ridge and furrow behind it was at that time divided into two enclosed paddocks called Watts Close and Knells Close. Between the two closes was a narrow strip of land, at the N end of which, lying parallel to the hollow way, was a single building. To the S of this strip were two small rectangular open field strips whose overall length was only between 30 and 40m.

The hollow way itself is shown on the 1798 map as part of a through road which left the present Harrold-Carlton road at the S end of the bridge over the River Ouse at Harrold and ran up the valley side and through the Midsummer Ground Common. Just before it reached the church, a side road ran S and then turned round the SW corner of the churchyard. No trace of this exists on the ground. On the S side of the churchyard it met another side-road (c) running S from the through road between the E side of the churchyard and Watts Close. This does survive as a broad shallow hollow way. The combined road then ran S roughly along the modern track to the church until it met the present road from Carlton.

The through road continued E passing along what is the main village hollow way until it met the modern road. Here, and immediately W of the present Hill Farm, was a major road junction. The existing road formed part of this junction with the extension of the village hollow way crossing it and then bending SE to pass through the area where the present farm now stands. Another road (d) ran NNE as the then road to Felmersham. This latter road still remains as a hollow way for some 200m before it disappears into modern arable. On its E side is a block of ridge and furrow which in 1798 was part of an old enclosure with, to the S of it, a small triangular area set in the angle between the hollow way and the present road. This area was another small paddock in 1798.

The area to the N and E of the present Hill Farm has extensive if incoherent earthworks. NE of the farm and SE of the present road is a large pond and numerous banks and scarps (e), separated from the adjacent ridge and furrow to the E by a large scarp except on the S. Here a secondary headland exists with traces of earlier ridge and furrow running on for a few metres towards the settlement area. The earthworks by themselves cannot be interpreted, though they suggest some form of occupation.

However, on the 1798 map four buildings are shown in this area, two probable houses along the modern road, a long block along the road running ESE and two buildings to the SW and NW of the pond. No garden closes are shown around these buildings. The site of the present Hill Farm is shown as occupied by what appears to be a group of farm buildings and a presumed farm house, the latter parallel to the through road. This through road has been completely destroyed by the present farm, but immediately SE of the garden there, a massive hollow-way up to 3m deep appears and runs SE (f). At this point the hollow way has subsidiary depressions and scarps on either side of it and those on the S appear where either one or both of two buildings shown on the 1798 map lay.

Though extensive, these earthworks were in poor condition, but they have a number of points of special interest. First, the fact that the earthworks are in this condition is a reflection of the late and gradual decay of the village. It has become obvious from examination of deserted villages over many parts of the Midlands that those villages with well preserved house sites and clear layouts tend to have been abandoned in the late medieval period. The more recently abandoned settlements are characterised by incoherent earthworks resulting from the demolition of stone and brick buildings rather than the slow decay of stone or timber ones. The evidence of the 1798 map suggests this at Chellington, where a number of houses appear to have survived into the 19th century.

Secondly, even where the house sites are reasonably well preserved, as on the S side of the main hollow way E of the church, there are in fact only house sites and relatively small tofts. There is no indication of long crofts behind the houses which is the normal pattern in the Midlands. What this means is unknown though it may be a reflection of the unplanned gradual development of settlement as opposed to corporate or individual planning.

A third feature worth commenting on is the lack of house sites on the N side of the main hollow way to the E of the church. It is possible that there were once houses there which have been destroyed by the subsequent ridge and furrow. Excavation could confirm or deny this. However, such a 'one-side' settlement is not unique and a number have been recognized in Northamptonshire e.g. Mallows Cotton in Raunds parish and Braunston Cleves in Braunston (RCHM(E) 1975, 81; 1981, 23)

As noted above, in 1798 two roads ran NE and SE from the road junction W of the present farm. One is

the existing road to Felmersham but where the road now takes a double bend and commences its long run NE, in 1798 this bend was only an access way into the adjacent fields. Then, a loop road continued E and then SE towards the present Lodge Farm. Its line still survives as a broad shallow hollow way (g), passing between various blocks of ridge and furrow separated by low scarps and ditches. Most of the latter appear to be on the lines of hedges which, in 1798, divided the area into four fields, Rudds Close, Busby Close, Boons Close and Long Close. On the N side of Rudds Close and Busby Close there was, in 1798, a track, but this no longer survives in the modern arable. A long rectangular pond does exist which is not shown on the map. The main hollow way continues SE and runs into:

LODGE FARM SETTLEMENT

The present Lodge Farm, now mainly demolished, was a late 18th century building and some of its out-buildings are shown on the 1798 map on the SW side of the road running from the Chellington church settlement. Opposite the farm house the map shows a side road extending NE into the common fields. On the ground neither the main road nor its side road exist at this point but to the NW and SE of the farm the main road survives intact.

To the NW of the farm the hollow way is up to 2m deep. On its SW side are two blocks of ridge and furrow. On the NE side, which in 1798 was the SE part of the Busby Close, is a series of house platforms (h), surviving as a group of rectangular terraces cut back into the rising ground and separated by scarps only 0.25m high. There is no evidence of any former closes behind them and indeed short lengths of ridge and furrow cut by the modern hedge terminate within a few metres of the house sites. This ridge and furrow is of considerable interest for it appears to run NE – SW. Yet on the 1798 map a track existed a few metres further NE and beyond it was a furlong with plough ridges running NW – SE. These ridges thus presumably represent an older field system unrelated to the fields and track layout of the late 18th century. Of the house platforms the south easternmost and about half of the adjoining one to the NW have been ploughed over.

To the SE of the farm buildings, the hollow way emerges running SE, now only a shallow depression containing a stream. To the NE is an area of ridge and furrow, in 1798 lying within Tolls Close and Grundons, while to the SW are three more level

platforms cut into the hillside (i), presumably house sites. These, together with ridge and furrow to the SE, lay in Jills Hall in 1798.

The Lodge Farm settlement thus consists of at least eight house sites, plus the existing farm, with the odd feature of the houses being only on the SW side of the main street in the SE and only on the NE side on the NW. No explanation can be offered for this. One other feature is worth noting here. The house platforms are very well preserved and if the argument noted earlier is valid, this should indicate abandonment at an earlier date than at the settlement near Chellington church. The discovery of only medieval pottery on the ploughed-out house sites supports this (see below), as does the 1798 map which shows only the existing farm there.

The hollow way or road continues from this settlement up the hillside until it reaches the third deserted settlement:

RUFF'S GREEN

This settlement lies on top of the rising ground on generally flat land. It is approached from the NW by the hollow way (f) which runs E from the SE end of the Chellington church settlement and which is now traceable from the SE edge of Hill Farm. This narrow hollow way, cut to a depth of 2.5 – 3m, probably by water as much as by traffic, climbs up the hillside from Hill Farm passing through and alongside large blocks of ridge and furrow which, in 1798, lay in Wrights Close, Franks Croft and Chellington Croft.

When the hollow way reaches the settlement site at Ruff's Green it continues past it on its S side and, at the corner of Freers Wood, becomes a modern farm track along the northern edge of the wood. In 1798 it was a through road and is shown continuing SE towards Pavenham.

Midway along the length of the hollow way, as it passes the settlement site, a subsidiary hollow way (j) runs off it at right angles to the N, which then turns NW to become the hollow way running down to the Lodge Farm settlement. There are also traces of another hollow way running off the last in an easterly direction, though this is badly mutilated by existing hedges and later activity. Both these hollow ways are shown as roads on the 1798 map. At the junction of the main through road from Chellington church to Pavenham with the road to Lodge Farm and extending as far as the junction with the subsidiary hollow way to the E the map shows a

roughly rectangular open space and names it Ruff's Green. In this area on the ground are some low banks, mounds, ditches and scarps of no coherent form (l) and, in addition, a small stone-lined well-head. To the W of Ruff's Green the 1798 map shows a roughly triangular paddock called Ruff's Close. The boundaries of this close survive on the ground, consisting of the hollow ways on the NE and S and slight ditches and scarps on the W. Within its S part only a small pond exists, but in the N is an area of uneven ground. The land to the E of Ruff's Green is part of what in 1798 was a large rectangular field called Sanders Closes. The eastern two-thirds is now incorporated in the modern arable but the western third is still grass and has earthworks on it. These include a large, probably modern, pond with spoil heaps of gravel around it, but also some slight and mutilated remains of a rectangular area edged by low scarps.

At the N end of Ruff's Green, as noted above, is a subsidiary hollow way running E. To the N of it, at the E end of the fields called Grundons and Tolls Close in 1798 is a small area of disturbed ground (k) which appears to have cut through pre-existing ridge and furrow. On the ground evidence alone this would be inexplicable but the 1798 map shows two buildings here.

The remains of the Ruff's Green settlement are in poor condition and little can be said about them. The map evidence and the pottery found there suggests that, as with the Chellington church site, desertion was slow. The possibility that the last surviving buildings lay on top of earlier ridge and furrow is of interest and indicates a phase of expansion at some period.

FIELDWALKING (Figs 3-9)

From November 1988 to December 1990 the available arable area of Chellington Parish was walked, mainly by extra-mural groups. In all some 135ha were surveyed by means of transects 10m apart. Fifteen visits were made, and in all cases the condition of the ground and the light were good. Some 2300 pottery sherds and tile fragments were found, as well as large quantities of iron smelting debris. The geology of the Ouse valley here is simple. The gently rising slope of the river valley passes in turn over deposits of terrace gravel, Great Oolite limestone and clay, a thin band of Cornbrash blue limestone and clay and, finally, at a height of c.300 feet around Freer's Wood, a spread of heavy Oxford clay.

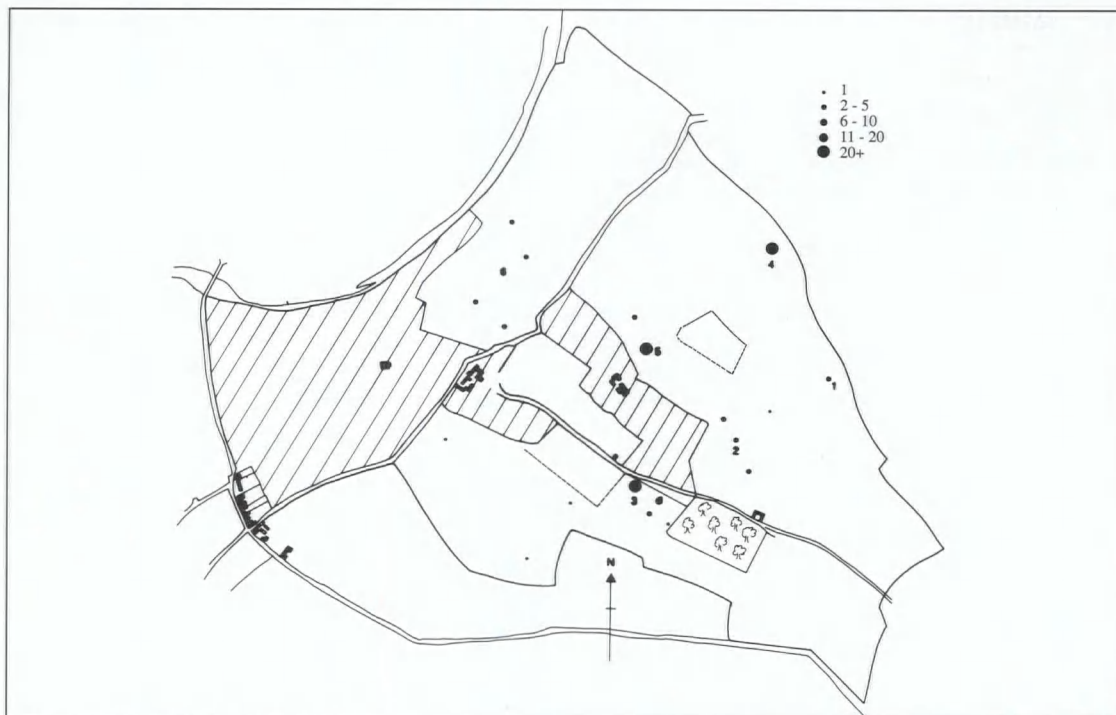


Figure 3 Chellington fieldwalking: Iron Age. The area walked is that contained within the parish boundary of 1798. Shaded areas grassland; areas within dashed lines unwalked. Chellington village is the group of houses on the western edge of the parish

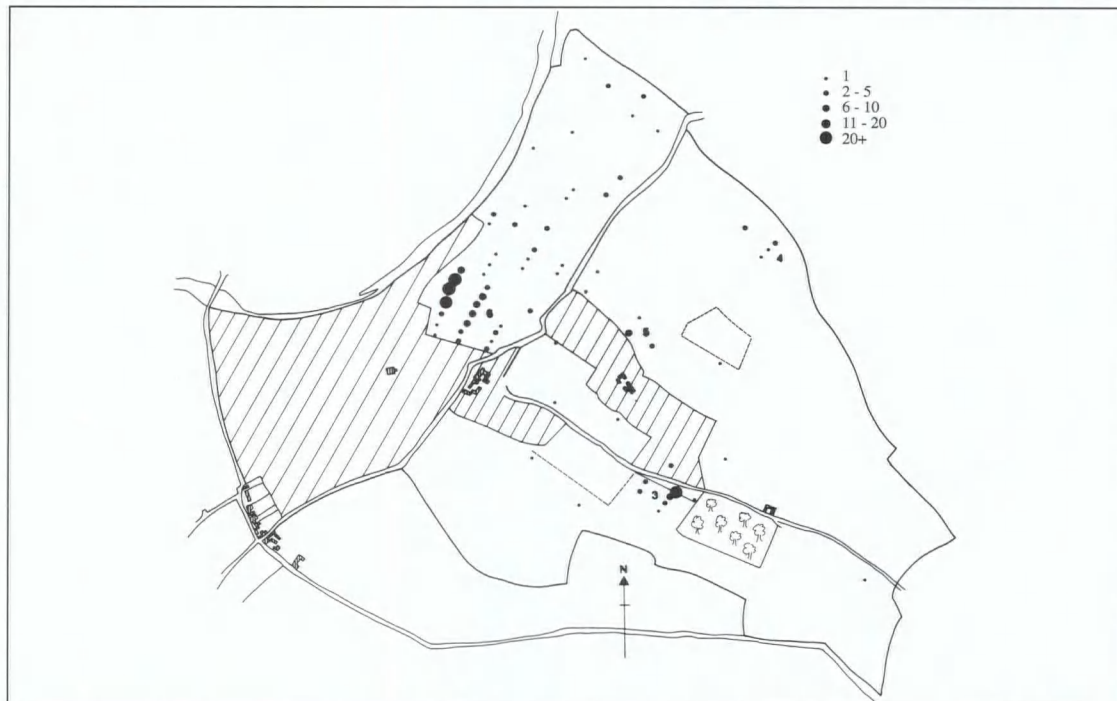


Figure 4 Chellington fieldwalking: Roman

IRON AGE (Fig 3)

There were two broad classes of Iron Age pottery, both represented by small fragments:

- (i) a type with reddish-brown or black surfaces and a thick black or grey core; the surfaces can be either hard or smooth to the touch and the vessels thick walled; sometimes a little shell is visible; and
- (ii) thinner vessels in a smooth, soapy leathery black fabric.

There were small but clear concentrations at 1, 2 and 3, at c.85m above sea level, on Cornbrash close to its junction with the Oxford clay. At 4 and 5 were two more, lower down at 70m on the Great Oolite near its junction with the Cornbrash. There was a thin scatter at 6 on the same geological formation but much lower still between 55 and 60m, just above the flood plain of the Great Ouse. None of these concentrations consisted exclusively of one pottery type only.

ROMAN (Fig 4)

The Iron Age sites 1 and 2 did not apparently survive into the Roman period. No 4 for a short time did; the pottery here included some pieces of a buff brown Belgic type which spans the late Iron Age – Romano-British transition and there are pieces of early Roman shelly wares of the kind made at the kilns at Harrold 4km away across the river. This site came to an end somewhere in the late 1st century AD.

The Iron Age site at 3 went on into the first half of the 2nd century, but perhaps not very far into it; in addition to early shelly wares there were grey and black sandy fragments of this period and a piece of Samian. The site at 5 went on longer since in addition to fragments of buff and black sandy wares, there were pieces of Nene Valley colour coated pottery. Around 3 and 5 was a thin scatter of grey and buff sandy pieces, mostly abraded.

The Iron Age scatter at 6 however went on to become a major occupation focus which spanned the whole Roman period. Here was a scatter of some 4ha containing Belgic buff wares and early Roman shelly pottery, some scored, 2nd and 3rd century grey, buff and black wares, shelly pottery of Harrold type in forms ranging from the 2nd to 4th centuries, Samian, and Nene Valley colour coated pottery. There were also fragments of shelly tiles. There was a thin scatter of Roman pottery in the fields northward of the site, to the west of the modern road to Felmersham.

EARLY-MIDDLE SAXON (c.450-800AD) (Fig 5)

Pottery of the period 450-800 AD fell into two broad fabric groups, a black or grey fabric of variable degrees of coarseness and with plenty of shiny sand visible; and a crude black or buff ware with rough shelly inclusions. Both groups were found together at 6 in much the same places as the Roman pottery. There was also a small concentration at 5, where it will be remembered that the Roman pottery also included late types; and two isolated sherds at 7, on the Cornbrash close to the Iron Age/early Roman site 3.

EARLY MEDIEVAL (c.800 – 1100AD) (Fig 6)

St. Neots ware came from the ploughed earthworks at 8 – part of the settlement near the church – and formed part of the thin medieval pottery scatter in the fields to the N of them; from the ploughed field E of Hill Farm (9) and from the ploughed edges of the earthworks of the Ruff's Green site (10). Some also came from the field to the N of the Lodge Farm settlement (5), where early-middle Saxon pottery had been found.

MEDIEVAL (c.1100 – 1500AD) (Fig 7)

The drawing shows how medieval pottery was abundant and evenly spread over the whole parish, with the exception of the SE corner. The types included shelly wares of the 12-14th centuries, and a variety of brown, black, grey and pinkish sandy wares, some with green-brown or honey coloured glazes. Later types included fragments of later Lyveden wares 1400 – 1500, late buff sandy wares with the same date range and late medieval reduced wares 1350 – 1600. There were three concentrations:

- (i) At 8 the ploughed-down earthworks of the settlement near the church produced a great deal of shelly and sandy pottery going down to the end of the 14th century but hardly any later pottery.
- (ii) At 5, near the Lodge Farm site, a concentration of similar pottery with however a few pieces of late reduced and sandy pottery and tile and a piece of Cistercian ware.
- (iii) Around the earthworks at 10 (Ruffs Green) mainly shelly wares going down to the later 14th century, but with a significant quantity of types of the 11th to later 12th centuries.

POST MEDIEVAL (c.1500AD – recent) (Fig 8)

The pottery includes pieces with a fine reddish brown sandy fabric, with a brown, reddish brown

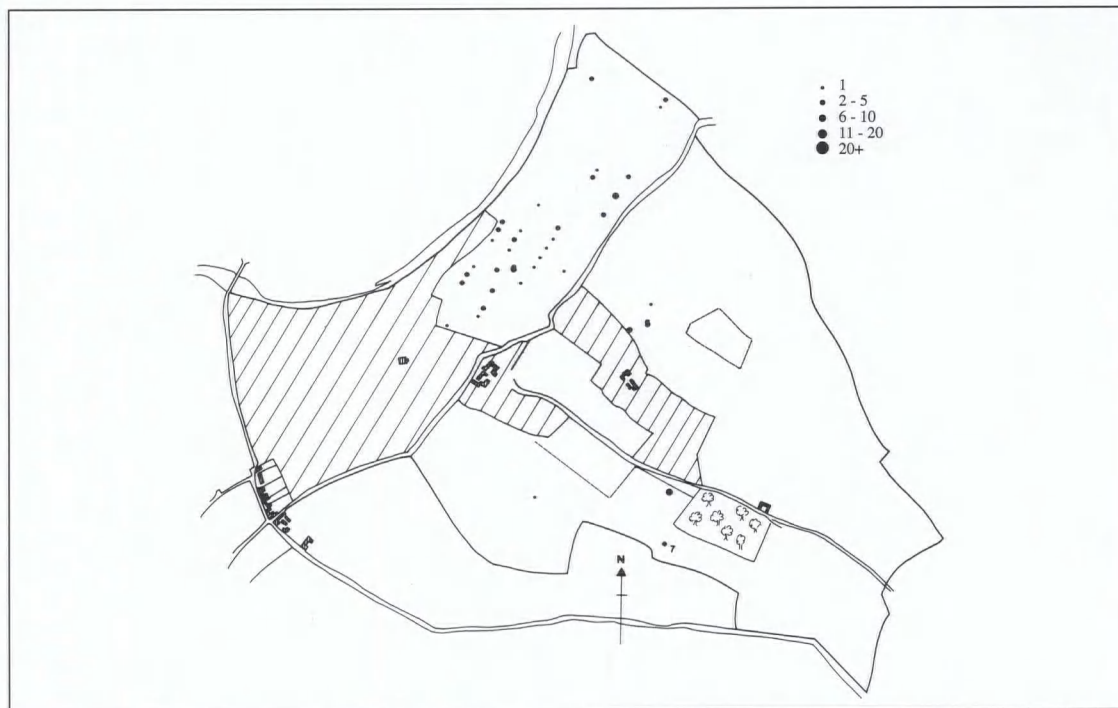


Figure 5 Chellington fieldwalking: Saxon

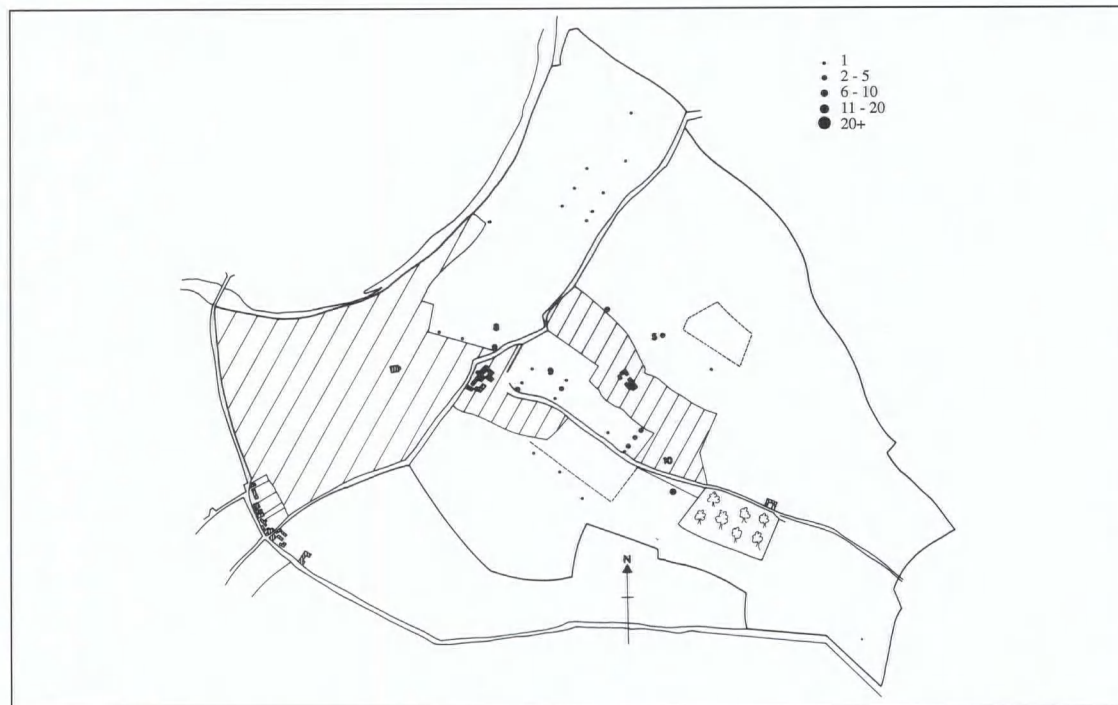


Figure 6 Chellington fieldwalking: early medieval



Figure 7 Chellington fieldwalking: medieval

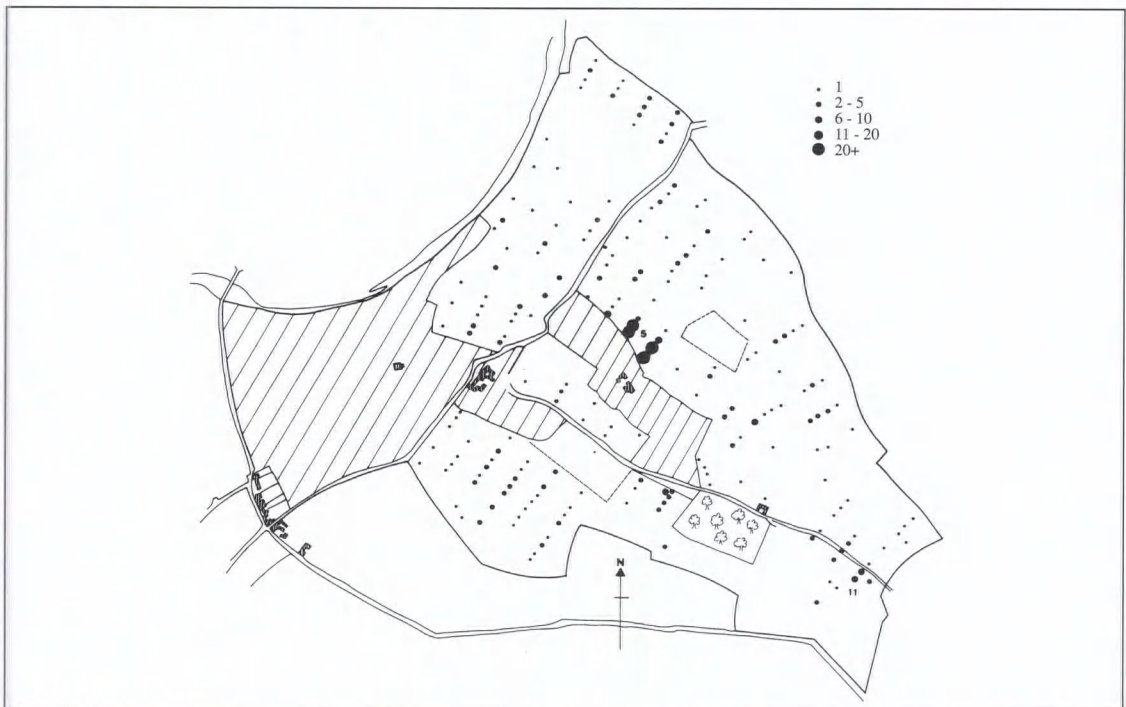


Figure 8 Chellington fieldwalking: post-medieval

and green glaze, of the kind made at Potterspury, Northamptonshire, in the 16th and 17th centuries; stonewares, black and yellow glazed and unglazed earthenwares of the 18th and 19th centuries, Staffordshire slipwares, willow pattern, and ceramic tiles of 17th to 19th century date or later. This material was as ubiquitous as the medieval pottery, but there were some significant concentrations:

North of the Lodge Farm site at 5, where the material ran through the 19th century and probably into the 20th – Staffordshire brown and yellow glazed pieces, many tile fragments and an 18th century wine bottle.

East of Freers Wood at 11 was a small concentration of pieces of limestone, with 17th century lead glazed Potterspury fragments, and black, brown and yellow earthenware of the 18th and 19th centuries; pieces of stoneware, ceramic tiles, and 17th and 18th century clay pipes. There was an inn here called the Chellington Fox on the 1798 map, and on Jefferys' county map of 1765. Also, in 1729, Mr Vere John Alston, having drunk too much, 'clapt spurs to his horse, and coming into the road at Chellington Fox, his horse fell into a Cart track and down he came' (Linnell 1950, 12).

IRON SLAG (Fig 9)

Pieces of iron smelting slag were picked up almost everywhere. There was a concentration of these at 6, where occupation of Iron Age, Roman and early-middle Saxon date was found. But in addition to this, slag occurred abundantly in concentrations 20-30m across, around the fringes of what became the medieval and later common fields, framing quite neatly the distribution of the St. Neots ware.

GENERAL OBSERVATIONS

To deal with the earthwork evidence first: the work has discovered evidence of three, quite separate and now deserted, small medieval settlements and these, together with the existing village of Chellington, means that in fact there had been four settlements within the township in the Middle Ages. Chellington therefore fits in with a widespread pattern of dispersed settlement now well known from northern Bedfordshire (Brown and Taylor 1991).

Equally important are the implications for documentary research. There is no hint in the published histories of any of this physical complexity. In tenurial terms Chellington was a

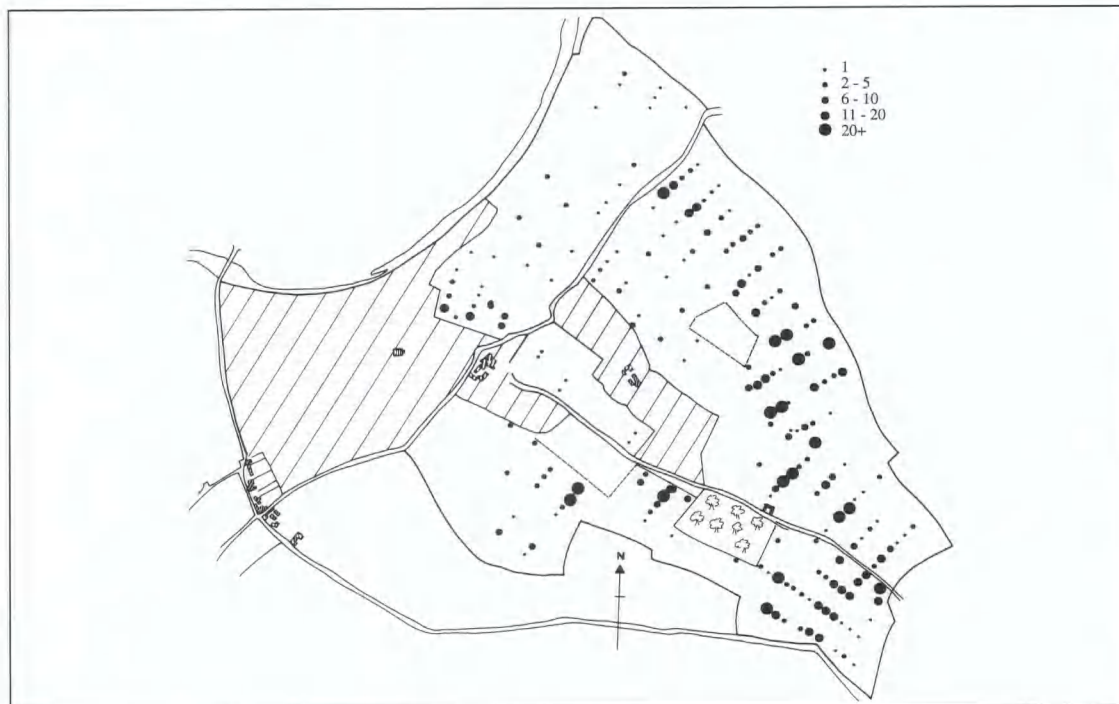


Figure 9 Chellington fieldwalking: iron slag

single four hide manor in 1086 held by the Bishop of Coutances, with a recorded population of 23. The single under-tenant was Geoffrey Trailly and the manor passed from father to son in a regular manner until the 15th century (VCH 1912, 54-6). It may well be impossible to discover from historical records alone exactly how this pattern of settlement developed or functioned in medieval times.

The earthwork survey has also pointed out other less vital but none-the-less interesting information. The apparently long drawn out process of abandonment of the settlements is one example and the possible difference in date between the abandonment of the Lodge Farm earthworks and the settlement near the church is noteworthy. Another is the evidence for alteration or relay of the common field system in at least two places.

Particularly interesting from the point of view of analytical field survey is the inability of a fieldworker to identify former house sites which were shown on the 1798 map, as well as the fact that while most of the 1798 boundaries survive and can be recognized and interpreted, some do not and could never be recovered using archaeological methods.

The addition of the fieldwalking evidence brings forward the importance of the system of roads and tracks of the township as the key to understanding the pattern of settlement. It is clear that the relationship between the road system and the settlements is very close – all the sites described here clearly relate to roads and tracks which are either still in use, which survive as earthworks or which can be shown from cartographic evidence to have existed. This true of the Iron Age and Roman scatters at 3 (Ruffs Green), 5 (Lodge Farm) and 6 (near Hill Farm); the track from the bridge at Harrold to Pavenham, the original road to Felmersham and the loop track to Lodge Farm on this evidence look prehistoric. The Iron Age sites 1 and 4, against the northern parish boundary, are not at variance with this since the pre-enclosure map shows a strip of common pasture along the edge of the parish here, which continues the line of a trackway which ran from Odell (Fig 1).

This is a pattern which continues into the Saxon period – the Iron Age and Roman site at 6 goes on apparently without a break, as does the Lodge Farm site 5. There is a break in occupation at Ruffs Green in the middle and later Roman period, but it does look as if the medieval earthwork sites described by us might well have early or middle Saxon origins on the basis of the fieldwalking evidence, with Lodge

Farm and the area of occupation near the church going back very much earlier.

The general picture is one of gradual change within the framework fixed by an ancient trackway system. There seem to have been two broad periods during which really fundamental change took place – the (probably) late Iron Age and earlier Roman periods, which saw the permanent demise of the sites along the northern edge of the parish and the end of site 3 at Ruffs Green, together with the development of a major focus near Hill Farm at 6. The second significant phase was the late medieval/earlier post-medieval period, during which the earthwork sites were abandoned, as a result of population decline and possibly changes in the pattern of communication. The present village of Chellington lies along a road which because of loops in the River Ouse is a more convenient route from Harrold bridge to Bedford than the track which runs due south from Hill Farm to Pavenham. But the evidence we have does not suggest that any of these changes was particularly abrupt.

The fieldwalking has shown up interesting changes in the extent of land under the plough at various periods. Bearing in mind that Sites 3 and 4 fade away, then the Roman manuring scatter shows if anything a contraction in the area under the plough, but with an apparent intensification of activity in the zone alongside the River Ouse. The earlier Saxon arable seems to have been concentrated here. The early medieval phase has pottery here as well, but shows an expansion onto areas in close proximity to the trackway system. In the medieval period the whole parish was under the plough, but the manuring scatter is thinner around the boundaries, and in particular on the Oxford clay in the eastern part of the parish. These zones coincide with the areas which produce patches of iron slag, evidence for smelting with locally produced charcoal and part of a pattern well known from the Bedfordshire claylands (Hall and Hutchings 1972). The slag was not in itself dateable but the distribution carries with it a suggestion of an early medieval date (although earlier periods cannot be entirely ruled out) – an excavated example at Easton Maudit in Northamptonshire produced a carbon 14 date of 1240AD±100 (Hall 1983). It would have been the expansion of medieval cultivation onto this presumably wooded land which brought this (possibly part-time) local industry to an end.

A quite unresolved problem, of course, is the origin of the row of houses known today as the

village of Chellington. This sits rather oddly on the ancient boundary of the parish of Chellington in the west, separated only by the road from the Bridge End houses of the ancient parish of Carlton. As Fig 3 shows, this group of houses has the appearance of a regularly planned settlement of medieval origin, but since it has proved impossible to relate any of the medieval documentation specifically to it, we have been unable to suggest when it came into being.

ACKNOWLEDGEMENTS

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A medieval cemetery at Brook Drive, Kempston

MICHAEL DAWSON

With contributions from P Kiberd

Illustrations by C A Marshall

SUMMARY

Several inhumations excavated at Brook Drive, Kempston, probably form part of a larger 10th/11th century cemetery. The location of the graves suggests the cemetery may relate to a settlement pattern influenced by the Danelaw predating the establishment of the late Saxon estate seized by Edward the Confessor from Earl Tostig.

INTRODUCTION (Fig 1)

In May 1991 the excavation of a foundation trench, part of an extension to 6 Brook Drive, Kempston, led to the discovery of a human skull. Subsequent excavation by Bedfordshire County Archaeology Service resulted in the investigation of 8 inhumations. The discoveries were reported in the local press, Bedfordshire on Sunday 2/6/91. The site was subsequently given the BCAS project code WB145. The site archive will be accessed into Bedford Museum – 98/183.

TOPOGRAPHY AND GEOLOGY

The cemetery was located on the south bank of a small tributary of the River Great Ouse called the Ash Brook. The site is located on alluvial silts in an area of gravel loam drift above Jurassic clays. The local soil type is a non calcareous gley soil of the Rowsham series.

HISTORICAL BACKGROUND

The site is located in an area noted for its prehistoric, Roman and Saxon period settlement. However, very little is known regarding the cemetery location. It became part of Kempston Bell End, was enclosed by 1800 and on the Enclosure Map of 1804 is shown to be near two properties (553 & 552) in the 'Close' (CRO: MA18). By 1848 the site location had become 'Home Goodings' and the area was developed for housing by the 1950's (Wood 1984). Only general references to the area have been found from the early medieval period.

THE ARCHAEOLOGICAL EVIDENCE (Fig 2)

The 8 graves investigated were all shallow, excavated through light sandy soils. The absence of

finds suggests the cemetery site was some distance from any domestic activity with only one small area where charcoal was noted in the subsoil.

GRAVE 1

- 1 Inhumation 1
- 2 E-W
- 3 Supine, head to west
- 4 Sex
- 5 Rectangular grave cut [04] badly disturbed by modern foundation.

GRAVE 2

- 1 Inhumation 2
- 2 E-W
- 3 Supine, head to west
- 4 Sex
- 5 Rectangular grave cut [06] badly disturbed by modern sewer.

GRAVE 3

- 1 Inhumation 3
- 2 E-W
- 3 Supine, head to west
- 4 Sex
- 5 Rectangular grave cut [08] shallow.

GRAVE 4

- 1 Inhumation 4
- 2 N-S
- 3 Supine
- 4 Sex
- 5 Rectangular grave cut [10] badly disturbed by modern pipe trench.

GRAVE 5

- 1 Inhumation 5
- 2 E-W
- 3 Supine, head to west
- 4 Sex
- 5 Rectangular grave cut [12]

GRAVE 6

- 1 Inhumation 6
- 2 E-W
- 3 Supine, head to west
- 4 Child
- 5 Shallow rectangular grave cut [15]

GRAVE 7

- 1 Inhumation
- 2 E-W
- 3 Supine, head to west
- 4 Adult

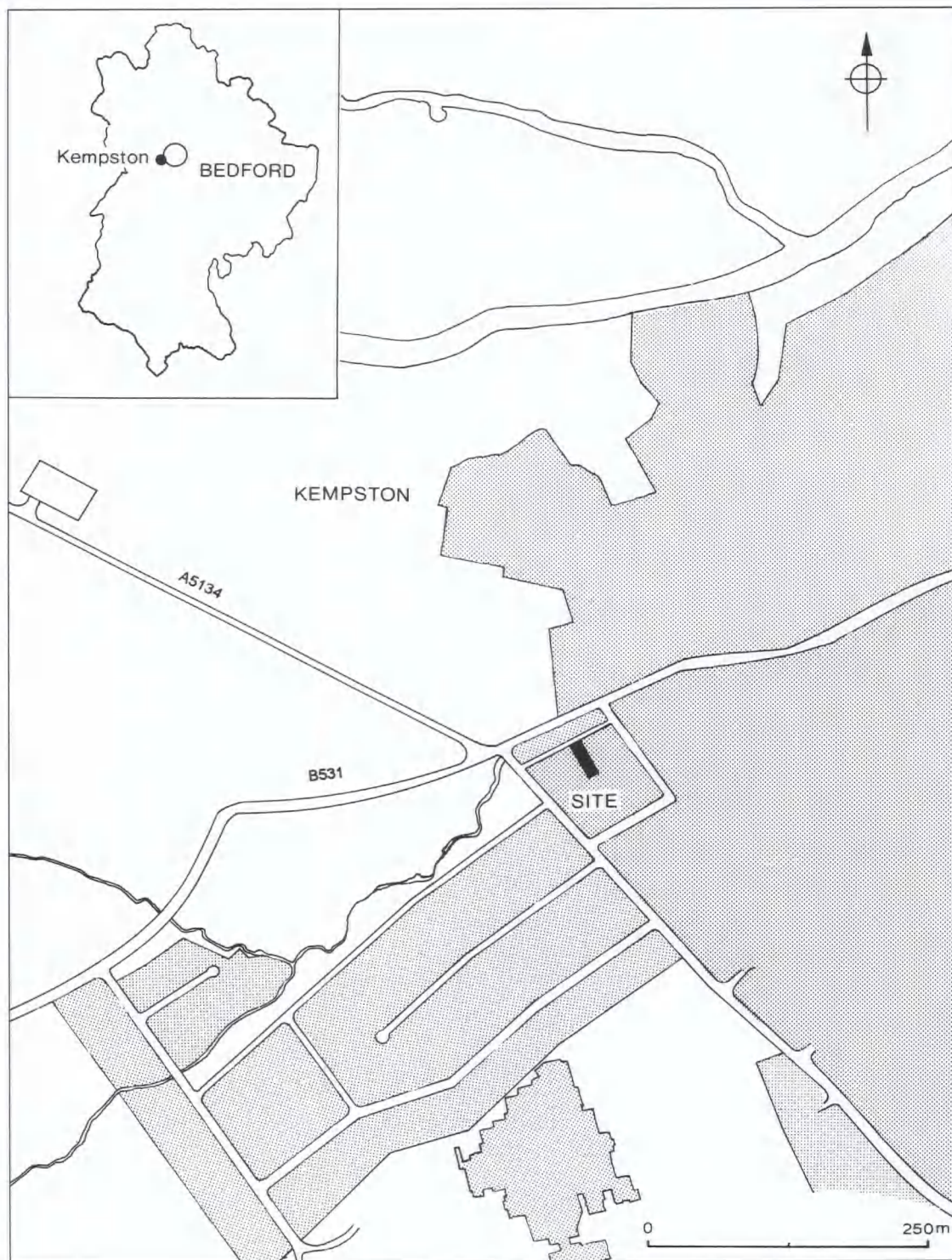


Figure 1 Location of the Brook Drive Cemetery

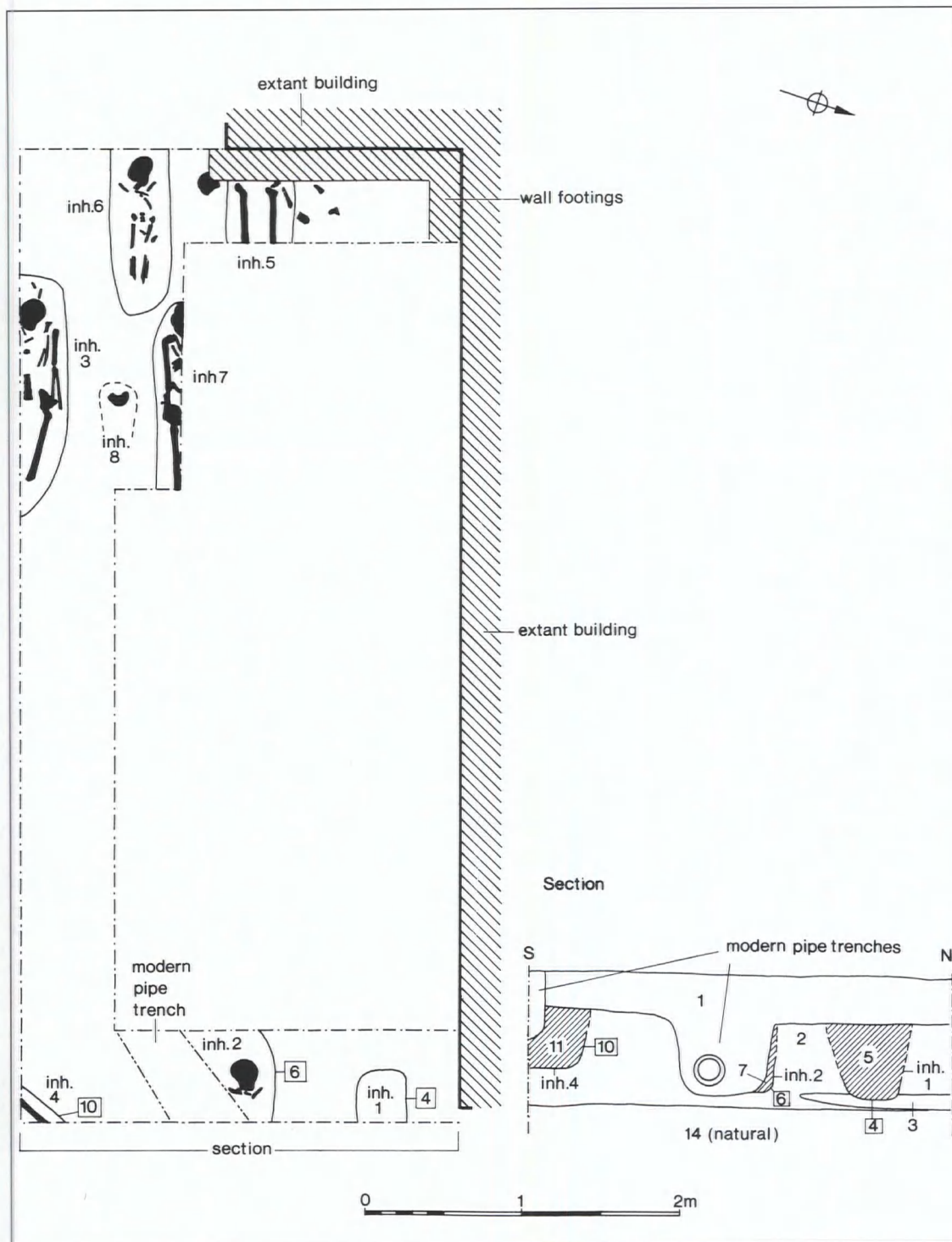


Figure 2 Plan and section of the inhumation cemetery

- 5 Rectangular grave cut [17] only part excavated.
- 6 Six coffin nails

GRAVE 8

- 1 Inhumation
- 2 E-W
- 3 Supine, head to west
- 4 Child
- 5 Rectangular grave cut [20] disturbed by animal and root activity.

THE SKELETAL DATA

P Kiberd

INTRODUCTION

Of the 8 inhumations only 7 skeletons were excavated. They were numbered 1-6 and 8. Inhumation 7 was observed but not excavated. The remains represent six adults and two infants.

Skeleton 1

Cranium: the majority of the skull was present but in a fragmented state. It comprises left and right parietals and frontal bone. The coronal suture was closed and partially obliterated. A reasonably strong nuchal crest was observed indicating strong muscle attachments on the occipital. Parts of the temporal bones are present. The right mastoid exhibits slight pitting and new bony growth.

Dentition: the mandible is present in two halves and lacks its condyles. The maxilla is less complete.

rightXX65-321/-2345XX-left maxilla

87654321/12345678 mandible

Mandible: the mandible exhibits slight to heavy calculus on all teeth, on all sides. It is heaviest on the incisors. Both first molars are very worn. The left M2 and M3 are more heavily worn than the right side. Some alveolar pitting is evident with loss of bone around both right and left first molars.

Maxilla: the palate is pitted and irregular, the alveolar bone is pitted. The left first and second molars have been lost ante mortem, and the stub of either the left first or second molar was evident, both molar sockets exhibit alveolar pitting and re-absorption in and around the sockets. The right first molar was heavily worn.

Post cranial bones: the following were present; ten vertebrae, (including part of the atlas and axis, seven thoracic, and one cervical) fragments of both scapulae, the right clavicle and the right humeral head.

Age: based on molar attrition and probably misrepresented due to the state of the teeth, 35-45 years. Cranial suture suggests an age closer to 50, probably 40-50 +/- 10 years.

Sex: based on morphological cranial indicators and right humeral head (55mm) indeterminate but possibly male.

Discussion: the evidence of heavy wear on the left teeth suggest this individual was right handed.

Skeleton 2

Cranium: virtually complete but in a fragmentary state. The brow ridges are visible but not prominent. The mastoids are small, and the mandible exhibits a pointed chin, suggesting a female skull. The frontal bone exhibits pitting and slight striation of the orbits both right and left. The internal surface exhibits three lesions. All three are irregular, ovoid in shape, lytic, and there is evidence for the destruction of bone and some re-deposition. Two of the lesions are on the left side, one on the right. All are at the centre of the frontal bone close to the frontal ridge. One lesion has penetrated both tables of the skull and forms a hole 6mm x 7mm, which has smooth walls. It is unclear without x ray, whether the lesion has passed from the inner table outwards or from the internal diploe both inwards and outwards. Some post mortem damage has destroyed part of this lesion. The right parietal exhibits seven further depressions which match those on the frontal bone. One of these close to the temporal suture has penetrated both the outer and inner table.

Diagnosis of these lesions includes tuberculosis, metastatic carcinoma or cranial osteomyelitis. The first two cause lesions very similar to those described above. If the lesion(s) relates to metastatic carcinoma, a cancerous lesion which has spread either via the blood or the lymph, it is likely to be a secondary lesion or metastasis.

Other pathologies are evident on the temporal bones, both of which exhibit pitting around the external auditory meatii. The right also exhibits destructive lesions at the distal end of the mastoid, as well as internally along the auditory canal. It is evident that this individual suffered from mastoiditis, an erosive infection of the inner ear which results in much discomfort and deafness.

Dentition:

R87654321/12345678L

87X54 - - - / - - 345678

Mandible: this exhibits severely worn left first molar and second molar. The first molar crown has been eroded away and only the root and pulp cavity remain, the second molar is worn to the pulp cavity. The right first molar has been lost ante mortem. The remaining teeth are heavily worn but are comparatively in much better condition.

Maxilla: This is severely malformed pathologically and nearly all the teeth have been lost before death or were in the process of being lost. On the right side the first and second pre-molars remain as crowns worn to the pulp and the third molar as a root stub only. The entire right side is pitted and bone is in the process of being reabsorbed. On the left side the canine remains healthy but appears taurodont. The first and second pre-molars are just crown stubs worn to the pulp cavity. Much pitting is evident along the whole of the jaw. Five loose teeth are not readily placed, three are worn to the root and two are merely root stubs. Two further incisors represent mandibular teeth displaced upon excavation.

Heavy infection is apparent in the mandible and maxilla and at the mandibular condyles, which are pitted and show blastic and lytic lesional activity. The visible pathology is presumably due to bad diet, poor dental hygiene and/or malocclusion of the jaws. The molars have decayed leading to infection in the gums which spread as periodontal disease to the ear via the manubriotemporal joint.

Post cranial bones: there are a number of miscellaneous rib, vertebral and pelvic fragments. One unsided clavicle shaft part. A first right rib exhibiting evidence of fracture and healing, the distal half of the shaft lies at nearly 90° to the proximal half. Ten vertebrae include atlas and axis, four cervical and four thoracic pieces. The fifth cervical vertebra exhibits collapse anteriorly with severe pitting on the inferior surface of the vertebral body and lipping around the body edges. The sixth cervical vertebra has pitting and remodelling of the superior body surface corresponding to the fifth cervical. The axis and the third cervical vertebra exhibit pitting of the articular facets, which is severe and partially eburnated. It is most evident on the right side. Three of the thoracic vertebrae also exhibit pitting on the articular facets. It is likely that the vertebral pitting and collapse is linked to the right rib fracture.

Age: based on molar attrition of unpathological molars, 35-45 years. For such decay this appears quite young, however because of malocclusion those molars unaffected may well indicate a false age. The age given therefore is a minimum. Cranial suture closure suggests a more probable age of 50+.

Sex: indeterminate but possibly female.

Discussion: inhumation 2 was an elderly female between 40 and 50 years who suffered from three probably unrelated pathologies. The skull exhibits evidence of metastatic carcinoma, the jaw dental disease, and the post cranial skeleton, trauma.

- 1 Metastatic Carcinoma: in the cranial vault this is a secondary manifestation of cancer, the result of haematological spread from another part of the body.
- 2 Poor oral hygiene led to loss of teeth and gum infection which spread to the ear mastoids resulting in very decayed and painful jaws, restricted diet and loss of hearing.
- 3 Some evidence of trauma can be seen in healed fractures of the first rib and vertebral slumping or collapse and this may have resulted from menopausal decalcification.

Skeleton 3

Cranium: this is very fragmented and consists largely of pieces of parietal, occipital and temporal. It is also highly eroded by post mortem activity. It is thus difficult to age or sex significantly.

Dentition:

- 7-543 - - / - - - - 5678
-- 654-2- / - - - - - - -

Caries on 61% of all teeth present. No calculus evident but the following carious lesions:

Mandible	Right	PM1	Occlusal 4
		M1	Occlusal 6
	Left	I2	Occlusal
Maxilla	Right	PM2	Occlusal
		C	Occlusal
		PM1	Occlusal
	Left	M2	Cemento enamel junction (CEJ) distal surface
		PM2	Occlusal
		M1	Occlusal x 2
		M2	CEJ distal
		M3	CEJ distal

Post-cranial bones: the following are present. Left arm incomplete, fragmentary and eroded, shaft parts of humerus, ulna and radius, no articularity ends. Left leg very fragmentary femur, no tibia or fibula. Also present were several damaged fragments of the left innominate and of the ribs and vertebrae. No

metrically viable fragments were observed and no pathologies visible.

Age: on molar attrition: 25-35 years.

Skeleton 4

Only post cranial bones were present, all very fragmented, only a femur shaft and piece of acetabulum discernible, but unplaced.

Skeleton 5

Cranium: fragmentary but largely complete. The bone is very eroded by post mortem activity. There is a possible lytic lesion on the right parietal toward the sagittal suture near the mid line of the skull. The lesion is an irregular heart shape, coarse unsmooth edges, no remodelled bone with two deeper pits. It is approximately 10mm x 5mm and possibly pathological in origin, although it may be insect created.

Dentition: only the right side of the mandible is present and this lacks the condyle and ramus.

-----/-----
876 -----/-----

Post cranial bones: both femurs though present were fragmentary and eroded. Part of the pelvis was present but was very fragmentary. Also present were the distal articulation of the right humerus and a very tiny right patella. No pathologies visible. Approximate stature: based on reconstructed femur: 157cm or 5'2".

Age: on molar attrition of first and second molars: 35-45 years; third molar suggests 25-35 years. Mean: 30-40. No calculus or caries.

Sex: possibly female.

Skeleton 6

Cranium: complete but again very fragmentary, it is a juvenile cranium.

Dentition: part of the mandible with erupting incisors is present. Loose teeth include, molars, canines, incisors and premolars.

Post cranial bones: all bones present were fragmentary: Right and left humerus. Left scapula. Left clavicle. Right and left femur. Right and left tibia and fibula. Part of pelvis. All ribs, damaged. Plus other various unplaced bone fragments. No pathologies were visible.

Age: based upon erupting in situ teeth; 4-5 years +/- 9 months, based on loose teeth and in situ teeth 5 years +/- 9 months.

Skeleton 7

Not excavated.

Skeleton 8

This consisted of very fragmented skull, mandible and maxilla pieces and a mix of permanent and deciduous teeth in situ and loose. Only four teeth were in situ, twenty two others were loose. In situ were three deciduous molars and one unerupted permanent premolar. The remains represent one infant aged via teeth to 5 years +/- 9 months.

DISCUSSION

With such a small and incomplete set of remains it is difficult to interpret further than simple inventory. However, skeleton 2 is significant: the dental disease and associated infection is a reminder of inadequate oral hygiene in the past, and the evidence of severe mastoiditis is an unusually clear example of destruction of the middle ear which would cause hearing loss.

Skeleton	Age yrs	Sex	Pathology
1	40-50	Male	OA
2	40-50	Female	Cancer
3	25-35	?	—
4	?	?	?
5	30-40	?	—
6	5		—
8	5		—

Table 1 Age and sex of skeletons at Brook Drive, Kempston.

THE C14 DATES

Three C14 dates were sought from Beta Analytica and they were taken from the human bone assemblage as follows: Inhumation 1 (05), Inhumation 3 (09), Inhumation 5 (013). The dates were:

Beta 97085, WB145 (05), human bone sample 1 (inh 1)
1070 +/- 60BP

Beta 97086, WB145 (09), human bone sample 2 (inh 3)
960 +/- 50 BP

Beta 97087, WB145 (013), human bone sample 3 (inh 5)
950 +/- 50 BP

The dates are reported as RYCB (radio carbon years before present = 1950 AD) at 95% confidence. The C13/C12 value was estimated based on a typical C3 bone collagen value (-19 per mil).

ENVIRONMENTAL EVIDENCE

Three soil samples were taken from contexts (03) [3lts], (09) Inh 4 [4lts], and (16) Inh 6 [1.2lts] to recover charcoal for plant macrofossils. All were unproductive and no charred plant remains were identifiable.

DISCUSSION

The radio carbon dates from the inhumations at Kempston suggest the Brook Drive cemetery was in use in the late 10th century, probably pre-Conquest. It is noteworthy for its position far from the known site of the manorial centre at Kempston Daubeney (Crick and Dawson 1996) and for its proximity to the small stream on the first terrace above the River Great Ouse. The lack of documentary evidence, the condition of the graves and the absence of grave goods suggest a mid/late Saxon Christian cemetery. The historic context of such a foundation can only be established in very general terms as follows.

The origins of Kempston parish may have followed the model in which a villa regalis, supported by a number of hamlets, grew out of an earlier Roman estate (Wood 1984, 30). In the late 9th and early 10th century Kempston was on the boundary of the Danelaw formed by the River Great Ouse between Bedford and Watling Street. By the late 10th century Kempston was the centre of an estate held by Earl Tostig. His lands, valued at 13 pounds and supporting 20 plough teams, were seized by Edward the Confessor when Tostig was banished and by Domesday the estate had passed to Countess Judith, niece of William the Conquer who also owned land in Potton through her marriage to Earl Waltheof. By the 14th century Judith's estate had been divided into three manors – Kempston Daubeney, Brucebury and Greys with Kempston

Bourne End possibly monastic or freehold land. At Domesday the estate centre may have been at East or Up End, near the present day site called 'Kempston Manor', which may have been first established during the 10th -11th centuries (Crick and Dawson 1996). In addition to the estate centre Domesday attests two thegns resident at Church End, Box End or Hardwick and each of the three residences may well have supported a chapel and burial ground.

At Brook Drive, however, there is no evidence either for a chapel or of domestic activity: the cemetery may have been marked only by a simple cross. Yet although the limited range of dates from the cemetery suggests it did not remain significant into the Norman period it was in use concurrently with the early establishment of the estate centre at 'Kempston Manor'. The location of the cemetery some 600m west of the 'Kempston Manor' seems too far removed from this centre for it to be part of the manorial complex and it is even further from the historic parish church at Church End. This suggests it represents an early settlement pattern, probably the graveyard of a previously unknown missionary chapel. Whether its position can be attributed to the influence of the Danelaw or its demise to the result of changes brought about once tithes were made compulsory in the 10th century is equally uncertain (Blair 1988).

It seems appropriate, therefore, to suggest that the cemetery may once have belonged either to a private foundation or, possibly, a monastic missionary church which, once the parish boundaries and parish church became established in the 10th/11th century, lost its burial function.

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Evidence for medieval settlement from Marston Moretaine

JACKIE CRICK

With contributions by Jackie Wells and Eden Hutchins

Illustrations by Cecily Marshall

SUMMARY

Development of a piece of land adjacent to the moated site of Moreteyne Manor on the W side of Marston Moretaine provided the first opportunity for an archaeological investigation within the village. Five phases of activity were identified within the study area, ranging in date from the early to late medieval periods. These phases encapsulate a change in land use from settlement to arable over a relatively short period of time. This transition may have been partially driven by the construction of the adjacent moated site. Several of the early closes survived until the 19th century and influenced the subsequent layout of the modern fields.

INTRODUCTION

A planning application was submitted to Mid Bedfordshire District Council for a housing development on a 2.43 hectare site on the W side of Marston Moretaine (SP 9942 4132). In accordance with guidelines set down in the Department of the Environment's *Planning Policy Guidance Note 16: Archaeology and Planning* (HMSO 1990) a specification was issued by the County Heritage Officer for a programme of archaeological evaluation of the site in advance of development. This work was undertaken in January 1994 by RPS Clouston Ltd and comprised a field survey followed by trial excavation. Occupation activity was identified in the southern third of the study area, with evidence for several structures and ditches dating to the 12th-13th centuries. These remains were considered significant enough to warrant their preservation by record. Full excavation of an area in the southern part of the site was undertaken during the following March by Bedfordshire County Archaeology Service.

This report presents the results from both the evaluation and excavation stages of the investigation and focusses on the early to late medieval occupation of the site.

GEOLOGY AND TOPOGRAPHY

Topographically Marston Moretaine is situated 10 kilometres SW of Bedford in the Vale of Marston

(Fig 1), on a level plain of ground at 41mOD. To the N and W the land rises to a maximum of 117mOD where a ridge of Jurassic clay, mantled by boulder clay glacial drift, forms one of the interfluvies for the River Great Ouse. To the S lies the Lower Greensand Ridge. The underlying geology of the valley floor comprises non-calcareous gley soils overlying Oxford Clay. The poorly drained nature of the land is reflected in the settlement's name, Marston being derived from the Old English '*merston*', meaning settlement by the marsh. The ancient woodlands of Marston Thrift and Holcot Wood lie to the N and W of the village where they are skirted by the parish boundary.

The area of investigation lies on the N side of Woburn Road, to the E of Moreteyne Manor and 250m NW of the 14th century parish church of St Mary's (Fig 2). At the time of the fieldwork the land was under rough pasture. Numerous ponds were present despite a recent attempt by a previous landowner to infill several of them.

HISTORICAL BACKGROUND

The earliest useful cartographic evidence for the study area comes from the 1840 Tithe Map. The field then was much as it is today, comprising an L-shaped area of ground named *Ley Close* (Fig 2), a term indicating a small area of old enclosed ground temporarily laid down to grass (Coleman and Wood 1985). Marston Moretaine was enclosed in 1797, and although no map exists, it is possible to relate the allotments and closes described in the Enclosure Award Book to the Tithe Map of 1840. In doing so it becomes apparent that *Ley Close* was an amalgamation of two earlier enclosures. The smaller of these fronted Woburn Road and was bounded to the rear by the leat that survives today running SW-NE across the study area.

To the W this leat emerges from the site of Moreteyne Manor (Historic Environment Record (HER) 4800) thought by the Victoria County History to be the *capital messuage* of one of the two medieval manors that held land in Marston. Whilst the exact location of this residence is still open to debate, the Manor is one of two moated sites in the



Figure 1 Marston Moretaine Parish: Medieval Features

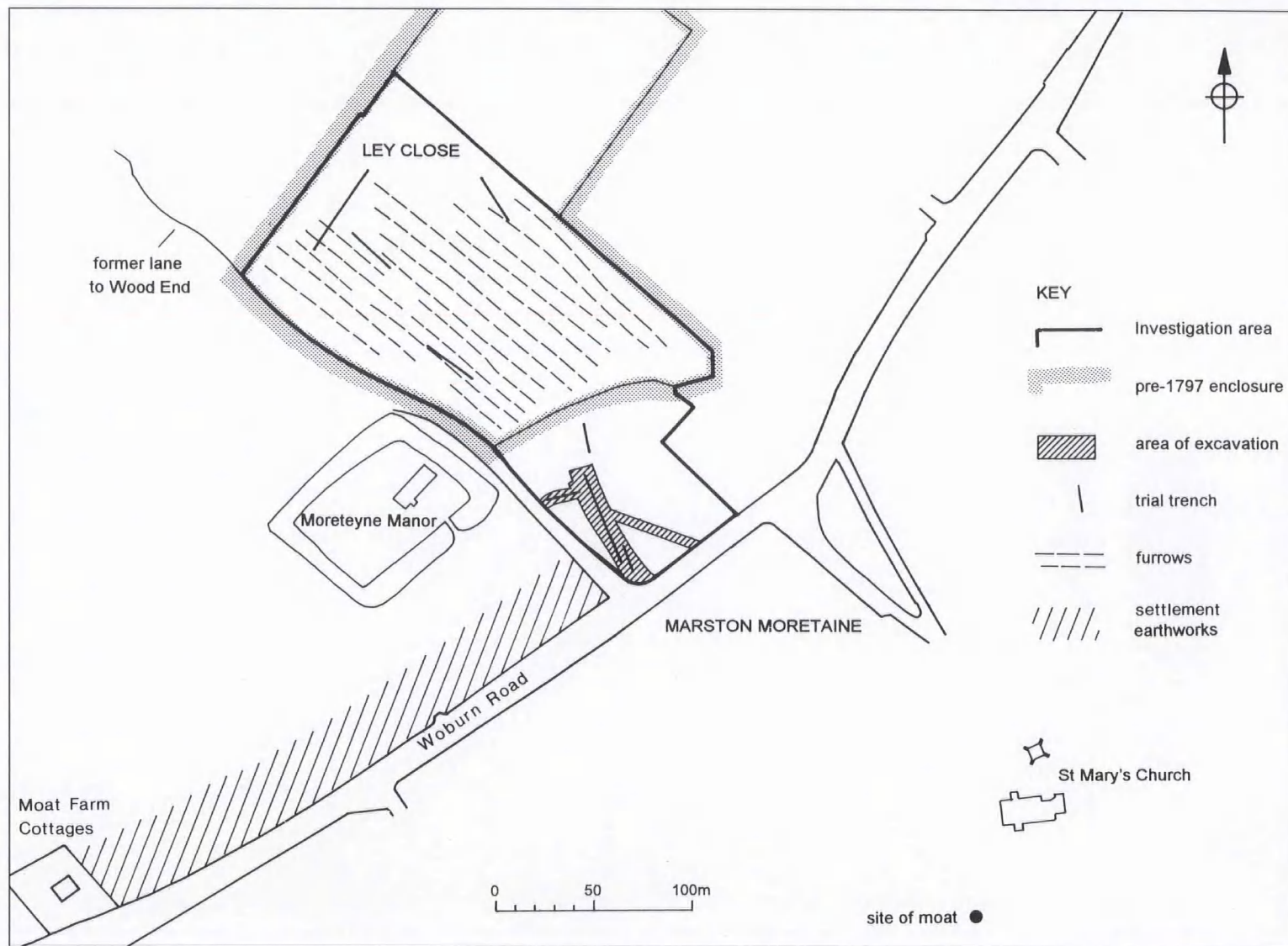


Figure 2 Location of Area of Investigation

village, the second originally lying to the SW of the parish church.

Some clue as to the early layout of the settlement is suggested by a series of rectangular, raised earthworks (HER 8727). These extend for about 300m along the N side of Woburn Road, from Moreteyne Manor W as far as Moat Farm Cottages. The platforms range in size from 5m x 10m to 10m x 30m and are considered to be medieval tofts. To the W these features are aligned along the S side of a holloway. To the N the latter is defined by a raised bank, which also marks the S limit of an area of ridge and furrow. This area of occupation does not appear on the Tithe Map where the focus of occupation clusters around the junction of the Woburn Road and the road leading to the church, infilling the former green. The map shows that by this time a squatter development had sprung up along the main road to the NE of the study area.

Further afield lay a series of ends to the main settlement, including Wood End, Wootton Green and Pillinge. A lane adjacent to the study area is shown on Jefferys' map of 1765 linking the village of Marston with Wood End and with the moated site of Beancroft Farm to the N and W. Today the route of this lane is preserved by a public footpath. Wood End is now accessed by a road further W and Beancroft Farm has been isolated from Wood End by the insertion of the Cranfield Road (Fig 1).

THE FIELDWORK

FIELD SURVEY

The first stage of the fieldwork comprised an earthwork survey supplemented by evidence from aerial photography. A leat running NE from Moreteyne Manor and emptying into a pond on the NE side of the field divided the study area into two parts. The northern two thirds of the area were characterised solely by NW-SE running ridge and furrow, identifiable only from aerial photographs (HER 2791). Despite considerable amounts of modern disturbance, together with three ponds and their associated upcast, several linear features, apparently continuous with the ploughing to the N, were recorded in the southern third of the site. A separate phase of occupation was indicated by the presence of two house platforms. The larger of these lay in the S corner of the field with a second one 30m to the N.

THE EXCAVATION

Following the field survey a series of eight evaluation trenches was excavated across the study area in order to define the character, extent and state of preservation of any below ground archaeological remains. A concentration of medieval occupation activity, comprising a sequence of boundary ditches and several structures, was located in the southern part of the study area.

On the basis of these findings the County Heritage Officer stipulated an open area excavation within the footprint of the proposed access road in the southern third of the study area. Stripping was carried out by machine over a total of 325sqm, along the line of the road and along a tangential sewer pipe trench to the SE. 200mm-250mm of topsoil and 300mm-350mm of mid-orange brown subsoil were removed to reveal the archaeological deposits. The subsoil was present in all but the SE half of the sewer pipe trench. The stripped area was further cleaned by hand and a pre-excavation plan made of the visible archaeological features at a scale of 1:200.

The archaeological features recorded within the relatively small excavation area, were generally isolated with few stratigraphic relationships. This, together with the broad date ranges of the recovered artefacts, made it difficult to determine precisely the chronological sequence of the deposits. The latter has, therefore, relied largely on the interpretation of spatial relationships and to a lesser extent on typological variations in the structural evidence.

Phase One: Unenclosed Settlement

(early medieval, c.12th-13th century, Fig 3)

The earliest identifiable phase of occupation comprises the partial footprints of four timber buildings. Two of these were ranged along Woburn Road (Buildings 1 and 4); the others (Buildings 2 and 3) were sited at right angles to this along the former lane to Wood End. No boundaries have been identified in association with these structures and it is possible that they lay in an unenclosed area of ground.

Buildings 1, 3 and 4 show similar construction techniques involving the use of ground beams and upright posts, both at the corners and at intervals along the walls. Given the limited size of the area of excavation, it was not possible to determine their overall form or dimensions. Building 1 lay closest to the road, with a fence around its NE corner, whilst Building 4, 32m NE, was set up to 9m further back from the frontage. Access for Buildings 2

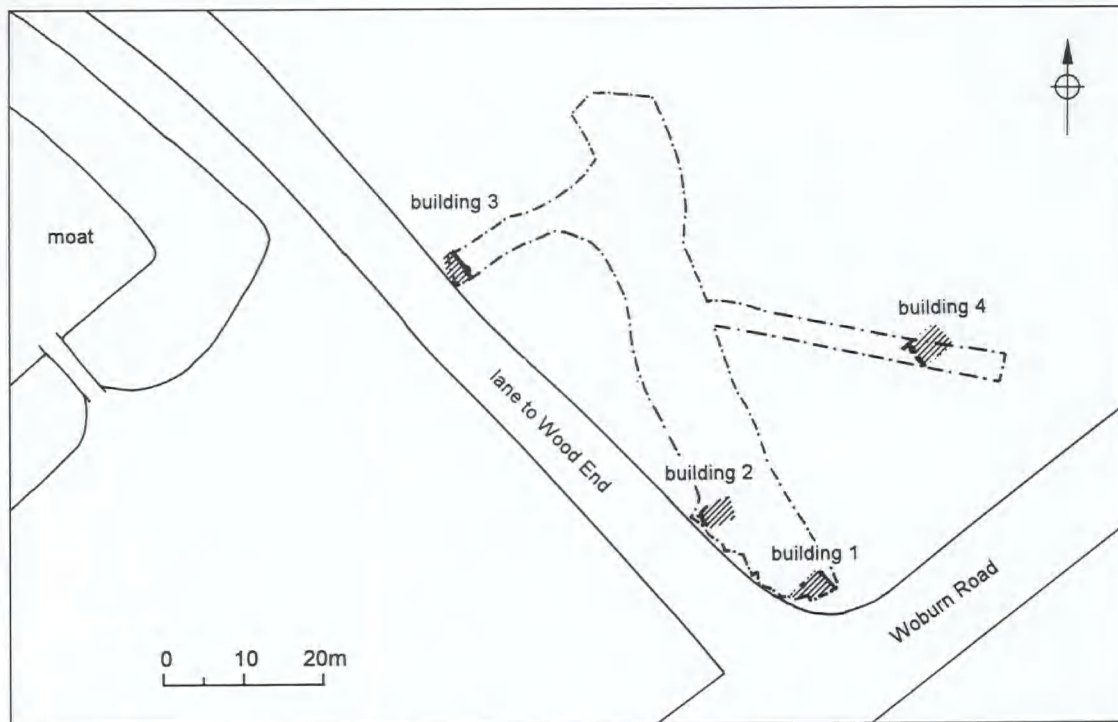


Figure 3 Phase One: Unenclosed Settlement

and 3 was presumably from the lane to Wood End. Although only the NW corner of Building 2 survived, the walls displayed a more frequent use of upright posts with planked walls, beneath which a gully appeared to have eroded. The difference between this technique and that used in the other contemporary buildings is thought to reflect a functional rather than a chronological variation. As there is no evidence for repairs to any of these buildings they may have had a limited lifespan. The pottery assemblages found in association with the disuse fills of the buildings are largely 11th-13th century in date.

Phase Two: Establishment of Closes (early medieval, c.12th-13th century, Fig 4)

In the succeeding phase of activity the area of occupation shifted away from the lane and focussed on the S corner of the study area on the plot of ground previously occupied by Building 1. The latter was replaced by a more substantial SW-NE aligned structure (Building 5), which coincides with the larger of the house platforms identified by the earthwork survey. This building has a similar alignment to a sequence of ditches bounding the ground to the rear of the platform.

Building 5 was a timber-built structure measuring at least 7.5m x 3.65m, with an associated boundary gully, 4m from its S wall. The timber posts for the side walls were not directly opposed and there were no obvious internal divisions. Wide, opposed entrances in its side walls and the apparent presence of an aisled southern side suggest this building may have functioned as a barn. Associated finds included 12th-13th century pottery, quern fragments, animal bone and charcoal which came from packing material associated with the building's construction and from the deliberately infilled deposits associated with its disuse. The gully to the S is thought to be a shallow boundary ranged along the road frontage and is associated with two post holes along its N side, representing contemporary activity of an undefined form.

The 14m x 10m area to the rear of Building 5 was a probable yard, devoid of structural remains. This was defined on its N side by Boundary 1 which exhibited several phases of re-cutting. In its original form it comprised a 260mm deep ditch with a concave profile. Over a period of time this silted up necessitating the re-cutting of a second deeper (400mm) feature to the S of the main one. Material excavated during the construction of the second

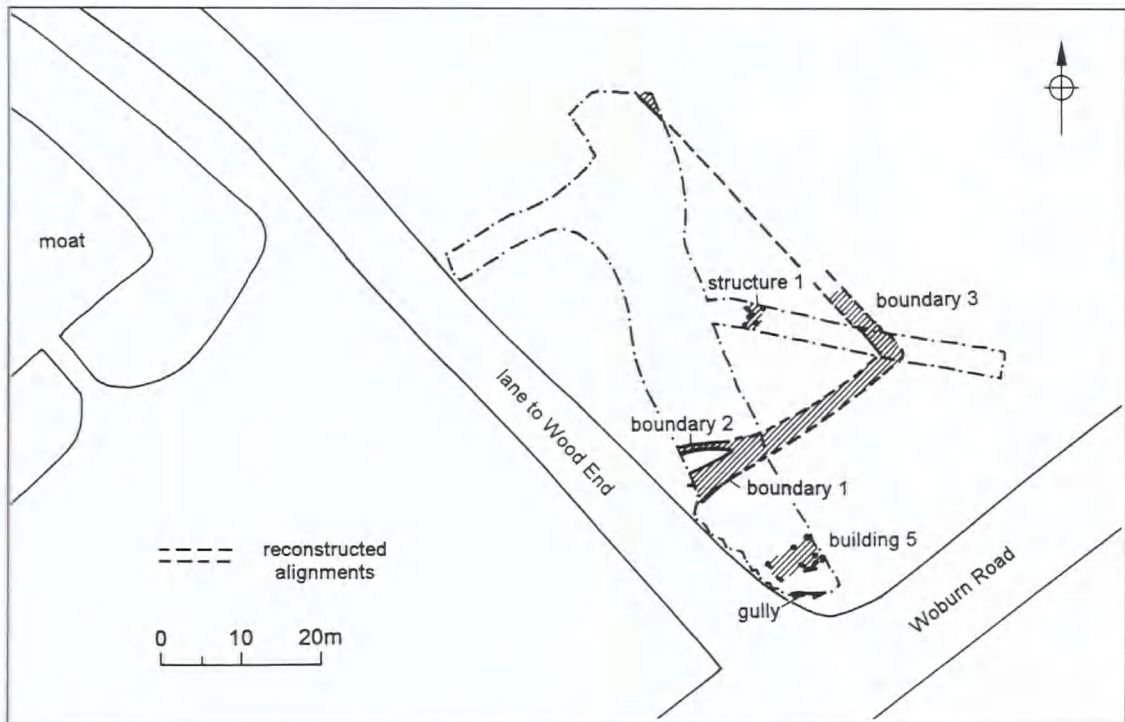


Figure 4 Phase Two: Establishment of Closes

ditch was dumped into the partially infilled earlier ditch. Sealing this was an accumulation of naturally deposited material intermixed with domestic debris which eventually infilled the channel and the boundary was defined for a third time by a shallower (150mm deep) ditch. The consistent shifting of the boundary southwards suggests the existence of an associated hedge or bank to the N which precluded re-cutting on that side. A subsidiary, obliquely-aligned ditch, Boundary 2 ran from the W and drained into Boundary 1, perhaps taking water away from the adjacent lane.

On a wider scale Boundary 1 lay within a more extensive enclosure system, part of which is represented by a roughly perpendicular ditch Boundary 3. This runs NW for at least 46.5m and, although not fully excavated, appears to have been shallower than Boundary 1. The function of the land to the N of the plot occupied by Building 5 is unclear. The presence of a timber structure (Structure 1) within the crook of the two ditches would, however, seem to preclude its use as ploughed land. Only a partial ground plan of Structure 1 was recovered, including five post holes and a slot or gully with a general ENE-WSW trend. A concentration of charred seeds in the latter

probably derived from one or more episodes of small scale crop processing.

Phase Three: Arable Cultivation

(early medieval, c.12th-13th century, Fig 5)

In the third phase of activity the enclosure ditches were modified by a shift in alignment to a general ENE-WSW axis. This change coincided with the first tangible evidence for ploughing in the N part of the site. To the E Pond 1 appears to have been open and was probably fed by the naturally high water table.

The shift in the alignment of the boundaries is most noticeable in the replacement of Boundary 1 by a second similar sequence of ditches (Boundary 4) 4m further S and traceable for 35m in length. Like its predecessor Boundary 4 is thought to have had an associated bank or hedge along its NNW side and several episodes of re-cutting. This boundary was first marked by a shallow sided cut that silted up and was replaced by a 540mm deep asymmetrical ditch, with a stepped N side and a concave base. A mixed assemblage of 11th-14th century pottery was recovered from the fill of this recut. The quantity of the assemblage is sufficient enough to suggest Building 5 continued in use and may be

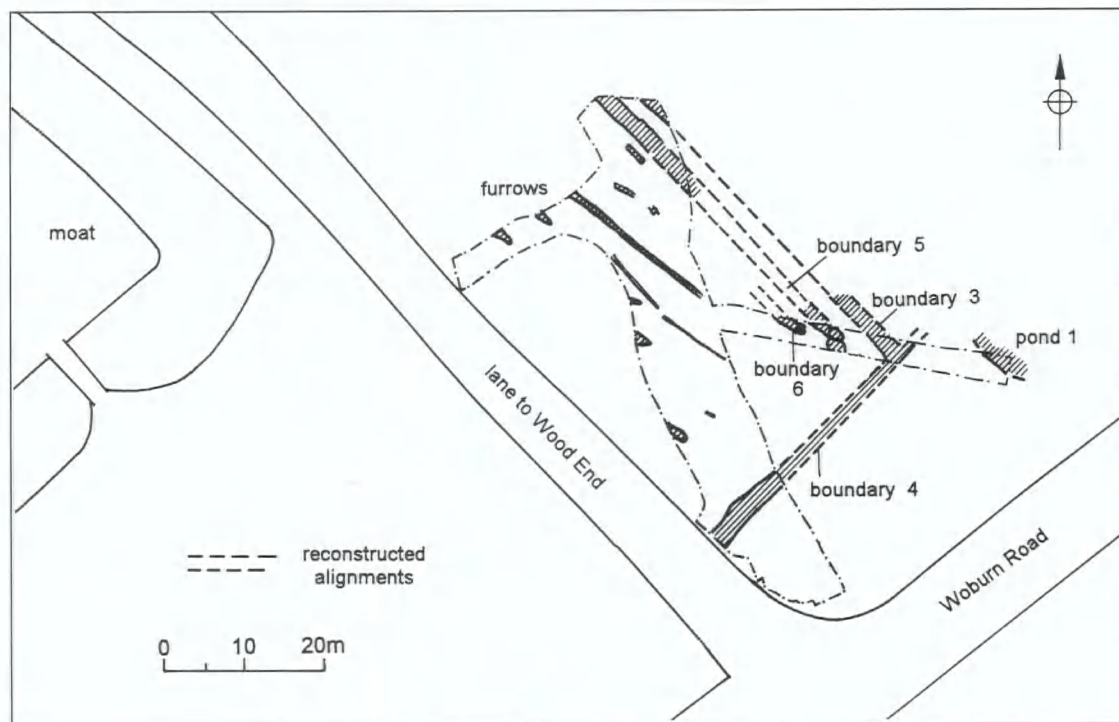


Figure 5 Phase Three: Arable Cultivation

evidence for it undergoing a change in function. During its life Boundary 4 was re-dug once more with a considerably shallower, concave profile.

Boundary 3 is believed to have survived during this phase as a relict feature in the landscape to the N of Boundary 4 and influenced the positioning of several other ditches. Amongst these is Boundary 5 which sits 3m W of its predecessor in the N of the excavated area. This ditch had a 650mm deep, steep sided profile and was at least 41m long. It terminated 7m short of Boundary 4 where there appears to have been an entrance. At that point two intercutting sumps helped to drain the southern end of the ditch. An accumulation of naturally derived fills led to its replacement by a narrower, shallower channel. A limited amount of associated activity occurs in the N along the western side of the ditch, including the digging of a sub-rectangular shaped pit of indeterminate function. This was allowed to infilled over time, incorporating material from the surrounding land surface.

The enclosed ground N of Boundary 4 contains a series of furrows spaced 4m apart aligned perpendicular to the boundary. There is a 7m gap between the apparent limit of some of these features and the boundary ditch, presumably marking the position of

the original headland. Of likely medieval origin, some of the furrows probably represent ploughing over a considerable period of time. Steam ploughing is known to have been used during the early part of this century in this field. This may have brought the cultivated area closer to the present road frontage, as the aerial photographic evidence suggests.

Questions remain as to the exact function and phasing of two shallow, intercutting ditches (Boundary 6), a limited view of which was obtained from the N of the sewer trench. They share the orientation of Boundary 5 but are staggered to the W of it and terminate 3m short of the sumps. The earliest ditch of Boundary 6 was deliberately infilled and its position shifted further W.

Phase Four: Period of Abandonment (high medieval, c.13th-14th centuries)

The ceramics evidence (Table 1) suggests a hiatus between the early medieval period and the succeeding activity in Phase 5 dated to the 14th-15th centuries. The disuse fills of the latest forms of Boundaries 4, 5 and 6 produced little artefactual evidence, suggesting that settlement activity in the immediate vicinity was at a lower level than in the

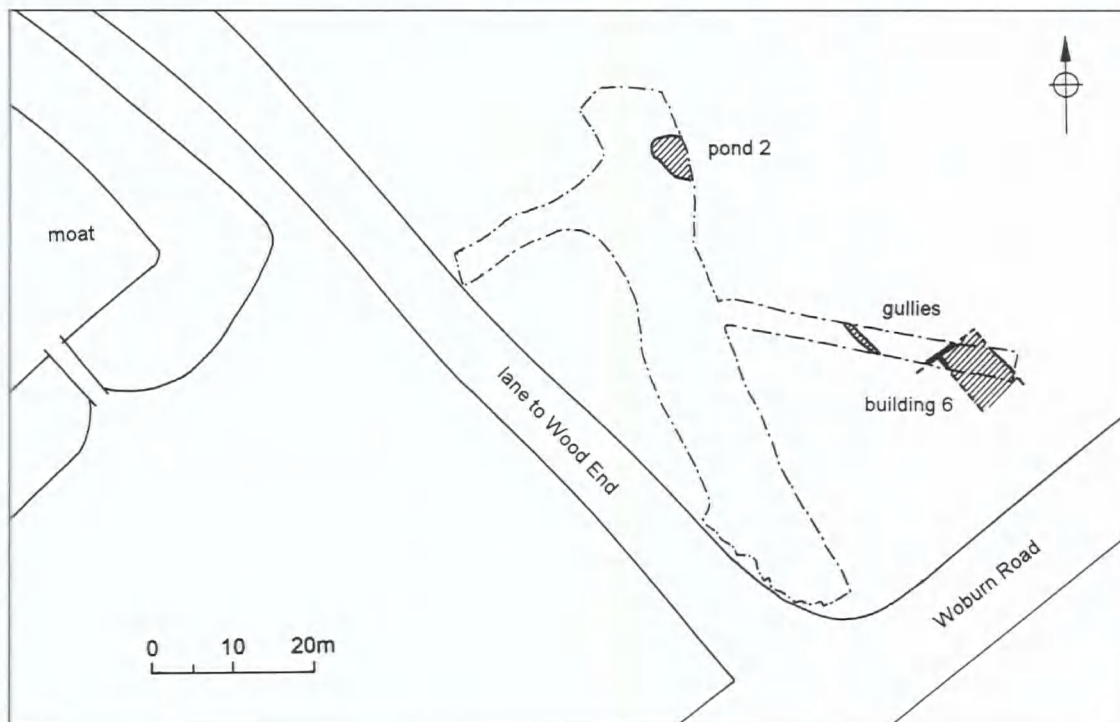


Figure 6 Phase Five: Construction of Barn

preceding phases. It may be that the field system, of which Boundaries 4, 5 and 6 formed a part, was abandoned at this time, or that the land was used as rough pasture.

Phase Five: Construction of Barn

(late medieval, c.14th-15th centuries, Fig 6)

Pond 1 was deliberately infilled with a dump of raw Greensand blocks to enable the construction of a rectangular shaped building (Building 6) on the margins of the pond's former W bank. This imposition implies that land available for building in this part of the field was limited by either land tenure or usage. Building 6 was at least 8m long and 5.5m wide. It was founded on a shallow plinth of limestone slabs and blocks, with occasional inclusions of mudstone, brick and tile fragments, set in a shallow trench. These footings presumably carried a timber frame set on a sill beam. A small post setting in the fabric of the E wall may have been part of a fixture of the building, perhaps a door frame. A drainage gully ran along the exposed N side of the building. In plan this gully lies perpendicular to a second example of similar size, 6m NW and the two are thought to be contemporary. Their line oversails that of Boundary 4 which was

presumably no longer in use. Slag and vitrified clay found within the silted fills of the drainage gully attest to the presence of smithing activity in the near vicinity although not necessarily within this building. The limited finds recovered from this building, including a number of 14th-15th century potsherds and some animal bone, has led to its interpretation as a barn.

Pond 2 on the N edge of the excavation area may have replaced the earlier one to the S.

Phase Six: Agrarian Landscape

(post-medieval, c.16th century to present)

By this date the barn appears to have been abandoned and the northernmost pond deliberately infilled. Naturally silted fills subsequently accumulated above the latter, suggesting that activity during this period was limited to either ploughing or stock grazing. An upper deposit of sandy material sealing the silted fills represents an effort to stabilise the upper surface of Pond 2. This may have been deposited as recently as this century when this field was used as a dumping ground for various materials.

CERAMIC ARTEFACTS

Jackie Wells

INTRODUCTION

Excavation produced 513 sherds of pottery, representing 448 individual vessels, of which 445 were hand-collected during excavation; the remainder were sieved from soil samples. The total weight of the material recovered was 4.45kg. Additionally, 47 fragments of late/post-medieval flat roof tile and twelve fragments of brick (total weight 5.91kg) were recovered.

The pottery was examined by context and sorted into 30 fabrics, according to the Bedfordshire Ceramic Type Series which is held by BCAS. The assemblage was quantified by minimum vessel and sherd count, estimated vessel equivalent (EVE) and weight. Brick and tile was examined by context and quantified by sherd count and weight. Both the pottery and the ceramic building material are tabulated by phase and structural group below (Table 1).

Examination of attributes including extent of abrasion, presence/absence of residues, sooting and wear marks was undertaken to provide an indication of the function of the pottery. Measurements were taken where possible on tile fragments which retained a finished edge, although the assemblage proved too fragmentary for calculation of the number or probable size of most examples. The majority of the brick and tile assemblage is abraded, and those fragments containing calcareous inclusions are leached.

CERAMIC TYPE SERIES

Fabrics are listed below in approximate chronological order, using the type codes and common names in the Bedfordshire Type Series. As all pottery types are previously recognised and fully described elsewhere, only brief fabric descriptions are given. CBM denotes ceramic building material.

Late 'Belgic' Iron Age (c.BC 50-50 AD)

Type F08 Shell and grog tempered

Fully described in Dawson *et al* (1988, 11).

Forms: hand-made, but otherwise indistinguishable.

Source: unknown, probably local.

Type F09 Sand and grog tempered

Fully described in Dawson *et al* (1988, 13).

Forms: hand-made, but otherwise indistinguishable

Source: unknown, probably local.

Roman (1st-4th century)

Type R06 Grey ware

Fabric: a generic fabric group for Roman sand-tempered grey

ware vessels. Extremely prolific throughout the county e.g. Sandy, Ruxox, Kempston (BCAS forthcoming).

Forms: wheel-thrown, but otherwise indistinguishable

Source: unknown.

Type R13 Roman shelly

Fully described in Brown (1994).

Forms: wheel-thrown cooking pots and storage jars with everted and undercut rims

Source: Lodge Farm, Harrold, Beds. (Brown 1994).

Saxo-Norman (10th-11th century)

Type B01 St Neots-type ware

Fully classified by Hurst (1956) and discussed more recently by Hunter (1979) and Denham (1985). Examples from Bedford are described by Baker and Hassall (1979, 165).

Forms: wheel-thrown bowls with inturned and hammer-headed rims, and everted rimmed jars.

Source: Although no kiln sites are known, St Neots-type vessels are widely distributed throughout a core area in the S and E Midlands and have been recovered from numerous excavations on settlement sites in the valley of the Great Ouse and its tributaries. Kilns are believed to have been sited to exploit deposits of the fossil shell which served to temper the fabric (McCarthy 1979), and a possible source close to Northampton has been suggested (Mellor 1994, 56).

Type B01C St Neots-type ware

Fabric: fairly smooth, patchy buff-grey-brown fabric with inclusions of sparse quartz and red and black iron ore in addition to abundant shell. First recognised at the Saxon and medieval settlement of Stratton, Biggleswade; a full description will be published in that report (BCAS in prep).

Forms: wheel-thrown, everted rimmed jars

Source: as B01.

Type B04 St Neots-type ware

Fully described by Baker and Hassall (1979, 167). Similar to fabric T1(3) at Northampton (Denham (1985, 54).

Forms: wheel-thrown jar with everted rim

Source: as B01.

Type C12 Stamford ware

Fully described in Kilmurry (1980). Fabric B (Kilmurry 1980, 8), with a thin, glossy light yellow, Type 1 glaze (1980, 11).

Forms: wheel-thrown, but otherwise indistinguishable

Source: Stamford, Lincs (Kilmurry 1980).

Early Medieval (12th-13th century)

Type C61 Calcareous inclusions

Fabric: fairly smooth, grey-brown fabric with buff-grey core. Characterised by the presence of frequent chalky inclusions, in addition to quartz and iron ore. First recognised at Stratton; a full description will be published in that report (BCAS in prep)

Forms: hand-made, but otherwise indistinguishable

Source: unknown

Type C67 Mixed inclusions

Fabric: Fairly hard fabric with variable buff-grey-orange patchy surfaces. Ill-sorted quartz, organic matter, calcareous inclusions, iron ore and abundant mica characterise the fabric and are found together or in a combination of any of the above. First recognised at Stratton; a full description will be published in that report (BCAS in prep).

PHASE		CERAMIC FABRIC TYPES																									TOTAL								
		Pre-Saxon				Saxo-Norman				Early medieval								High medieval				Late medieval													
		F08	F09	R06	R13	B01	B01C	B04	C12	C61	C67	C01	C02	C03	C59B	C12A	C60	B07	C53	C05	B09	C09	C71	C75	CBM 1	CBM 2		CBM 3	CBM 4	E01	E01D	E02	E03	P01	P25
6	Topsoil															1																			5
6	Subsoil	2	1	9	5	22			1			16		10	2	1	8	10	4	3				2	1			3		7		2		1	106
6	Pond 2			1															1															2	
5	Building 6					10								2			1	3							17	7	4	4	1		2	1	1		53
5	Pond 1																								3		7							10	
4	Boundary 6													1			1																	2	
4	Boundary 5			1		2						1																	1					5	
4	Furrows			3	1	4						3		2	1		4	3		1									3					25	
3	Boundary 4					1	1	1		1		10	3	19			15	17	1	3		1	2	1		1								77	
3	Boundary 3			1															1															3	
2	Boundary 1										1	8		2			13	14					2											40	
2	Boundary 2					3	1					9		1			14	2	1															31	
2	Building 5					29	2	1		1		10	1	8			1	6	2															61	
1	Building 3					17	1	2											2		1													23	
1	Building 4					1						1					2			1						1	1				1			8	
1	Building 1					4						3		1			2	1	1															12	
	TOTAL	2	1	15	6	93	5	4	1	2	1	61	4	46	3	1	62	58	11	8	1	1	4	3	21	9	13	7	12	1	5	1	1	1	

Table 1 Pottery and Ceramic Building Material by Phase and Structural Group

Forms: hand-made jar with everted rim

Source: unknown.

Detailed study of the ceramic assemblage from the medieval settlement at Stratton may help to determine sources and refine dating for these two fabrics. They have, to date, been broadly assigned, by association with other fabrics of more certain date, to the early medieval period.

Type C01 Light orange sandy

Fully described by Baker and Hassall (1979, 171)

Forms: wheel-thrown jug and jars with everted rims

Source: unknown, probably local as well attested from excavations throughout the county.

Type C02 Red quartz inclusions

Fully described by Baker and Hassall (1979, 171)

Forms: wheel-thrown, plain-rimmed jar

Source: unknown.

Type C03 Medieval sandy

Fully described by Baker and Hassall (1979, 171)

Forms: wheel-made jar with everted rim

Source: as C01.

Type C59B Early medieval sandy harsh

Fully described by Brine (1988, 43)

Forms: usually hand-made or part wheel-thrown; Marston examples are a wheel-thrown jar with everted rim

Source: unknown, probably local.

Type C12A Developed Stamford ware

Fully described in Kilmurry (1980). Fabric C (Kilmurry 1980, 9), with a fairly thick, speckled, bright green, Type 3 glaze, produced by the addition of copper (1980, 11).

Forms: wheel-thrown, but otherwise indistinguishable

Source: as C12.

Type C60 Hertfordshire-type grey ware

Examples from Bedfordshire are described by Brine (1988, 43). This type is further discussed by Havercroft and Turner-Rugg (1987).

Forms: wheel-thrown jar with everted rim

Source: unknown, although vessels are in the same tradition as greywares produced at kilns in St. Albans, Herts.

Type B07 Medieval shelly ware (developed St Neots-type ware)

Discussed by Hall (1972) and fully described by Baker and Hassall (1979, 167).

Forms: wheel-made jar and bowls, derived from the St Neots tradition

Source: thought to have derived from manufacturing sites at Olney (Bucks) and Harrold (Beds), which produced a range of domestic wares throughout the early medieval period (Hall 1972).

Type C53 Medieval sandy

Fully described by Baker and Hassall (1979, 172)

Forms: wheel-made, but otherwise indistinguishable

Source: as C01.

Type C05 Medieval sandy

Fully described by Baker and Hassall (1979, 172).

Forms: wheel-made jar

Source: unknown.

High Medieval (13th-14th century)

Type B09 Lyveden ware

Fully described by Webster (1975)

Forms: wheel-made, but otherwise indistinguishable

Source: Lyveden, Northants. (Webster 1975).

Type C09 Brill-Boarstall ware

Discussed fully by Jope (1953) and Ivens (1982)

Forms: wheel-made, but otherwise indistinguishable

Source: Brill and Boarstall, Bucks. (Ivens 1982).

Type C71 Buff-grey cored sandy

Fabric: distinctive, rough fabric with buff-orange surfaces and a characteristic buff-grey core. Contains frequent, well-sorted quartz and rare red inclusions (?iron ore). First recognised at Stratton, a full description will be published in that report (BCAS in prep).

Forms: wheel-made jar with everted rim

Source: unknown

Type C75 Micaceous

Fabric: fairly smooth with mid-dark grey to grey-brown surfaces and a grey-brown core. Contains frequent quartz and abundant fine white mica, which is particularly visible on the surfaces. First recognised at Stratton; a full description will be published in that report (BCAS in prep)

Forms: wheel-made, but otherwise indistinguishable

Source: unknown

Late Medieval (14th-15th century)

Ceramic building material (CBM) Type 1 Sandy

Fabric: Hard fired, fairly fine fabric, orange throughout, turning to brick-red where over-fired. Generally finely tempered, although some fragments are coarsely made and contain angular quartz of up to 6.0mm in size. Contains frequent, well-sorted, sub-angular multi-coloured quartz c.0.2-0.5mm and dark red and black iron ore c.0.1-0.3mm. Also rare angular flint inclusions of up to 5mm in size. Vitrified examples of this type, which are very hard fired with purple to purple-brown surfaces and core occur. Surfaces occasionally bear patches of unintentional off-white glazing, which has occurred as a result of the reaction of silica in the clay to the high firing temperature. Inclusions within these examples have almost fused, although well-sorted, sub-angular quartz remains distinguishable. No other inclusions are visible. Vitrified examples do not occur in sufficient quantities to have been classified as a separate type.

Source: it is possible that quartz inclusions found in sandy types derive from the Greensand ridge. Although no production centres are known, sand tempered tiles may have been manufactured within the vicinity of the ridge.

CBM Type 2 Gault Clay

Fabric: Fairly hard fired, smooth, fine fabric, off-white/grey to yellow throughout, turning to pale pink when oxidised. Contains sparse angular to sub-angular quartz c. 0.1-0.3mm and sub-rounded red and black iron ore c. 0.1-0.2mm.

Source: this type originates in the Gault Clay area which runs through the county from Leighton Buzzard in the SW to Wrestlingworth in the NE.

CBM Type 3 Sand and Calcareous inclusions

Fabric: Fairly hard fired, often gritty fabric, with variable orange to light red-brown surfaces and core. Contains frequent,

ill-sorted calcareous inclusions of up to 2.0mm, frequent, well-sorted, sub-angular multi-coloured quartz c. 0.1-0.3mm and dark red and black iron ore c. 0.1-0.3mm. Also rare angular white flint inclusions of up to 5mm. Examples in this type are often characterised by a vesicular surface appearance, caused by the firing or leaching out of calcareous inclusions.
Source: unknown, probably local.

CBM Type 4 Blue-grey cored Sandy

This is a generic grouping which covers both fine (type 4A) and gritty (type 4B) fabrics characterised by a distinctive blue-grey core.

A Fine Sandy

Fabric: Hard fired, fairly smooth fabric with bright orange to dark red-brown surfaces, characterised by a distinctive blue-grey core. Contains variable multi-coloured sub-angular quartz c. 0.1-0.5mm and unevenly sized red iron ore c. 0.5-1.0mm.

B Gritty Sandy

Fabric: Hard fired gritty fabric, with orange to light brown surfaces and distinctive blue-grey core. Contains frequent sub-angular quartz c. 0.1-0.5mm and rounded red and black iron ore c. 0.1-0.3mm. Gritty examples occasionally contain rare calcareous inclusions and are sometimes characterised by a vesicular surface appearance, caused by the firing or leaching out of this material.

Source: unknown, probably local.

Type E01 Late medieval reduced ware

Described by Baker and Hassall (1979, 212) and fully discussed by Mynard *et al* (1983).

Forms: wheel-made jar with everted rim

Source: as E01D.

Type E01D Late medieval reduced ware

Fabric: hard fired, with black surfaces and a grey core. Characterised by distinctive brick-red margins. Contains frequent quartz and rare iron ore. First recognised at Stratton; a full description will be published in that report (BCAS in prep).

Forms: wheel-made, thin walled jar with horizontal groove on shoulder

Source: E01 and E01D are of the East Midlands late medieval reduced ware tradition, first identified and discussed by Moorhouse (1974). Kilns are known in Bedfordshire at Flitwick, on the lower Greensand in the S of the county, and at Everton, also on the Greensand ridge in the E of the county. Kiln sites in neighbouring counties producing wares in the same tradition are known at Higham Ferrers, Northants., and Great Brickhill, Bucks. (Mynard *et al* 1983, 83).

Type E02 Late medieval oxidised ware

Fully described by Baker and Hassall (1979, 212)

Forms: wheel-made jar with upright rim

Source: unknown, although its prevalence at sites across the county suggests a local origin.

Type E03 Late medieval smooth ware

Fully described by Baker and Hassall (1979, 214)

Forms: wheel-made, but otherwise indistinguishable

Source: as E02.

Post-medieval (16th-18th century)

Single intrusive vessels of glazed red earthenware (type P01) and Frechen stoneware (type P25) were recovered.

DISCUSSION

The small size of the ceramic assemblage precludes detailed statistical treatment. However, the proportions and types of fabrics within each phase are detailed in Table 1, which provides the structure for the following discussion. Quantification of pottery and building material is by vessel and fragment count respectively. The scarcity of inter-cutting features and difficulties in refining date ranges for the pottery have made it difficult to produce a precisely defined phasing structure. For this reason, discussion of the ceramic evidence is by broad chronological groups spanning the early and high medieval (Phases 1-4) and late medieval periods (Phase 5). Material from Phase 6 derives almost entirely from subsoil, and consequently has little interpretative value.

The small quantity of late Iron Age and Roman material is either unstratified, or residual within later contexts. This is suggestive of sporadic activity at the site from an early date. A prolonged later prehistoric presence within the vicinity is evidenced at Beancroft Road, from which a sizeable assemblage of 'Belgic' late Iron Age pottery has been recovered (Shotliff and Crick 1999: this volume).

Early and High Medieval (Phases 1-4)

The early medieval assemblage is characterised by local sand tempered coarsewares (C01, C02, C03, C59A, C59B, C60, C53 and C05). Among these, types C01, C03 and C60 are predominant, constituting 64% of the group. Shell tempered developed St Neots type (B07) totals a further 23%. Fabrics C01 and C03 belong to a long-lived tradition which is broadly contemporary with the developed St Neots type. Sandy vessels in fabrics C61, C67, C71 and C75, first recognised at the medieval settlement of Stratton, Biggleswade, are also present (BCAS in prep).

The range of coarseware forms is typical of the period, comprising basic utilitarian vessels such as jars and bowls copying the Saxo-Norman St Neots type tradition, and incorporating new forms, such as jugs in fabric C01. The dearth of glazed or decorated wares reinforces the highly functional nature of the group; fine tablewares (types C09 and C12A) constitute approximately 1% of the assemblage.

Fifty-eight vessels, mainly within Phases 1 and 2, are shell tempered wares of St Neots type (fabrics B01 and B01C) and the broadly contemporary harsh shelly ware (type B04). Vessels occur in a limited

range of basic forms, likely to represent kitchen-ware. The sherds are generally small and abraded, and the vessel to sherd ratio (97:122) indicates disturbance of the material and highlights the residual nature of the Saxo-Norman assemblage. The majority of the St Neots type vessels were recovered from the disuse fills of Buildings 3 and 5.

Fifty-three vessels, approximately 12% of the assemblage, bear traces of sooting, which, in most cases is confined to exterior surfaces, indicating their use as cooking pots. It can be suggested that those vessels which are unsooted were used for storage and food consumption. Sooting on the interior of four vessels indicates either deliberate or accidental burning of contents. The incidence of sooted vessels is restricted to pottery of Saxo-Norman and early medieval date. The absence of sooting from later medieval pots reflects an increase in the use of metal cooking vessels, which, by the mid 14th century, had become standard equipment in most households (Lewis *et al* 1987, 88-9).

Two jars in early medieval types C01 and C03 have small holes drilled, post-firing, through the vessel neck and base respectively. The former may represent an attempt to repair a cracked or broken vessel, the latter may indicate the re-use or conversion of a vessel to a strainer. Attempts to prolong the useful life of a pot, either through repair or secondary use, serve to further reinforce the utilitarian nature of the assemblage, and suggest that access to new pottery may have been limited.

Early and high medieval material derives mainly from the disuse fills of Boundaries 1, 3 and 4, and from Building 5. The presence of pottery of the same date range within both construction deposits and disuse fills of the latter, suggests a limited period of occupation/activity.

Two fragments of building material recovered from the disuse fills of Building 4 may be considered intrusive.

The ceramic assemblage suggests a hiatus of activity at the end of Phase 3, prior to the construction of Building 6 in the later medieval period. This is consistent with a conversion to arable land usage in the interim.

Late Medieval (Phase 5)

The small Phase 5 assemblage (4 vessels) derives mainly from deposits relating to the construction of Building 6, and comprises locally manufactured reduced and oxidised sand tempered fabrics (E01, E02 and E03). The presence of brick and roof tile within construction deposits shows Building 6 to be

a more substantial structure than those of the preceding phases, which appear to have been entirely timber-built, with probable thatched roofs.

REGISTERED AND NON-CERAMIC BULK ARTEFACTS

Jackie Wells

INTRODUCTION

Excavation produced a total of 11 registered artefacts; non-ceramic bulk artefacts comprised six iron nails and 1.62kg of ferrous metalworking debris. All iron objects were submitted for X-radiography to Adrian Tribe of the Institute of Archaeology. The X-ray plates and assessment cards form part of the site archive.

The registered artefacts were assigned broad terms and functional categories, the latter after Crummy (1983), in accordance with the Bedfordshire Artefact Typology. Within these categories, each object has been fully described, a scale record drawing completed and, where possible, a date range assigned. Similarly, bulk finds were identified, quantified and, where possible, assigned a date range.

The catalogue is organised by functional category with respective broad term components, in typological date order within each group. Where relevant, details of form, manufacture, parallels and suggested date have been discussed. The coding which prefixes each entry contains the following information:

201	Layer	Building 5	Phase 3
registered	context type	structural group	phase
artefact number			

Select artefacts are listed below. In all cases measurements give the maximum surviving artefact length unless otherwise stated.

CATALOGUE

Household utensils and furniture

207 fill of Pond 1, Phase 4, Iron ?bucket/tub handle mount. Slightly curved rectangular strip with three rivet holes and *in situ* rivets, surmounted by a central square-sectioned suspension loop. Possible traces of mineral preserved wood are present between the rivet heads and the strip. Length: 124.2mm.

No precise parallels were found for this object. It most closely resembles a tub-handle mount of Roman date, recovered from

Borough Hill, Northants (Manning 1985, 103 & Plate 49, P28). There is no doubt, due to the presence of mineral preserved wood, that the object is a mount for a handle on a wooden vessel. Its size and design, however, may suggest that the object derived from a larger wooden item such as a tub or barrel. Bucket fittings of both Roman and medieval date more usually take the form of simple U-shaped loops and eyed straps, which served to strengthen the holes in wooden staves through which bucket handles passed.

210 fill of post hole, Building 5, Phase 2, *Sandstone rotary quern fragments*. Four fragments (two joining) of ?upper stone, highly friable, worn and in poor condition. The surfaces of two fragments show signs of burning. Weight: 3204gms, max. thickness 56.0mm.

211 fill of post hole, Building 5, Phase 2, *Lava rotary quern fragment*. Roughly rectangular in shape and section. Retains one surface which is uneven, pitted and worn. Weight: 194gms, max. thickness 25.6mm.

Quern fragment 211 is manufactured from imported material of continental origin; deriving from either the Mayen quarries of Germany, or from French lava outcrops found near Volvic (King 1986, 94). During the Roman period, there was considerable trade with Britain, which although ceasing in the early Saxon period, was well established by the 9th/10th century and continued throughout the medieval period (Crummey 1983, 75). Although distinct date ranges, based on form, have been recognised (King 1986, 95), it has been impossible, due to the incomplete nature of the example, to determine date. The recovery of 211 in association with pottery of the Saxo-Norman and early medieval periods may suggest that the fragment is of similar date, although this cannot be demonstrated with any certainty. Coarse-grained sandstone, from which 210 is made is likely to have been obtained locally.

Fasteners and Fittings

The fragmentary remains of six iron nails were recovered. All have square sectioned shanks with rounded tips and are hand-wrought. A single classifiable example has been identified as a type 1 flat headed medieval timber nail (after Goodall 1980, 107).

Craft and Industry

Metalworking residues

A small quantity (total weight 1.62kg) of ferrous slag and vitrified clay hearth lining was recovered. The former is largely undiagnostic, however, in conjunction with the hearth lining remains, is likely to represent the debris from iron smithing activity. A single portion of a plano-convex hearth bottom, recovered from fill of drainage gully, Building 6, Phase 4, is clearly indicative of this process. The fragment is approximately 40mm in depth and 70mm in width. A number of fragments of ferrous slag bear traces of mineralised organic material. None of the metalworking residues were recovered *in situ*, having been redeposited within the fills of ditches. This secondary redeposition of slags is not uncommon, presumably resulting from the periodic cleaning of hearths and surrounding areas.

Multi-purpose tools

204 fill of Boundary 5, Phase 3, *Composite bone and iron ?knife handle*. Three fragments of polished bone handle, with

traces of an iron whittle-tang and part of the blade present. Highly fragmentary. Length: 56.8mm.

205 fill of Boundary 5, Phase 3, *Composite bone and iron end cap*. Slightly domed, polished bone disc, centrally perforated by a stubby, tapering, rectangular-sectioned iron pin. Length: 16.0mm, diameter of disc 16.6mm.

Although not joining, their recovery from within the same context suggests that 204 and 205 derive from the same object. Whittle-tang knives were the most common type in use in the early medieval period; their use continued contemporaneously with scale-tang knives into the early 15th century. Whittle-tang handles were fixed by pushing the pointed end of the knife tang into the handle, where it was either burnt into position or held in place with glue or wedges (Cowgill *et al* 1987, 25).

Animal trappings and transportation

206 fill of Boundary 1, Phase 3, *Iron horseshoe*. Complete shoe with a broad web (c. 30mm at the widest point), tapering slightly towards the heel. Six rectangular nail holes arranged three/three, each retaining fragments of rectangular-headed nails. One branch has a calkin of either 'thickened' or right-angle type. Length: 110.5mm.

206 is a late medieval Type 4 horseshoe, as defined by Clark (1995, 88). Evidence from excavations in London suggests an introduction of this type during the mid 14th century and its universal use throughout the 15th and into the 16th century (Clark 1995, 97).

Wide-ranging uses

This group includes objects whose specific use is only ascertainable if found in direct association with diagnostic objects. Typological dating is usually impossible. A distorted iron strip 203 was recovered from the fill of a drainage gully, Building 6, Phase 4. Centrally perforated by four circular nail or rivet holes, and with traces of two incomplete holes at each broken end, the object may possibly be part of a hinge strap.

OVERVIEW

The size and nature of the non-ceramic artefactual assemblage allows only limited conclusions to be drawn regarding the character and date of activity at the site. Individually, the artefacts are of low quality and are fairly standard types. Considered collectively, the objects indicate the pursuit of domestic activities such as grain processing and small-scale metalworking, probably smithing. Typologically datable artefacts are few, and can only be broadly assigned to the medieval period. Most are associated with activity in the vicinity of early and late medieval Buildings 5 and 6 respectively.

ECOFACTS

Eden Hutchins

FAUNAL REMAINS

A total of 2.04kg of animal bone was retrieved from 31 contexts. Horse, cattle, sheep/goat and pig bones

were identified but a large proportion of the assemblage was not identifiable to species. This together with the small size of the assemblage precludes further analysis.

CHARRED PLANT REMAINS

A total of 15 soil samples were taken with the aim of recovering charred plant remains. Assessment showed these to be of limited analytical potential. Sample 204 from Structure 1, Phase 2, produced the only substantial quantity of charred seeds.

Species	Number
<i>Triticum</i> spp. type (free-threshing wheat)	~80
<i>Triticum</i> cf. <i>aestivum</i> (bread wheat)	19
<i>Avena</i> sp. (oats)	8
<i>Vicia</i> cf. <i>hirsuta</i> (hairy tare)	25
<i>Lathyrus</i> cf. <i>sativus</i> (vetch)	11

Table 2 Charred seeds from sample 204

All these species are known from other medieval settlements in the region (e.g. Stratton, Biggleswade, BCAS in prep.). This assemblage is likely to derive from accidental charring during one or more episodes of small scale crop processing within the settlement.

DISCUSSION

Today Marston Moretaine's apparently nucleated settlement pattern is largely a result of modern housing developments. However, an indication of earlier settlement morphology in this area can be gleaned from both the 1840 Tithe Map and Jefferys' map of 1765 which depict an attenuated row settlement stretching along what is now Woburn Road and NW alongside the lane to Wood End. Further occupation clustered around the infilled green and the church to the S. As a result of the archaeological work within the investigation area it has been possible to examine in detail some of the early medieval elements of this settlement pattern. The recovered evidence can be divided into five phases of activity, beginning in the 12th-13th century and extending through to the late medieval period. This timespan embodies an interesting change in land use from settlement to arable, over a relatively short period of time.

Documentary evidence demonstrates that the township of Marston existed before AD969 when the Aspley Guise charter refers to "the old charcoal pit where the three boundaries meet, of Cranfeld

men, and of Mereston men and of Holacot" (Fowler 1920). The township at that time may have comprised numerous small dispersed settlements. A residual assemblage of Saxo-Norman pottery found in the investigation area indicates that today's village of Marston Moretaine may well have originated as one of these smaller settlements.

The earliest structural evidence recovered from the investigation area dates to the early medieval period and suggests that the first phase of occupation consisted of unenclosed settlement. It comprised at least four buildings, two of which fronted the main road, whilst the others were ranged along the lane to Wood End. The buildings were of light construction and of a form consistent with that of early medieval building traditions, utilising posts and ground beams set in shallow trenches. Their associated pottery assemblages also indicated an early medieval date. The vessels were locally made, functional types, consistent with a low status site. This type of assemblage is known from similar sites of this date within Bedfordshire, for example Stratton, near Biggleswade.

At a later stage during the early medieval period, the buildings are presumed to have fallen out of use. One of them, in the S corner of the investigation area, was superseded by a larger post-built structure, possibly a barn. The latter's position matches that of the larger platform identified by the earthwork survey. It sat within a narrow close ranged along the main road, bounded to the rear by a ditch. A similarly aligned boundary still exists within the grounds of the adjacent nursing home to the E of the study area. A second perpendicular ditch, heading NW, formed the NE side of a second close 35m wide ranged along the lane. Environmental data from a structure within this enclosure provided limited evidence of small scale crop processing.

The layout of this early medieval settlement is mirrored in the arrangement of earthworks to the SW of Moreteyne Manor. This indicates that the Woburn Road formed a focus for the development of a regular row of crofts and tofts during the 12th-13th century. Row settlements in general have a long currency in the east Midlands, and although many are post-Conquest, the origins of one such example, at Stratton, lie in the tenth century (Lewis *et al* 1997).

W of the investigation area, near Moat Farm Cottages, the settlement earthworks were divided from the fields to the N by a holloway. The absence of contemporary ridge and furrow to the N in the

study area may have been due to the lane to Wood End continuing as a focus for occupation during the early medieval period.

At some point during the early medieval period the close ranged along the lane ceased to be used for domestic occupation and was taken into arable cultivation. The enclosure was lengthened to the S, which created space for a headland and allowed ploughing to be undertaken. The use of this relatively small piece of ground for ploughing suggests arable land was at a premium. The quantity of pottery retrieved from deposits infilling the boundaries of the close suggests that during this phase an existing barn may have undergone a change in function to one associated more with domestic activities. Occupation may also have continued nearby, possibly in adjoining plots of ground. This pattern of settlement shift was common during the early medieval period and was largely driven by an increase in population, the expansion continuing until some time during the 13th century (Steane 1984).

The ceramic evidence from the investigation area indicates a distinct hiatus in activity between the 12th-13th century and the late medieval period. This may be related to the establishment of the moated site of Moreteyne Manor to the W. In comparison to the moats of the neighbouring parish of Cranfield, where the construction of them was directly associated with the process of assarting in the 12th and 13th centuries, the moat at Marston occurs in close (40m) proximity to the established 12th-13th century house platforms. It seems likely that its construction necessitated the clearance of at least part of these areas and reflects an assertion of superior status. The present building within the moat is early 15th century in date, but it may well have had an earlier predecessor.

During the late medieval period a barn was built in the SE corner of the field. This sat within the possibly relict bounds of the close that once fronted the road.

Despite the fact that in 1765 Jefferys' map indicates the presence of occupied land along both this frontage and to the E of the lane to Wood End, no evidence of this was found in the investigation area. By 1797 the Enclosure Award recorded only one old enclosure surviving in the southern third of the field, which was itself an amalgamation of the earlier one fronting the lane and the one ranged along Woburn Road. The N edge of this new close was marked by the leat that ran NE from the moat. By 1840 this enclosure had itself been subsumed

into a larger, L-shaped unit of land known as Ley Close. This area of ground extended NW beyond the leat into the former ploughed fields and survived in this form until the land was re-developed in the present day.

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Archaeological recording to the rear of 29 - 41 High Street, Bedford

SEAN STEADMAN

With contributions by Ed McSloy, Anna Slowikowski, and Eden Hutchins

Illustrations by Lisa Padilla and Cecily Marshall

SUMMARY

Archaeological recording to the rear of 29-41 High St. recovered evidence of Late Saxon industrial activity and occupation prior to the construction of the outer bailey ditch and rampart of Bedford castle. Several episodes of pre-castle activity, including evidence for a Late Saxon smithy, were discovered beneath the outer bailey rampart in the east of the site. The line of the outer bailey ditch was established during piling for foundations. Little evidence of post-castle activity, with the exception of a post-medieval horn working deposit, had survived to the rear of the High Street. The upper storeys of two timber-framed buildings dating to the late 16th and early 17th centuries have been retained within the present development.

INTRODUCTION

An archaeological evaluation carried out to the rear of 29 - 41, High Street, Bedford in March 1995 identified surviving archaeological deposits dating from the 10th to the 16th centuries (Dawson 1995). Consequently a programme of archaeological recording was incorporated into the proposed development. The work was carried out over a period of 18 weeks, between 1 May and 11 September, 1995 by Bedfordshire County Archaeology Service on behalf of the developer Leathbond PLC.

TOPOGRAPHY

The site is located on the eastern side of Bedford High Street, c.250m north of the River Great Ouse, at a height of c.25m OD (Fig 1). The underlying geology comprises Kellaways Sand overlying Kellaways clays above Cornbrash limestone.

HISTORICAL BACKGROUND

The site lies within the historic core of Bedford occupying a part of the Saxon burgh which was incorporated into the outer bailey of Bedford Castle in the late 11th or early 12th century. Bedford Castle is first mentioned in historical documents in the 1130's. A description of the castle '*completely ramparted around with an immense earthen bank*

and ditch, girt about with a wall strong and high...' may be merely a formulaic representation, rather than a true reflection of the castle (Baker D, 1979, 10). Following his acquisition of the castle in 1215, Falkes de Breauté ordered the demolition of the nearby churches of St Paul and St Cuthbert '*and with the stones of the churches... surrounded [the castle] on all sides with deep paved ditches...*' (ibid, 11). This extensive refortification was to no avail during the siege of 1224 when the castle's defences were breached by the forces of Henry III. Subsequently the castle defences were ordered to be slighted and all its ditches filled in. Although William de Breauté was granted permission to maintain an unfortified dwelling, by 1361 the site of the former castle was reduced to '*a void plot of old enclosed by walls*' (ibid, 11). The castle ditch, later formed the rear boundary of properties fronting on to the High Street. In 1768, one of these, No. 35, became the property of a butcher, Thomas Odell, who left the property to his son, also a butcher called Thomas, in 1782. This property was licensed as the Barley Mow Inn by 1792.

ARCHAEOLOGICAL BACKGROUND

Excavations within the castle precincts to the east revealed evidence of occupation dating from the late Saxon period onwards (Baker et al 1979). The inner bailey ditch was investigated and proved to have been lined with stone (Baker E, 1979). The western arm of the outer bailey was expected to run parallel to the High Street across the site. Excavations at St Paul's Square to the west of the High Street uncovered evidence of Saxon and medieval occupation and industry. Two rows of post-medieval butchers' shops or shambles separated by a cobbled roadway, Butchers Lane, were discovered on the north side of St Paul's Square (Baker E, 1987).

METHOD STATEMENT

The buildings fronting on to the High Street, including the timber framed buildings (Nos 29-31) are all listed and have been retained within the present development (Calladine 1995). The

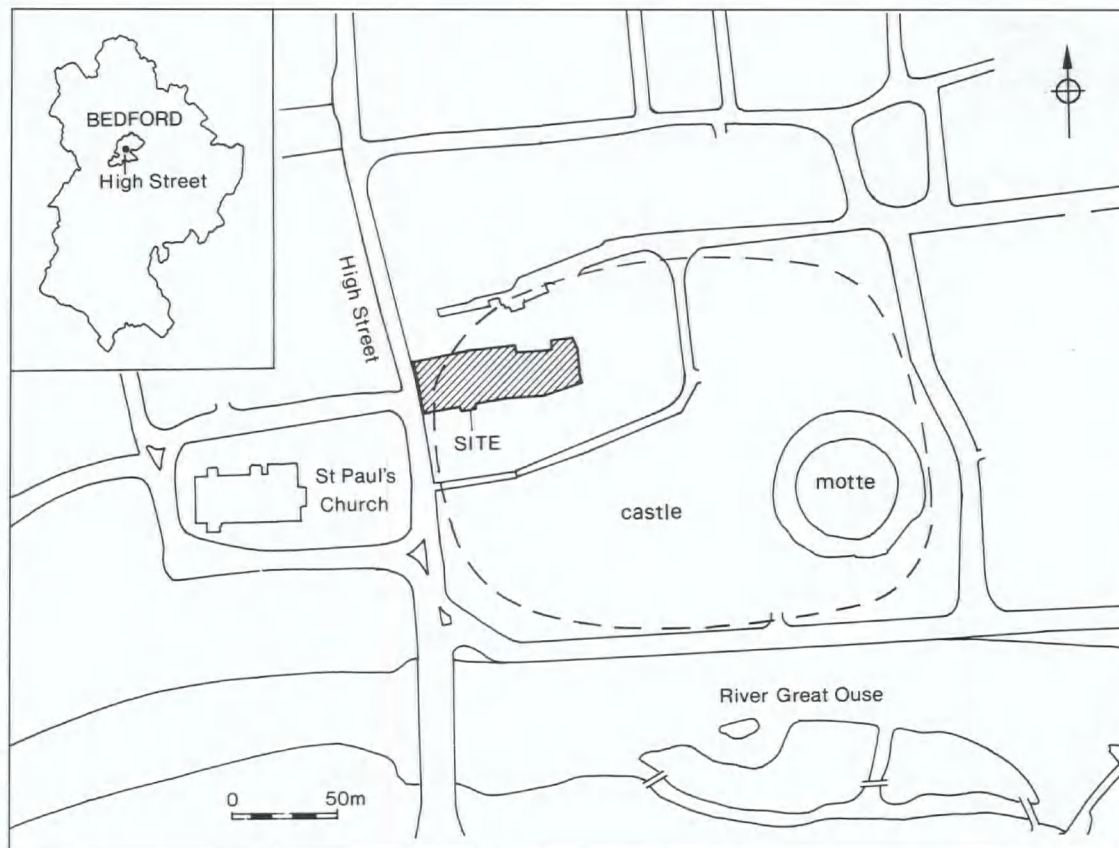


Figure 1 Site Location

majority of the buildings to the rear, with the exception of a brick built warehouse, 33c, in the south-east corner of the site and the south wall of a number of linked structures behind No 29, have been demolished. In order to minimise disturbance to the archaeological levels, the retail extension was designed to be built on a series of ground beams supported by concrete piles. Only those deposits above formation level, 28.385m OD, were investigated during the initial ground reduction. All areas of deep disturbance, foundations for the lifts and escalator, ground beam trenches and underpinning pits, were fully recorded.

Initial ground reduction was carried out using a 360° mechanical excavator fitted with a toothless ditching bucket operating under archaeological supervision. Surviving archaeological deposits were encountered at the eastern end of the site within the site entrance. Consequently, excavation had to be carried out in stages to allow continued access during ongoing demolition and scaffolding

work. Modern demolition rubble and post-medieval levelling deposits were encountered above formation level across the remainder of the site.

Underpinning pits were excavated by hand in three areas of the site; within the retained building 33c, beneath the curtain wall on the south side of the site and beneath adjacent structures in the north-west of the site. Of the other areas of deep disturbance, only the lift pit at the east end of the development revealed significant archaeological deposits. These works were carried out under archaeological supervision and all significant deposits were recorded. A watching brief was maintained throughout the excavation of the ground beam trenches.

Some artefacts and ecofacts were recovered during the piling but these could not be assigned to secure phases. The levels at which the boring rig encountered the limestone bedrock were recorded, indicating the probable western line of the outer bailey ditch.

The piecemeal recording of the archaeological deposits was dictated by the sequence of demolition and construction work carried out within a restricted area of less than 2000 square metres. This report synthesises the results of archaeological recording, by phase across the whole site.

All archaeological features and deposits (contexts) were assigned an individual number in a single sequence. Numbers in brackets within the text refer to the original context numbers issued on site. Layers or features encountered in more than one place, particularly during the recording of the underpinning pits, were numbered separately on site and subsequently amalgamated during post-excavation analysis. In such cases a single number is quoted in the text. Within this report context numbers referring to cut features are expressed [*], infilling deposits or layers are expressed (**).

The site code used during the excavation was BHS 95. The archive of finds and records will be lodged with Bedford Museum, Accession No 1995/25.

EXCAVATION RESULTS

PRE-CASTLE DEPOSITS

Phase 1 Early-Middle Saxon (Not illustrated)

No structural remains were encountered for this phase but a possible occupation horizon or former ploughsoil was discovered.

The natural subsoil of riverine sands and gravels was encountered in the south-eastern and western areas of the site between c.27.85m and 27.71m OD. No features were cut into this layer which was directly overlain by a layer of yellowish brown, sandy clay silt (150), up to 0.25m thick. Concentrations of charcoal flecks and slag were noted within this layer in the east of the site. Early-Middle Saxon pottery sherds provide a date for layer (150). A heavily abraded sherd of Roman shelly ware was residual within this context and a small quantity of Saxo-Norman pottery sherds were contaminants from a later feature.

It is possible, given the lack of structural evidence, that this area was peripheral to the areas of Saxon occupation identified during previous excavations to the south-east (Baker et al 1979). The domestic refuse could indicate manuring, which would suggest that this was a former ploughsoil, but the unabraded nature of the pottery sherds argues against this. The small quantities of slag may be evidence of early iron working but are more likely to be contaminants from later features.

Phases 2 – 7 Saxo-Norman

Phase 2 (Fig 2)

Evidence of quarrying was discovered in the east of the site whilst rubbish pits to the west probably indicate yards to the rear of properties fronting onto the High Street.

Three pits [168, 400, 484] cut through layer (150) in the south-east corner of the site, were probably the result of quarrying of the underlying sand and gravel. They were each over 1m in diameter with irregular sloped sides and uneven bases surviving to a depth of c.0.45m. Pit [400] was backfilled with domestic refuse, including pottery sherds dated to the 10th/11th century AD, and limestone pieces in a silty sand matrix flecked with charcoal (399). The other two pits [168] and [484] contained silty sand (167) and silty clay (480) deposits with few inclusions. Some animal bone fragments, were recovered from the fill (167) of pit [168] but otherwise the sterile nature of these fills suggests that the pits were left to silt up naturally.

Several features, interpreted as rubbish pits, cut through the earliest ground surface in the north-west of the site. Most were observed in section and therefore their full extent could not be determined. They probably denote yards belonging to properties fronting on to the High Street.

The best preserved was a roughly circular pit [545] over 1.2m in diameter with steeply sloped sides surviving to a depth of at least 0.4m. It was filled by successive layers of silty clay (546, 534, 547) containing pottery, animal bone fragments and charcoal flecks. A mixed deposit of sandy clay silt (548) in the top of the pit may have been laid down deliberately to seal the refuse. Pit [804] was c. 1m wide and 0.65m deep and contained domestic refuse in a sandy loam matrix (530). Single sherds of St Neots-type ware pottery, dated to the 10th/11th century AD, were recovered from one of the fills (547) of pit [545] and from the fill (530) of pit [804].

Two pits associated with industrial activity were also located in this area. Pit [556] was at least 0.8m wide and 0.7m deep. It was filled by successive layers of clay silt (557), clay sand (558) and ashy silt with charcoal (559). A substantial pit [803], at least 2m wide and c.0.65m deep was observed in section in the south-west of the site. Its primary fills of silty loam with charcoal and limestone inclusions (684, 683), were overlain by successive deposits of silty clay flecked with charcoal and ash (682) and ashy silt with charcoal and slag inclusions (681). These layers were sealed by a homogeneous silty

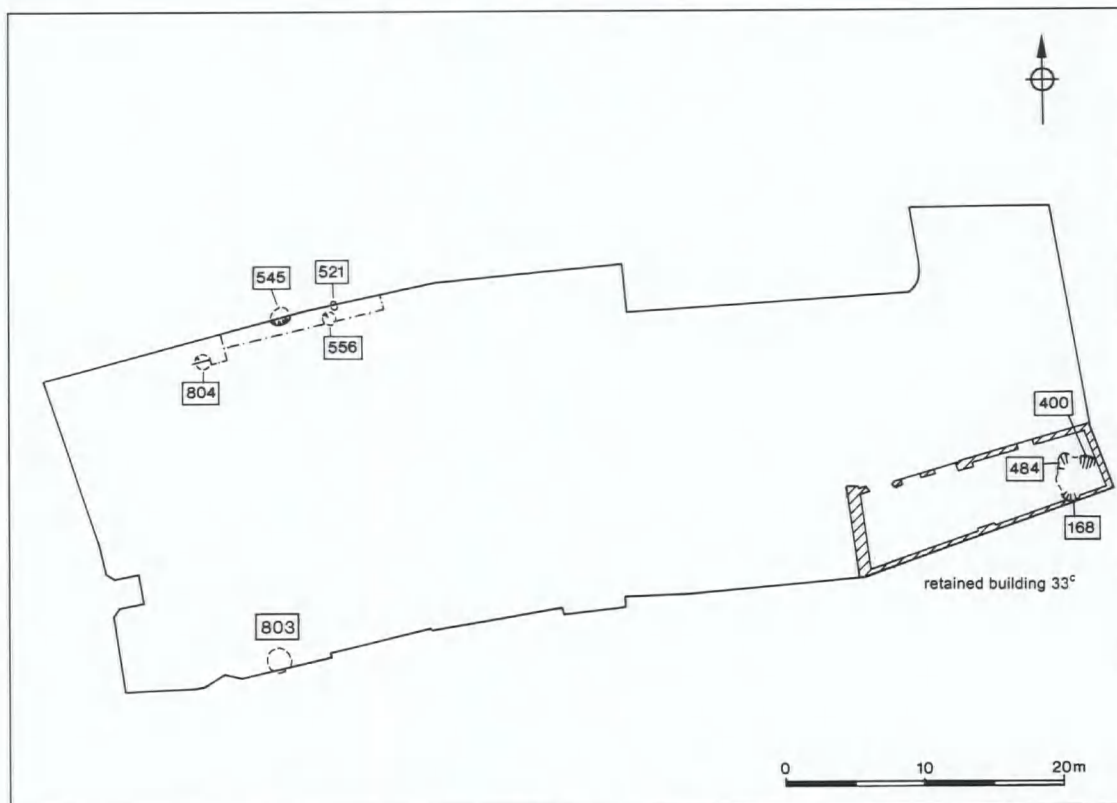


Figure 2 Phase 2: Excavated features

loam deposit (680). No artefacts were recovered from any of these fills.

A single post-hole [521] with limestone packing was also identified in section. No other structural remains were identified.

Phase 3 (Fig 3)

Boundary ditches indicate formal sub-division of the site in this phase. Evidence for a post-built structure indicates an increase in activity in the east of the site.

The remains of at least one post-built structure, Structure 1, comprising post-holes and stake-holes cut into the earliest ground surface, were located in the south-east of the site. All were filled by uniform sandy silt deposits. Two larger, intercut, post-holes [228, 298], may also have been a part of this structure. St Neots-type ware pottery sherds were recovered from these two post holes [228, 298] but no dating evidence was recovered from any of the other post holes. The flimsy remains of Structure 1 may represent an ancillary building or shed rather than a dwelling. If the larger post holes [228, 298]

are part of this structure then at least one episode of repairs is indicated.

Two ditches were discovered in the east and west of the site which may indicate the formal laying out of property boundaries to the rear of the High Street.

A ditch [248] aligned roughly north – south was located to the west of Structure 1. The U-shaped profile ditch was at least 0.8m wide and 0.4m deep. Its primary fill comprised sandy silt clay (247) flecked with charcoal. Two sherds of St Neots-type ware pottery recovered from this provide the only dating evidence for ditch [248].

Two ditch cuts, observed in opposite sections, were interpreted as a single ditch following a roughly north – south alignment across the western end of the site. Ditch [560] was at least 0.6m wide and 0.65m deep and ditch [679] was 0.55m deep. Their primary fills of silty clay (561, 678) were flecked with charcoal but did not produce any dating evidence. The location of ditch [560, 679], no more than 10m from the current line of the High Street, suggests that properties were laid out parallel

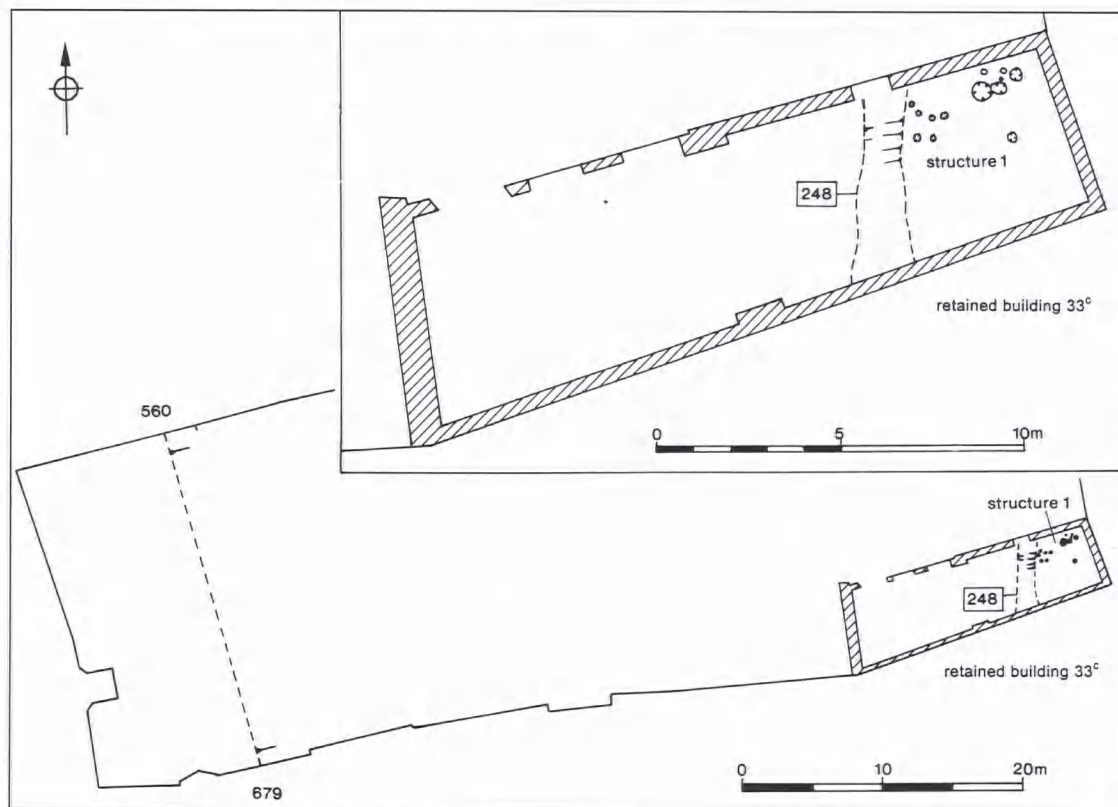


Figure 3 Phase 3; Excavated features. Inset: Structure 1 and associated boundary ditch within retained building 33c

to the street at this time.

Phase 4 (Fig 4)

A clay-lined drain inserted through the disused structure provides evidence of industrial activity on site whilst the boundary to the rear of the High Street was backfilled and replaced.

A clay-lined gully [301], constructed over the disused timber structure, Structure 1, extended c. 3m from the eastern limit of excavation on a curving north-east – south-west alignment. The shallow gully was c.0.25m wide and 0.07m deep with bluish grey clay-lining (148), no more than 0.03m thick, which extended over the east face of the partially silted ditch [248]. Some domestic refuse, including St Neots type-ware pottery sherds, was recovered from the clay-lining (148). The gully was clearly designed to drain into ditch [248] and although it post-dates the initial construction of the ditch the two features must have been open at the same time. A small quantity of slag recovered from its clay-lining may indicate ironworking nearby. The final

clay silt fill (500) of ditch [248] contained frequent charcoal flecks.

The boundary ditch to the rear of the High Street [679] was backfilled by a series of silty deposits (677, 673, 675) with clay lumps, limestone fragments and charcoal inclusions. Subsequently, it was recut slightly to the east by a U-shaped profile ditch [562, 806], with stepped sides, c.0.35m deep. Its clay silt fill (563) was flecked with charcoal and contained frequent small stones and occasional limestone inclusions. The shift in the position of this boundary may reflect increasing pressure on space for properties bordering the High Street.

Phase 5 (Fig 5)

The earlier property boundaries appear to have become obsolete by this phase. The remains of a possible stone founded structure, Structure 2, and increased quantities of domestic refuse suggest occupation in the east of the site.

A period of consolidation is suggested by an accumulation of clay silt flecked with charcoal

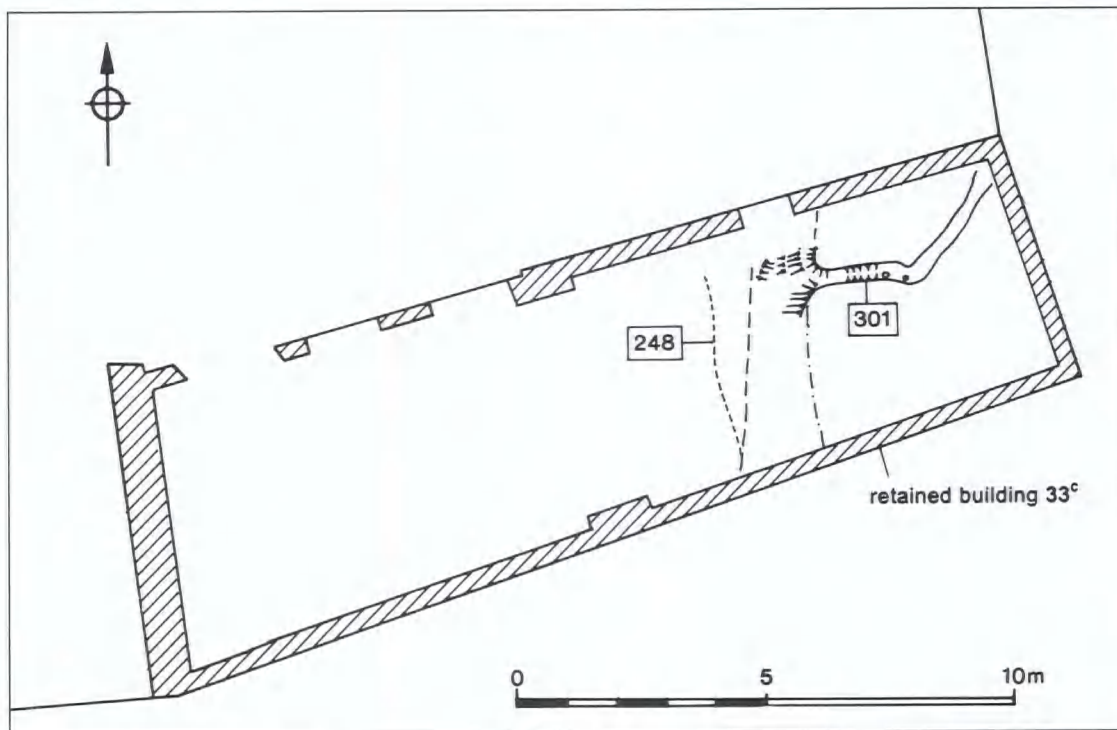


Figure 4 Phase 4: Clay-lined gully and partially silted boundary ditch within retained building 33c

(149) above the disused clay-lined gully [301] and obsolete boundary ditch [248]. Pottery sherds of predominantly St Neots-type ware and animal bone were recovered from layer (149). A similar layer above the disused boundary ditch [679] to the rear of the High Street (519) contained a higher proportion of limestone and charcoal inclusions. The fact that this boundary was abandoned soon after it was replaced suggests renewed pressure for space. It is likely therefore that narrower properties were laid out at right-angles to the street frontage at this time.

Layer (149) abutted a series of heat discoloured deposits which were observed in three sections in the east of the site. These deposits have been tentatively interpreted as the remains of a stone founded structure, Structure 2, at least 8m long and 5m wide. Layers of clay silt (290, 289), and silty clay (582) occupied shallow construction trenches [291, 583] cut into the earliest ground surface (150). These were directly overlain by heat discoloured deposits of red silty sand (584) and chalky sand with decayed limestone (220, 288). The red silt and decayed limestone deposits may have been burnt stone footings for an unspecified structure which could span Phases 2 – 7. Circumstantial evidence for stone

structures on site is provided by the large quantities of rubble in subsequent phases (see Phase 8 below). The clay silt layer (149) appears to respect the position of this structure and may be associated with its occupation.

Phase 6 (Fig 6)

An area of ironworking, indicated by pits backfilled with slags and hearth debris, was discovered in the north-east of the site.

The pits [79, 686, 692, 700, 705, 718] were between 1m to 1.5m diameter and up to 0.9m deep. Evidence of heat discolouration was visible on the east face of pit [79] and all of the pits contained similar fills of sandy clay and silt with high proportions of charcoal, slag and clinker as well as occasional fragments of burnt limestone and small quantities of hammer scale.

Smithing and smelting slags were present in the pit fills, although the relatively small quantity of smelting slag and the absence of ores, makes it unlikely that smelting was carried out on site. Large quantities of ferrous slag and hearth or furnace lining were found with smithing hearth bottoms and hammerscale. Clearly a smithy and forge must have

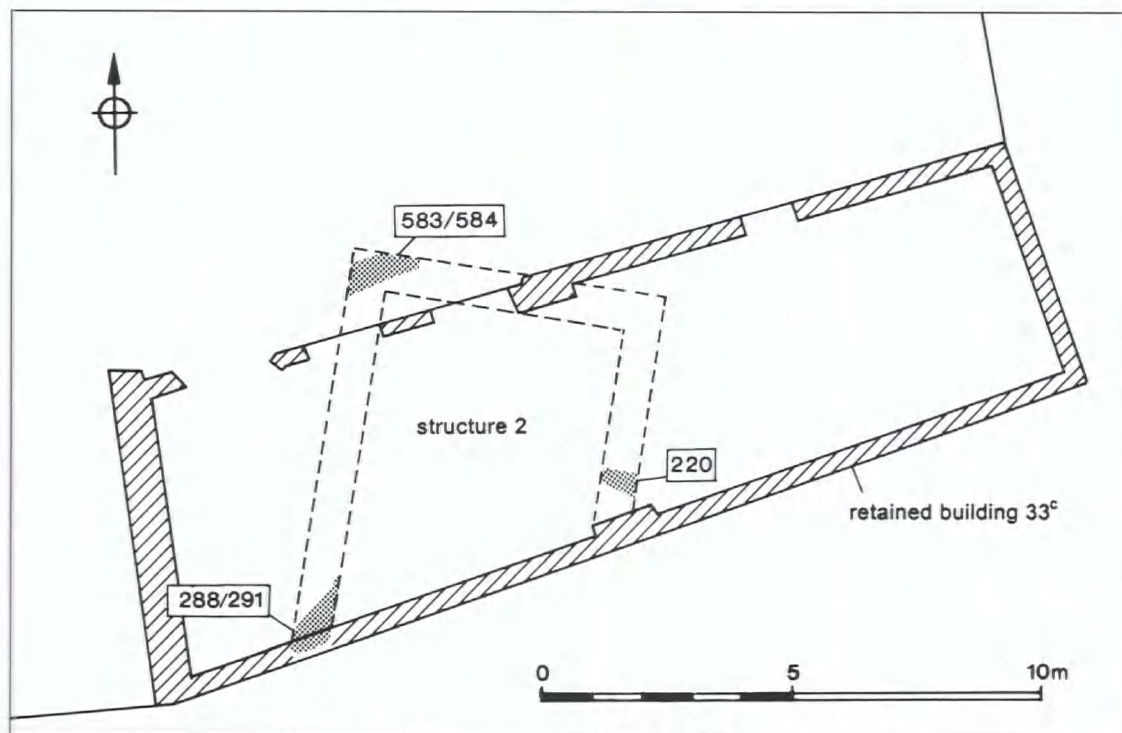


Figure 5 Structure 2: Heat discoloured deposits around building 33c and possible outline of structure

existed close by. The bulkiness of this material suggests that it was dumped in close proximity to the forge and the heat discoloration observed on the sides of pit [79] demonstrates that some of this material was still hot when it was tipped. The presence of both flake and spheroidal hammerscale probably indicate more complex ironsmithing than just the shaping of metals.

The disused pits were subsequently used for the disposal of domestic refuse. Pottery sherds of predominantly St Neots-type ware, were found in the fills of pits [79, 692, 705] and a perforated whetstone was recovered from one of the fills (70) of pit [79].

A narrow clay-lined gully [292], cut into layer (149) in the south-east corner of the site, extended c. 3m from the eastern limit of the excavation on a roughly ENE-WSW alignment. A lens of gritty sand (225) in the base of the gully was overlain by a lining of patchy grey clay (224). Clay silt flecked with charcoal (223) completed the infilling. Two shallow post settings [468 and 470] were observed in the base of the lining. This clay-lined gully may have been structural rather than a drainage feature and it is therefore unlikely to be a replacement for

the earlier clay-lined gully [301]. No other form or function could be assigned to this feature.

Phase 7 (Fig 7)

A flimsy post built structure, Structure 3, and a number of shallow pits were constructed over the earlier backfilled pits and gully.

The remains of a second post-built structure, Structure 3, were located in the south-east of the site. A single sub-square post-hole [451], with steep sides 0.6m deep, and four shallow stake-holes, < 0.1m diameter, < 0.05m deep [294, 296, 329, 331] were cut into the disused clay-lined gully [292].

A number of small pits were also discovered in this area. One pit [486] was 0.6m diameter with concave sides and base, c.0.18m deep. Its silty clay fill (486) contained large limestone pieces. Pit [245/346] was observed in two adjacent underpinning pits. It was at least 0.9m wide with uneven sides and base 0.18m deep and contained a single silty sand clay fill (244/346).

Two pottery sherds of St Neots-type ware were recovered from the fill (247) of pit [245] and a single sherd of similar type from the fill (486) of pit [485].

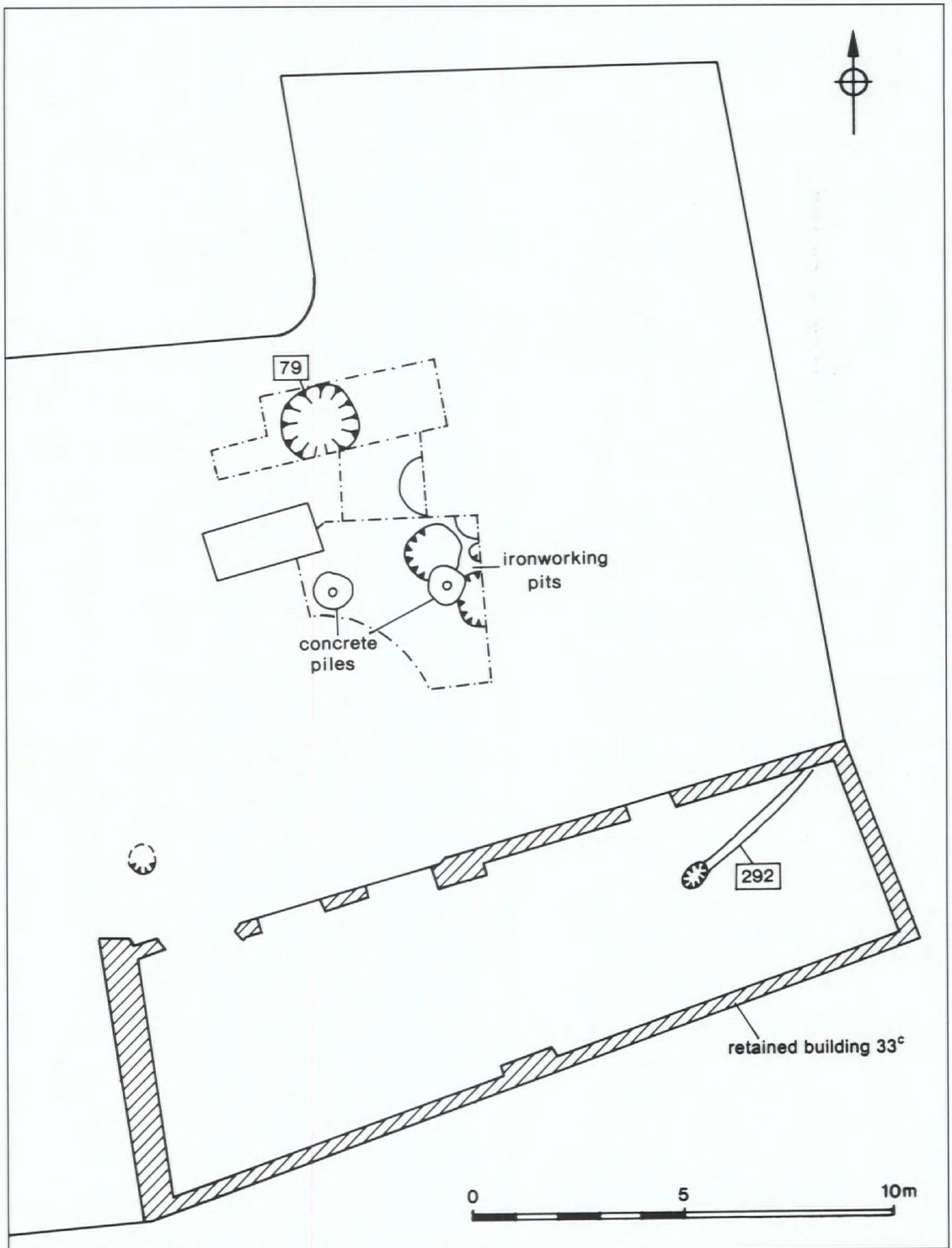


Figure 6 Phase 6: Excavated features

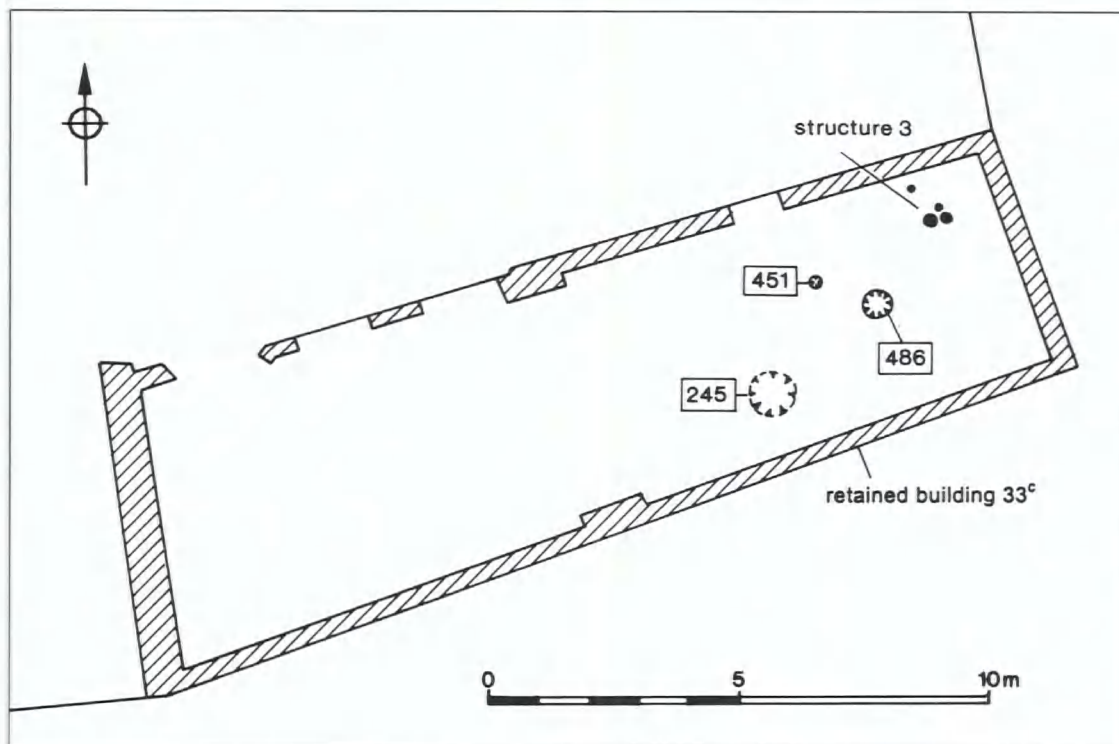


Figure 7 Phase 7: Excavated features within retained building 33c

Several small pits (not illustrated) were cut into the top of the backfilled ironworking pits in the east of the site. Pit [81] was at least 0.5m across with near vertical sides over 0.5m deep. Two shallow pits [694 and 696] were less than 0.3m diameter with sloped sides and concave bases c.0.05m deep. All three pits contained uniform fills of clay silt (80, 695, 697).

The paucity of domestic or industrial debris from this phase suggests a shift or decline in the industrial activity identified in earlier phases. This may reflect the shallow nature of the features which could be a result of later truncation or levelling.

CASTLE CONSTRUCTION, OCCUPATION AND ABANDONMENT

Phases 8-14 Medieval

Phase 8 Demolition Spread (Fig 8)

An extensive rubble spread extending over the backfilled pits and disused Structure 2 in the east of the site probably represents demolition deposits associated with construction of the outer bailey of the castle.

The rubble spread comprised alternate layers of

charcoal-rich silt (102) green grey, clay silt with roughly hewn limestone blocks and fragments (77), light grey clay (270) and charcoal-rich silt (72). A similar layer of charcoal-rich, silty sand (219) extended over the earlier burnt deposits (220, 288) and was probably part of the same layer.

The finds assemblage from this phase is consistent with predominantly domestic activity. St Neots-type ware pottery sherds were recovered from the rubble along with animal bone fragments, burnt clay and slag. A post-medieval bone pin and a glass bead were presumably intrusive within this layer. Twenty two sherds of St Neots-type were recovered from the ashy layer (219) were probably the remains of a single jar.

The provenance of this rubble spread remains uncertain. It is likely that the ashy layers are derived from domestic and industrial hearths. Much of the pottery, including the jar from (219), showed evidence of external sooting which suggests use as domestic cooking pots. Although the limestone rubble may provide evidence for stone structures it could have been introduced onto the site. It is tempting to associate the rubble with the burnt foundation deposits from phase 5, however, despite

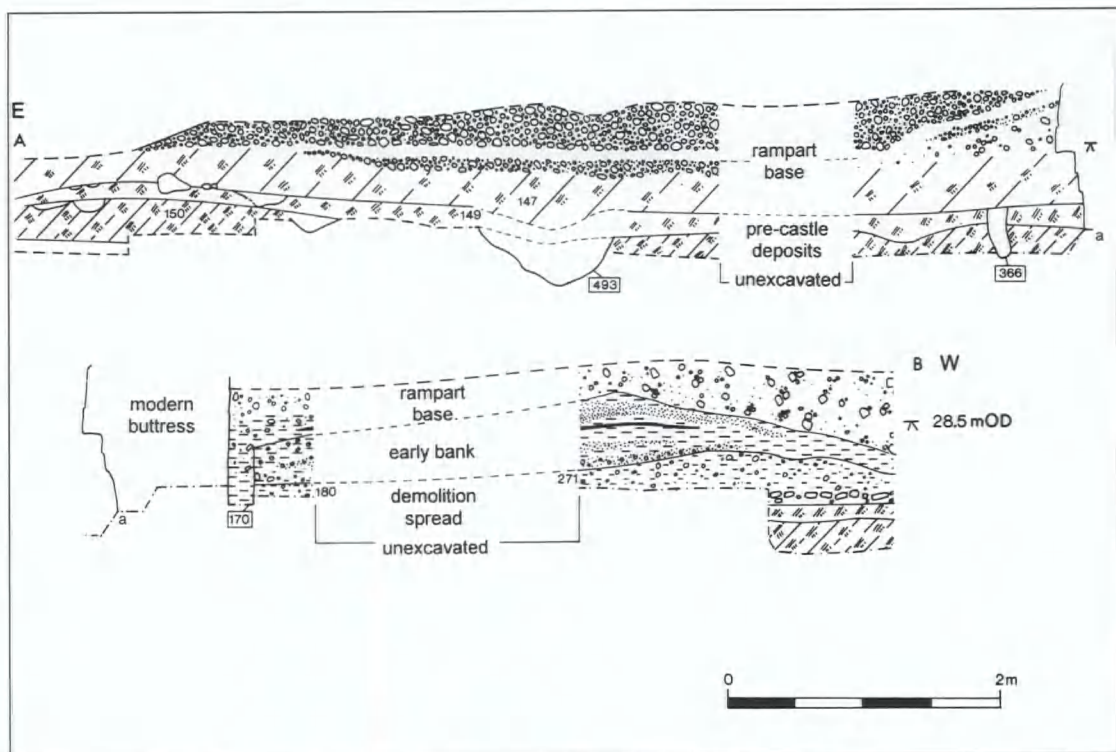


Figure 8 Composite section from underpinning pits within retained building 33c showing major excavated phases

the large quantities of charcoal no evidence of burning was noted on the limestone.

Phase 9 The outer bailey: early bank, rampart and ditch (Fig 8)

The outer bailey rampart of Bedford Castle was subsequently constructed on top of the rubble spread. Evidence for an early bank within the rampart deposits was observed in sections recorded across the eastern end of the site.

The early bank was c.5m wide and survived to a height of c.0.5m. The base of the bank comprised a mixed layer of orange, silty sand (165), sandy gravel (76) and reddish brown silty clay (205) laid over the rubble spread. Above this a layer of silty clay (66) with limestone fragments, charcoal, mortar and burnt clay inclusions was in turn overlain by layers of orange brown, sand and gravel (74) and yellow, sandy silt (73). The outer faces of the bank sloped unevenly at an angle of c. 30° which might indicate slumping or settling of the deposits. A line of close-set stake-holes [84, 86, 88, 90, 92], aligned roughly north to south, were cut into the lower sandy layers and may be the remains of

revetment within the rampart. Their black silty clay fills (83, 85, 87, 89, 91) derived from the overlying ashy layer (63). Successive layers of silty clay (176), clay silt (62) and silty clay (61), all with limestone rubble inclusions, formed a rubble core topped by a relatively stone-free clay silt layer (261). Above this, black and reddish orange silty clay layers (260) were surmounted by a layer of silty clay with limestone rubble (60). Quantities of slag found within several of these layers may have been incorporated into the bank core to strengthen its construction.

Most of the finds derived from contexts which were redeposited to form the early bank and were clearly residual. Although the majority of the pottery assemblage comprises St Neots-type sherds, small quantities of medieval sandy ware, usually no more than one or two sherds, dating from the 12th-14th century were also found in most layers. A silver penny minted during the reign of Edward the Confessor, an iron whittle tang knife and evidence of lead working were recovered from the rubble core. A disc brooch of 5th-6th century date was included with a small quantity of Early – Middle Saxon

material incorporated into the rampart make-up.

This early bank may have been constructed as a precursor to the outer bailey rampart or may have been integral to its construction. It was clearly formed from rubble and industrial debris derived from earlier activity on the site. The shallow post holes suggest some form of internal revetment but no other evidence for the method of construction could be identified within the limits of the excavated sections. Similar revetment features have been noted at other sites including Rumney Castle, a 12th century ringwork in Glamorgan (Lightfoot 1992). The medieval sandy ware sherds suggest a 12th century date for the addition of the outer bailey rampart.

Phase 10

Evidence of occupation or other activity within the outer bailey was recovered from phases 10 and 11.

A number of post holes [164, 170, 268, 366] were observed in section to the east of the early bank. They were generally c.0.2m diameter and up to 0.5m deep.

Phase 11

An accumulation of grey brown, clay silts (181) up to 0.2m deep extends over 8m eastwards from the back of the early bank. This layer contained domestic refuse including charcoal, mortar, fired clay and over 250 sherds of pottery.

Medieval wares dating from the 12th-14th centuries were represented but the majority were St Neots-type ware. A single sherd of Stamford ware was also recovered and a single sherd of coarse St Neots-type ware with internal sooting which had probably been used as a lamp.

The shallow post holes assigned to Phase 10 could represent further revetment prior to consolidation of the rampart with the clay silt layer (181) which may have been introduced onto the site for that purpose. The large quantities of domestic debris recovered from this layer, however, suggest a period of occupation within the outer bailey prior to a further phase of rampart construction. An early 12th century date for this activity is suggested by the pottery.

Phase 12 Rampart consolidation (Fig 12)

The outer bailey rampart appears to have been consolidated by the addition of further dumped deposits. The lower levels, surviving to a height of no more than 0.5m (0.9m above the top of the

rubble layer), were encountered in the underpinning pits within the retained building 33c and possibly to the north. The base of the rampart was at least 15m across but otherwise no indication of the final form or overall dimensions could be established. A narrow band of sand and gravel (235) overlain by a lens of ashy silt (236) marked the base of the consolidation above the silty clay layer (181). Alternate layers or dumps of clay silt (126, 280, 286), silty clay (57, 166, 241), limestone rubble (106, 107, 319), and gravelly sand (94, 108, 200) were encountered above the ashy layer.

Medieval pottery sherds were recovered from these layers in greater numbers than previously, but the assemblage was dominated by St Neots-type ware sherds.

Although the base of the rampart appears to derive from occupation debris the majority of the rampart would presumably have been quarried from the outer bailey ditch. Formation level for the retail extension did not allow this ditch to be investigated fully. However, the evidence from the piling of the site is informative. Load bearing geology, presumably comprising limestone bedrock, was encountered at c.25m OD across most of the site but immediately to the west, or outside, of the rampart deposits this stratum fell away to c.22.5-23m OD. It seems likely that this was caused by the digging of the outer bailey ditch. Data from the piling suggests that this ditch may have been as much as 25m wide and up to 6m deep and would have provided sufficient material to construct a rampart of similar dimensions. This would compare with the dimensions of the inner bailey ditch, a section of which was excavated in 1972 (Baker E 1979, Fig 17).

Phase 13-14 Abandonment and disuse of the outer bailey

Layers of dark grey, silty clay identified to the west of the rampart deposits probably represent the final silting of the outer bailey ditch. Above this, a series of silty clay deposits with limestone rubble probably derived from the levelling of the outer bailey rampart.

Medieval pottery sherds, including a fragment of a Brill-Boarstall jug, dating from the late 12th-14th century, were recovered from the ditch fills. Part of a leather shoe was recovered during observations of the piling in the area of the outer bailey ditch. In addition, a number of functional items including an iron key, part of a padlock, a whetstone and a horseshoe were recovered from underpinning pits

excavated across the line of the ditch. Although not securely stratified, these finds probably derive from the backfilling of the ditch.

POST-CASTLE DEPOSITS

Phase 15 18th century

The rampart deposits appear to have been severely truncated in the southeast of the retained building. Two large pits [125] and [394/222] were cut into the truncated rampart. The former appeared to be the remains of a horner's pit. The horn cores (127) were stacked within the flat bottomed pit [125]. Successive lenses of pale grey, silty clay (130) charcoal rich, greasy silt (129) and white chalk (128) extended over the base of the pit. Later activity at the site had cut away part of the pit which had been backfilled with clay silt (126). The other pit [222/394] was irregular in plan, with steep sides and a flattish base 0.5m deep. The pit was infilled by a series of clay silt (208/390), silty sand clay (391) clay silt (209/392, 211, 212) and silty clay (213) deposits.

A Chinese porcelain bowl dating from the mid 17th-18th century was recovered from the fill (212) of pit [222/394]. Residual St Neots-type ware sherds were recovered from the backfilling of both pits.

The horner's pit and associated pit indicate that this area, although becoming increasingly industrialised, remained peripheral to the town. Trades involved in animal processing, like butchery, hornworking and tanning often clustered together on the outskirts of town, partly for convenience but also on account of their anti-social nature.

The horn cores from pit [125] have been subjected to metrical analysis which suggests that they may be from improved short horn cattle, providing an early example of this innovation for southern England (Hutchins and Steadman forthcoming).

Phase 16

Several lengths of limestone masonry footings were observed in section in the west of the site. Typically, the footings comprised limestone blocks bonded with lime mortar set in a construction trench. A rectangular stone-lined pit (121) was uncovered in the south of the site. Its primary function remains unclear but its ashy silt backfilling (122) contained large quantities of broken glass and ceramic bottles. A number of cobbled surfaces, probably the remains of yards or streets, were uncovered in the east of the site.

Phase 17

A series of make-up deposits comprising clay silt, silty loam and sandy clay layers were encountered towards the centre of the site. Quantities of modern brick, tile, slag and ash were observed within these deposits. These layers probably represent a further period of consolidation and levelling following disuse of the masonry buildings.

Phase 18

Service trenches and tarmac surfaces associated with modern (19th/20th century) buildings were constructed on site.

THE FINDS

THE POTTERY

Ed McSloy and Anna Slowikowski.

The excavation produced 2323 sherds of pottery, representing 2196 individual vessels. Of this material 1976 sherds were hand-collected during the excavation and the remainder sieved from soil samples. The total weight of material recovered was 21.158 kg. Due to the circumstances, a sizeable proportion of pottery, 1028 sherds, or 44.3% of the total assemblage, derives from unphased contexts.

The pottery was examined in context group order and sorted by fabric type into twenty-seven fabrics according to the Bedfordshire Ceramic Type Series, held by BCAS. An attempt was made at this stage to bring together sherds of the same vessel from both the same context and from associated contexts. Quantification is in the form of a minimum vessel and sherd count, estimated vessel equivalent (EVEs), and weight. Examination of attributes including extent of abrasion, presence of residues, sooting and wear marks was undertaken to provide an indication of the function of the pottery.

Standard drawing conventions have been used, with vessels shown at one quarter size, external view on the right and a section and internal view on the left. The two hand made vessels illustrated are shown with hatched sections and the wheel-thrown vessels with solid sections. The pie diagram at the base of each illustration indicates the proportion of the vessel recovered.

Pottery type descriptions

Fabric types are listed below, using the common names and type codes in the Bedfordshire Ceramic Type Series, in approximate chronological order. Where types have been fully described elsewhere, only a reference is given.

Early to Middle Saxon 5th – 9th centuries (0.5% total assemblage)

Type A06 Sandy

Fully described by Baker and Hassall (1979, 152).

Forms: Hand-made but otherwise indistinguishable

Date: Early-mid Saxon

Type A16 Coarse quartz (Fig 9, Illust. no 1)

Fabric: Coarse, hard dark grey-black fabric with abundant quartz, occasional flint inclusions and often with organic impressions on the surfaces. First recognised at Grove Priory, near Leighton Buzzard (BCAS in prep).

Forms: Hand-made upright-rimmed jar with internal thickening.

Date: Early Saxon; probably 6th century, but possibly continuing into the middle Saxon period.

A18 Fine Quartz type

Fabric: Coarse, hard, black throughout with outer surface always smooth and in two cases appears burnished. The dominant inclusion comprises common, fine, sub-rounded quartz, averaging between 0.3 and 0.5mm. Two sherds also contain sparse, rounded calcite fragments between 1 and 2.3mm in size. The fracture is rough.

Forms: Hand-made jar with simple upright rim. Some burnishing.

Date: Early-mid Saxon

The fabrics featuring frequent quartz inclusions, typical of this period, are likely to be of local origin and manufacture. Petrological analysis, carried out on similar material from Bedford indicated a likely source in the boulder clay deposits which are present in Bedford and the surrounding area (Baker and Hassall 1979, 152).

Type A11 Maxey-type (Fig 9, Illust. no 2)

Fully described by Addyman (1964).

Forms: hand-made but otherwise undiagnostic. A single sherd from a flat plate-like object was recovered. It had been pierced with a number of holes, but its function is unknown.

Date: Mid-7th-9th centuries

Maxey-type ware is encountered in the core area of Northamptonshire, Bedfordshire, Cambridgeshire and Lincolnshire. Petrological analysis has demonstrated that it is possible to assign Maxey-type sherds to either a northern Lincoln-type group or a southern, Raunds-type group (Vince and Young 1992). Maxey-type pottery from Bedford falls into the southern grouping. Similarities noted between the petrology of the southern Maxey-type fabric and St Neots type suggest a link between the two.

Saxo-Norman mid-9th – 11th centuries (86% total assemblage)

Type C08 Thetford-type ware

Fully described by Hurst (1976, 315-330); examples from Bedford are described by Baker and Hassall (1979, 172).

Forms: Wheelmade but otherwise undiagnostic.

Date: 10th-11th centuries.

Type B01 St Neots-type ware (Fig 9, Illust. nos 3-12)

Fully classified by Hurst (1956) and discussed more recently by Hunter (1979) and Denham (1985). Examples from Bedford are described by Baker and Hassall (1979, 165).

Forms: Wheel-thrown bowls with inturned and hammer-headed rims; everted-rimmed jars with sagging bases; jars with lugs, perforated for suspension; lamps/candlesticks; pitchers. Decoration consists of areas of finger tip impressions, either as applied strips or impressed directly to the rims of jars, the carination of bowls or, in the case of pitchers, to the handle (Fig 9, Illust. no 12).

Date: 10th-11th century

Type B01B Fine St Neots-type ware (Fig 10, Illust. nos 13-14)

Fabric: Similar to fabric T1(1) at Northampton (Denham 1985, 54).

Forms: Wheel-thrown bowls with inturned and hammer-headed rims; everted-rimmed jars.

Date: 10th-11th century

Type B04 Coarse St Neots-type ware (Fig 10, Illust. nos 15-20)

Fully described by Baker and Hassall (1979, 167). Similar to fabric T1(3) at Northampton (Denham 1985, 54).

Forms: Wheel-thrown bowls in the St Neots tradition with inturned and hammer-headed rims; socketed bowls; everted and upright rimmed jars with sagging bases; jars perforated for suspension; lamps/candlesticks. Applied thumbed strips were used decoratively in the same way as on type B01 vessels.

Date: 10th-11th century

St Neots-type ware has a wide distribution throughout a core area in the S and E Midlands and is frequently encountered on excavations of settlement sites in the valley of the Great Ouse and its tributaries. No production sites are known, although it seems likely that more than one centre was operating at any given time. Strong correlations between concentrations of St Neots type and outcroppings of Jurassic geology have been noted from previous research, suggesting that kilns were sited to exploit deposits of the fossil shell which formed an important component in the fabric's make-up (McCarthy 1979).

It has been suggested that type B04 may be a product local to Bedford (Baker and Hassall 1979, 152), made in imitation of B01 forms in a coarser fabric. Recent finds of the fabric at Stratton, near Biggleswade (BCAS in prep.) and Tempsford (Wells 1996) suggest that the distribution is wider than Bedford itself.

Type C12 Stamford ware

Fabric B (Kilmurry 1980, 8).

Forms: Wheel-thrown but otherwise indistinguishable; with a thin light yellow-green or mottled green glaze.

Date: 10th-12th century

Early medieval 12th-13th centuries (12% total assemblage)

B05 Harrold/Olney Hyde-type

Fully described by Baker and Hassall (1979, 167-168). Harrold discussed by Hall (1972, 23-32); Olney, by Mynard (1984, 56-85).

Forms: Large wheel-thrown bowls in the St Neots tradition with inturned rims, everted and upright rimmed jars.

Date: 12th-13th century

Developed St Neots-type ware is the common name applied to shelly pottery produced in the 12th and 13th centuries. Such pottery is closely related to the earlier, Saxo Norman, shelly fabrics, B01, and although new forms such as jugs and fish dishes were introduced, jar and bowl forms continue in much

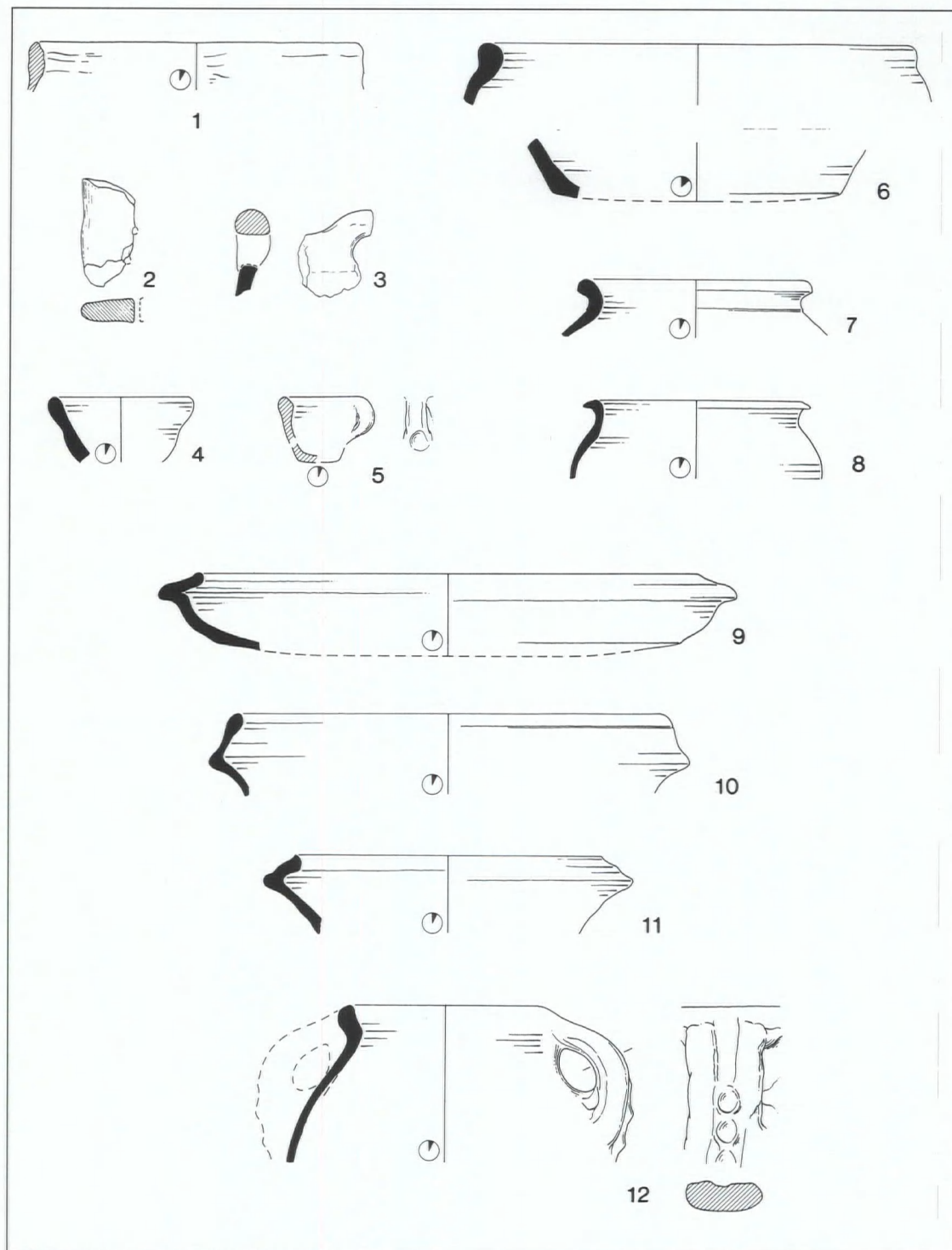


Figure 9 Illustrated Pottery (1:4) – See Table 2

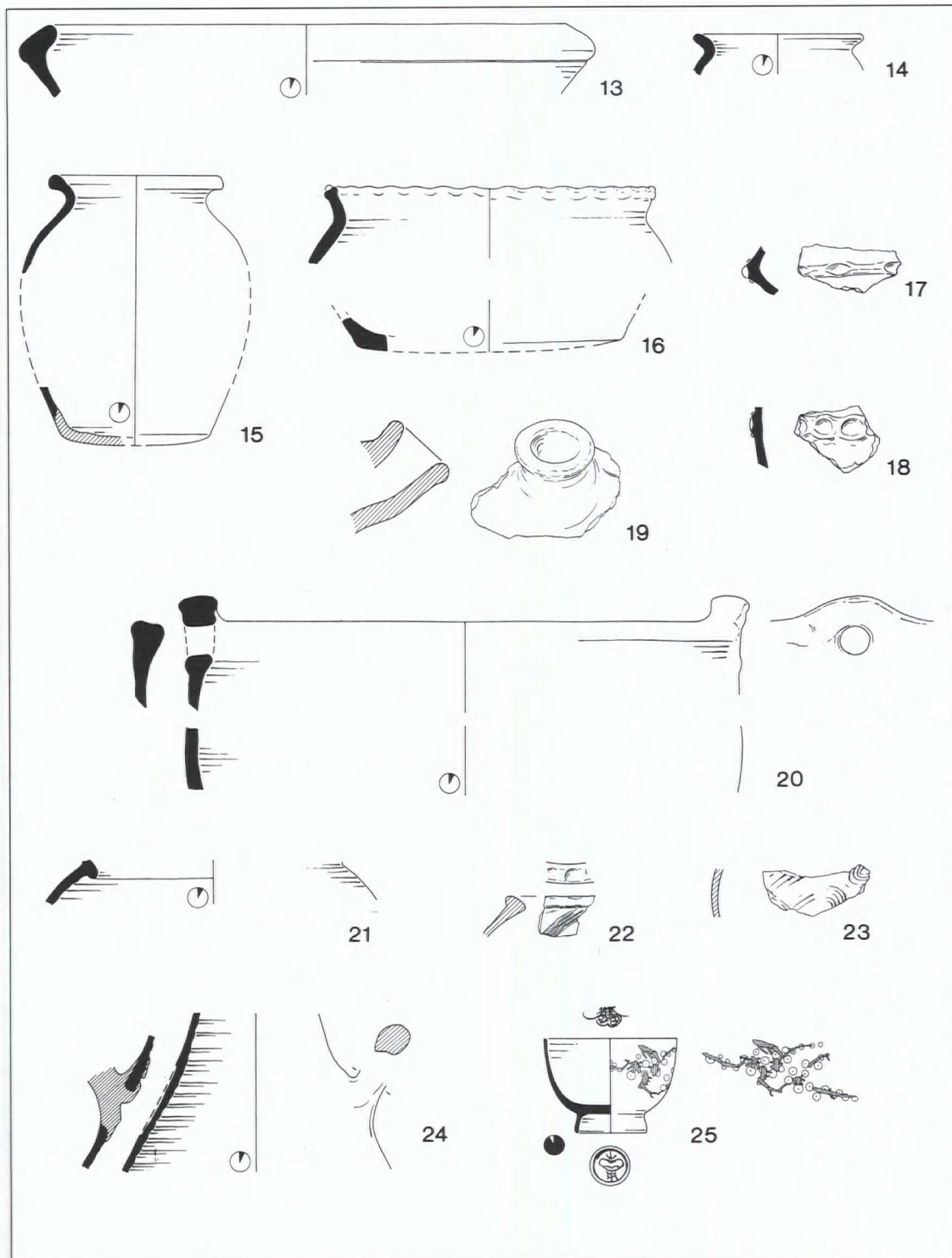


Figure 10 Illustrated Pottery (1:4) – See Table 2

the same tradition and are often difficult to distinguish. Compositional differences have been noted between developed St Neots-type sherds from different findspots, suggesting that, common with the 'classic' St Neots-type, B01, more than one production centre was in operation. Good evidence exists for production centres for pottery in this tradition at Harrold (Beds) and Olney Hyde (Bucks).

Type C03 Medieval sandy (nos 21-23)

Fully described by Baker and Hassall (1979, 172).

Forms: Wheel-made jars and jugs. Decoration is rare; two examples of combed motifs were found.

Date: 12th-?14th century.

Type C05 Medieval sandy

Fully described by Baker and Hassall (1979, 172).

Forms: Undiagnostic body sherds

Date: 12th-?14th century.

High medieval and transitional 13th – 16th centuries (0.6% total assemblage)

Type C09 Brill-Boarstall ware (Fig 10, Illust. no 24)

Discussed fully by Jope (1953) and Ivens (1982).

Forms: Wheel-made jug with pushed through handle and lustrous green glaze.

Date range: 13th-14th century, continuing into the 15th century.

Type C10 Potterspury ware

Fully discussed by Mynard (1970).

Forms: Wheel-made but otherwise indistinguishable.

Date range: 13th-14th century, continuing into the 15th century.

E01 Late medieval reduced ware

Fabric: Examples from Bedford are described by Baker and Hassall (1979, 212).

Forms: Undiagnostic, wheel-made body sherds.

Date range: 14th-15th+ century

Fabric E01 falls into the East Midlands late medieval reduced ware tradition, first identified and discussed by Moorhouse (1974). Kilns producing this type are known in Bedfordshire at Flitwick, on the lower Greensand in the south of the county (Mynard et al 1983) and at Everton, also on the Greensand ridge in the east of the county (Hassall 1976; Slowikowski 1992). Production sites in neighbouring counties producing wares in the same tradition are known at Higham Ferrers, Northants., and Great Brickhill, Bucks. (Mynard et al 1983, 83).

Post-medieval and modern (2.1% total assemblage)

P33 Tingleazed

Fully described by Baker and Hassall (1979, 222).

Forms: Wheel-made bowl with white and mottled blue glaze.

Date range: 17th-18th century

P34 Chinese Porcelain (Fig 10, Illust. no 25)

Fully described by Baker and Hassall (1979, 224).

Forms: Wheel-made bowls with painted floral decoration and transfer prints.

Date range: mid 17th-18th century

A number of sherds were either unphased or recovered from modern phases 17 and 18. These include a single sherd of Thetford-type ware (C08); Medieval sandy ware (C01); a possible sherd of Hertfordshire-type greyware (C60); Late medieval oxidised ware (E02); Post-medieval red earthenware

(P01); Slipware (P06); English stonewares (P48), and English porcelain (P35). These are all recorded in the archive.

DISCUSSION

A high incidence of residuality and disturbance occurred on the site, with Saxo-Norman pottery types, B01, B01B and B04, consistently forming the largest element throughout the phases (Table 1). This is also seen from the overall ratio of vessels to sherds (1863:1933).

Pre-castle deposits

Phase 1 Early-middle Saxon

The hand-made, generally quartz tempered, sherds which are characteristic of the early or middle Saxon period in the region are in good condition with little or no abrasion apparent. Saxo-Norman ceramics appearing within this phase are intrusive, most originating from a single layer (78) which was cut through by a later pit [168] containing St Neots-type pottery.

Phases 2-7 Saxo-Norman

The ceramic assemblage from phases 2-7 is dominated by Saxo-Norman shelly wares, B01, B01B and B04, which comprise 94% of the total. The range of forms, primarily jars and bowls, is entirely consistent with activity of a wholly domestic character. The Stamford ware found in contexts of the succeeding phase, may have originated from here. Residuality within the assemblage is suggested by the quantity of abraded sherds which account for 20% of the total.

Castle construction, occupation and abandonment

Phases 8-12 Medieval

The pottery assemblage from phases 8-12 has much in common with that from the preceding Saxo-Norman phases, with fabrics B01, B01B and B04 dominant and making up 85.8 % of the total. Fabrics B05, C03 and C05 are present in slightly greater quantities than earlier phases, particularly within the dumped deposits associated with the initial construction of the outer bailey rampart. A relatively high degree of residuality, mainly amongst the St Neots-type pottery from these dumped deposits, is suggested by the incidence of abrasion which amounts to 21% of the total.

Post-castle deposits

Phase 13-14 Late medieval

Ceramics associated with activity in the wake of the

castle's slighting after 1224 are almost entirely lacking. These post-castle phases are characterised by small quantities of primarily residual pottery, but the assemblage includes single sherds from glazed jugs of Brill/Boarstall, C09, and Potterspury type, C10. This dearth of evidence is entirely in keeping with evidence from previous excavations in the castle area, suggesting the site was peripheral to the main areas of activity at this time (Baker and Hassall 1979, 180).

Phases 15-16 Post-medieval

A small quantity of residual St Neots-type ware was recovered from the fills, (127) and (208), of the horner's pit. The fill (212) of the associated pit produced only one vessel, a substantially complete Chinese porcelain tea bowl, no.25, dating from the 17th-18th century.

TYPES	PHASES				
	1	2-7	8-12	13-14	15-16
Roman	1:1	1:1			
A06	2:22				
A16	1:4		1:8		
A18	2:15				
A11		1:34	1:12		
B01	33:320	226:1477	601:3617	10:56	9:21
B01B	7:65	22:256	40:387		
B04	2:95	38:477	100:1984		
C12			3:10		
B05		22:162	87:760	4:35	
C03		6:56	21:183	9:178	
C05			8:83		
C09				1:85	
C10				1:7	
E01		1:1			
P33		1:2			
P34			1:8		3:99
TOTAL	48:522	318:2466	863:6152	25:361	12:120

Table 1 Pottery types, expressed as sherds:weight (gms), by phase. Modern phases 17-18 and unphased contexts have been omitted. Toned areas indicate contemporary ceramics.

Use of the pottery

Ten per cent of the assemblage retained traces of sooting. In all but three cases such sooting was confined to the exterior surfaces only, and, as the occurrence was mainly on jars, probably resulted from contact with fire whilst cooking.

Internal sooting was recorded on two vessels of small diameter, a feature which supports their identification as lamps. The internal sooting within a St Neots-type, B01, bowl may have resulted from the impromptu use of this vessel as a lamp or for transferring embers. Sherds from four vessels of St Neots-type, B01, contained traces of fairly thick black residue adhering to the internal surfaces. These may be the remains of burnt food. A white residue present in the base of a single vessel of

Medieval sandy type, C05, may be water scale or the result of mixing small quantities of limewash.

Sherds from two vessels, both of St Neots-type, B01, featured small holes, approximately 5mm in diameter, drilled through the vessel body after firing. Perforations such as these may result from a secondary use or attempts to mend a cracked or broken vessel with leather thongs or wire.

Of the Saxo-Norman pottery, fine tablewares, in the form of Stamford ware, C12, are rare in the assemblage, comprising only 5 vessels, possibly jugs or pitchers. This small group represents one of the very few glazed wares present on the site. Other imports are represented by a single sherd of possible Thetford-type ware, from an unphased context. In the later medieval period, finewares were brought in

from the north and west of the town, from Buckinghamshire and Northamptonshire. Coarse wares are

always less likely to travel great distances, and were locally produced.

Figure	Illust no	Type	Form	Context	Phase	Comments
9	1	A16	jar	322	1	internally thickened rim
9	2	A11	Unid. object	574	13	perforated
9	3	B01	jar	712	5	lug attached to rim
9	4	B01	lamp	274	unph	
9	5	B01	lamp	70/78	6 and 1	vessel with lug handle
9	6	B01	jar	376	unph	
9	7	B01	jar	192	unph	
9	8	B01	jar	606	13	
9	9	B01	bowl	78	1	residual
9	10	B01	bowl	70	6	
9	11	B01	bowl	70	6	
9	12	B01	pitcher	75	9	
10	13	B01B	bowl	63	9	
10	14	B01B	jar	78	1	residual
10	15	B04	jar	70/78	6 and 1	base attached separately
10	16	B04	jar	274	unph	
10	17	B04	bowl	272	unph	thumbled strip on carination
10	18	B04	bowl	372	unph	thumbled strip
10	19	B04	socketed bowl	351	unph	
10	20	B04	jar	219	8	pierced lugs
10	21	C03	jar	4	unph	inturned rim
10	22	C03	jar	106	12	combed decoration
10	23	C03	unid. vessel	703	9	combed decoration
10	24	C09	jug	575	13	handle inserted through hole in body
10	25	P34	tea bowl	212	15	

Table 2 Illustrated pottery

CERAMIC BUILDING MATERIAL

Ceramic building material amounts to 39 fragments of tile, weighing 2.812kg, of which only 7 fragments were recovered from phased contexts (Table 3). A small quantity of possible Roman tile was found, clearly residual in medieval phases. All of this material was hand collected during the excavation, examined in context group order and sorted by fabric type. None has been illustrated.

Type descriptions

Type 1: Sandy

Fabric: Orange throughout or occasionally with dark grey core. Hard and rough to touch, with rough fracture. Contains abundant, well sorted sub-rounded pink or milky white quartz, typically 0.2-0.4mm.

Forms: Brick, flat roof tile, ridge tile with glazed upper surface.

Date: Late medieval-post-medieval

Type 2: Sand and calcareous inclusions

Fabric: Orange throughout or with a dark grey core. Hard and rough to touch, with rough fracture. Contains abundant, well sorted sub-rounded pink or milky white quartz, 0.2-0.4mm, and common, well sorted calcareous inclusions 0.3-0.5mm.

Forms: Flat roof tile from unphased context.

Date: Late medieval-post-medieval

Type 3: Smooth buff orange with calcareous inclusions

Fabric: Pale orange throughout or with light bluish grey core. Hard and smooth to touch, with smooth fracture. Contains abundant, well sorted milky white quartz, 0.2-0.4mm, and sparse, ill sorted calcareous inclusions typically 0.5-3.5mm.

Forms: Flat roof tile.

Date: Late medieval/post medieval

TYPES	PHASES					
	1	2-7	8-12	13-14	15-16	modern/
RB brick/tile			2:149			
type 1			2:95	3:140		24:1739
type 2						1:28
type 3						7:661
TOTAL			4:244	3:140		32:2428

Table 3 Ceramic building material, expressed as sherds:weight (gms), by phase.

DISCUSSION

Flat roof tile is known to have been used in Bedford from the late 13th century (Baker and Hassall 1979, 253). The tiles from the High Street, however, probably relate to the late medieval/transitional and post-medieval periods. The few tile fragments from phases 8-12 are likely to be intrusive. Some post-medieval pottery was also intrusive in these phases. Peg holes occurred on 8 tiles while the presence of mortar on 7 fragments may be evidence of an additional fixing agent. Both round and square peg holes are recorded, although there appears to be no correlation with the fabric type. A single fragment of a green glazed ridge tile was found in an unphased context.

OTHER CERAMIC FINDS

Clay Pipes

Twenty fragments of clay tobacco pipes were recovered including six complete bowls which are tabulated below (Table 4) by type number (Baker and Hassall 1979, 241-253) and the Oswald (1975) equivalent.

Context	Phase	no	Type	Oswald no	Date
unstrat		1	1	4	1600-1640
239	18	1	2	none	pre 1704
137		3	3	24	1810-1840
417		1	4	28	1850-1900

Table 4 Clay pipe bowls

Makers' marks survive on two pipe bowls. That of Phillip Sawyer, a Bedford pipe maker who died in 1704 is located on the upper part of the stem, behind the bowl. The stamp, which takes the form

of the maker's initials (but with a reversed 'S'), within a ring of dots, is one of a number of variations used by this particular manufacturer. The second maker's mark belongs to a manufacturer, as yet unrecorded from Bedford, with the initials 'CB'. The letters are in relief on either side of the spur. Two pipe bowls, both 19th century forms, feature moulded decoration in low relief. The first, belonging to Oswald's type 24, features the three feathered Prince of Wales' crest and the second, an Oswald type 28, has an elaborate floral design.

REGISTERED AND NON-CERAMIC BULK ARTEFACTS

Ed McSloy

A total of twenty-five non ceramic registered artefacts were recovered from the High Street excavations. The bulk non-ceramic assemblage included worked flint, vessel glass, nails, stone roof tile and ferrous metalworking residues.

All iron registered artefacts and a selection of non-ferrous were submitted for X-radiography to Adrian Tribe of the Institute of Archaeology. The X-ray plates and conservation report form part of the site archive. Preservation of metal artefacts was very mixed; objects of iron survived in a fairly poor state of preservation, those of copper alloy and lead were generally less corroded.

The non-ceramic artefacts were assigned broad terms and functional categories, in accordance with the Bedfordshire Artefact Typology, and identified, quantified and, where possible, assigned a date range. The catalogue is organised by functional category with respective broad term components, in typological date order within each group. Where relevant, details of form, manufacture, parallels and suggested date have been discussed. Catalogue

entries are given only in cases where the artefact is typologically datable or of intrinsic interest. Objects that are demonstrably residual, or derive from unphased deposits, and do not contribute to the understanding of the site are not included in the published catalogue. A full record of these artefacts is, however, included in the site archive. The catalogue entries are prefixed by coding containing the following information:

Rf. 2	layer	(261)	phase 16	no 1
registered find number	context type	context number (fill/layer)	phase	illustration number

Buildings materials and fittings

Evidence of structures, encompassing building materials and fittings, was very limited and due to the nature of the excavation the majority of artefacts derived from deposits that were not securely stratified. Roofing material was represented by both stone tiles and a fragment of roofing lead, Rf 20 (405). The latter retained three nail holes two of which bear circular impressions of the nail heads. Broad slash marks on one side of the sheet might have been made when the sheet was removed, presumably for re-use.

The five fragments of stone roof tile represent at least three separate tiles as evidenced by three carefully executed and countersunk holes, designed to take fixing nails. No mortar survived on any of the tiles suggesting that the nails provided the sole means of fixing the roof in place. A crystalline substance on the surface of two tile fragments may have formed in the cavity between overlapping tiles. Two varieties of limestone are represented; a fine, whitish stone occurs in (405), whilst examples from (62) and (647) are yellowish and coarser, containing quantities of fossil shell. Possible sources for both stone types are the Jurassic limestones of north Bedfordshire or Northamptonshire. Stone roof tiles are known from previous excavations in the castle area (Baker and Hassall 1979) and in greater profusion from Northampton (Oakley 1979, 327). The vast majority of the Northampton stone tiles derived from 15th century contexts and, significantly, pottery associated with the tile from context (405), is datable to the 15th/16th centuries. The sole provenanced example from earlier Bedford excavations was found in an 18th century pit (Baker and Hassall 1979, 258).

The nail assemblage was limited to three examples, only one of which derived from a phased deposit (context (115) phase 18). Building fittings were restricted to single examples of keys and padlocks. Rf 23 is a type G1 key, characterised by a solid stem, slightly projecting tip and bit with wards generally perpendicular to the stem. The projecting stem acted with the bit to stop against the ward and allow the key to be used from either side of the lock (Goodall 1980, 152). Finds of G type keys become most prolific in the late medieval period and continue as the principal key type in post-medieval period. A 'G' type key from Norwich with an identical arrangement of wards is dated to the first half of the 16th century (Goodall, 1993, No 1294).

The barrel padlock, Rf. 24 (417), is too fragmentary to be properly classified or dated more closely than the medieval period. This fragment retains traces of two longitudinal strips or rods, originally set between the end plates, but otherwise is plain. The addition of such rods may have served as a strengthening device or else may be purely decorative (Goodall, 1980, 131).

Rf. 23, layer (417) Illus. no.1 Iron: Door key, type G1 (Goodall, 1980). Heavily corroded and missing most of (presumed) bow. X-ray revealed a fairly elaborate bit, with two ward cuts running to stem and two penetrating to approximately one third of the bit. Solid, round-sectioned stem, projecting slightly beyond bit. Length: 140 mm, height (bit) 40.5 mm, thickness (of stem) 9.1 mm.

Household

Fragments of at least four wine bottles were recovered. Firmly datable examples consist of an early long necked bottle with trailed 'string rim', dating to before 1652 (Hume type 1) from context (193) and a cylindrical bottle with convex profiled neck, string rim and thickened, down tooled rim (Hume type 22) dating to between c. 1790-1820 (Hume 1961, 91-97) from context (137).

Craft and industry

A total of 22904g of residues associated with ferrous metalworking was recovered and of this 20169g were from phased deposits (Table 5). Only a small proportion of this material is diagnostic of a particular process and the bulk of the material may derive from either iron smelting or smithing.

Evidence for Smithing

Material diagnostic of iron smithing comprises hearth bottoms and hammerscale. Hearth bottoms are characteristically of plano-convex form, with a

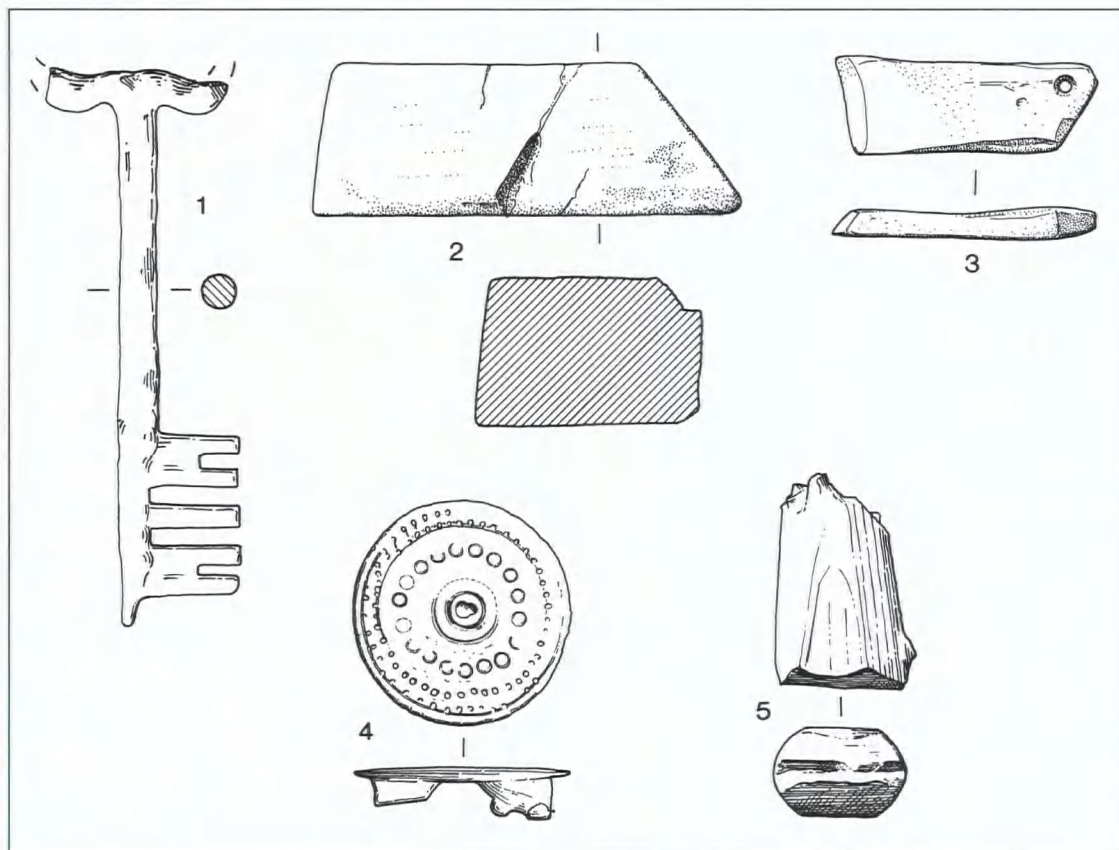


Figure 11 Illustrated Registered Artefacts (1-3 at 1:2, 4 and 5 at 1:1) –
See Table 6

rough underside and smoothed vitrified upper surface.

Quantities of both flake and spheroidal hammer scale were recovered, indicating that both primary smithing and secondary reworking occurred on the site (Starley 1995, 1).

Evidence for Smelting

Clear evidence for iron smelting is restricted to relatively small quantities of 'tap slag' – dense, brittle slag with angular, vitreous fracture and characteristic 'ropey' structure resulting from consecutive flows. A greater quantity was recovered of what is termed here 'dense ironworking slag'. This material is characterised by low vesicularity and in this respect resembles certain products of iron smelting.

Undiagnostic Ironworking Residues

Most of the slag recovered consists of vesicular material of fayalitic (iron silicate) composition of blocky or amorphous form. Such material can originate from either smithing or smelting. Similarly, vitrified hearth/furnace lining is not diagnostic of either process and results from high temperature reactions between the clay structure or lining from the hearth of furnace and the alkali fuel ash or fayalitic slag. Cinder is closely related to vitrified hearth/furnace but is lighter, more brittle and porous. It is formed as the result of high temperature reactions between the alkali fuel ashes and silica derived either from fragments of clay, spalled from the hearth/furnace lining or from sand introduced as a flux during smithing.

The formation of fuel ash slag is not confined to

iron working processes, and can result during elevated temperatures from the reaction between

alkaline fuel ash and silicates present in either a clay lining or in sandy ground surfaces.

	Early-mid Saxon	Saxo- Norman	Castle	post-castle	post-med/mod	
	Ph. 1	Ph. 2-7	Ph. 8-12	Ph. 13-14	Ph. 15-17	Total
Cinder	—	—	44	—	—	44
dense fe	2	161	1519	48	236	1966
fuel ash	—	5	—	—	—	5
hearth bottom	—	1657	—	—	—	1657
hearth lining	—	8896	352	1	—	9249
tap	—	514	128	—	2	644
undiaq fe	101	2722	3450	11	80	6364
fl. hmscl.	—	—	1	—	—	1
sph. hmscl	6	2	45	1	8	62
fl+sph hmscl	—	97	76	4	—	177
Total	109	14054	5615	65	326	20169

Table 5 Phased industrial residues by weight (gms).

Multi-purpose bladed tools and sharpeners

The two whetstones recovered illustrate well the range of size and form of this artefact type. Rf. 1, which is associated with pottery of 10th/11th century date, is of large proportion and may represent a type used to sharpen tools. By contrast Rf. 16 is much smaller, perforated for suspension possibly from a belt and almost certainly intended for personal use.

The stone used for both pieces is paralleled on previous excavations in Bedford and elsewhere. The materials used were quarried from outside the locality, making them classifiable as 'primary hones' (Moore 1978, 65). Possible sources for the stone might be the Peak District or Pennines and it is likely that they were imported as finished and usable items (Baker and Hassall, 1979 265). Perforated whetstones in similar stone to Rf. 16 are known from Grove Priory and there is some evidence its use was greater in pre-Conquest contexts (Duncan in prep.).

A whittle tang knife, Rf. 13 may also be included under this category. This item lacked a significant portion of the blade and consequently cannot be classified with any certainty.

Rf. 1, pit (070), phase 6 Illus. no. 2 *Micaceous sandstone*: Whetstone. Rectangular, wedge ended, broken into two fragments. Retains five surfaces, all but one of which appears to be smoothed through use. Length 115mm; width 55-61mm; depth 40mm.

Rf. 16, layer (138), unphased Illus. no. 3 *Indurated mudstone*: Whetstone. Trapezoidal, perforated for suspension. Smoothed

on all surfaces through use. Length 70mm; width 24-26mm; depth 9mm.

Trade and Commerce

'PACX' type coins are known to be produced from a number of mints in the period 1042-1044AD, including Bedford. Rf. 2 is unfortunately too fragmentary to determine either the moneyer or mint.

Rf. 2, Layer (104), phase 9. *Silver*: Penny of Edward the Confessor. 'PACX' type (BMC iv, Hild D). Obverse; left facing bust with sceptre, REX EDWARD. Reverse; Long cross, voided with circle in centre and each limb ending in crescent. Diameter 18mm. [not illustrated]

Objects of personal adornment and dress

Disc brooches such as Rf. 4 are datable to the 5th and 6th centuries, occurring most commonly in the period 450-550 AD south of a line between the Severn and the Wash (Dickinson 1976). The upper Thames region has in the past been highly productive of disc brooches and is likely to be a major production centre. As no comparable continental prototypes are known for the type it may represent an insular development, influenced by late Romano-British metalworking techniques.

Little variation has been noted in the technique of manufacture and Rf. 4 is typical in respect of being cast in copper alloy with the catch-plate and hinge bracket integral. It is however untypically small with most known examples of the type averaging

36mm in diameter. Stamped, punched and scored decoration is found on many disc brooches, however the scheme preserved on Rf. 4 is among the more elaborate. Some correlation between elaboration of ornament and the presence of white metal plating was noted by Dickinson (1976, 119). No sign of white metal plating survives on Rf. 4, although its clearly residual provenance and consequent poor state of preservation makes it conceivable that all trace of such treatment has been lost. No disc brooches are yet known to have been gilded and this, together with the use of copper alloy in their manufacture (or in one known case of lead alloy), suggests status secondary to that of saucer and applied brooches (MacGregor and Bolick 1993, 57).

Four further artefacts may be grouped in this category. 'Loop fastener', Rf. 25 (647 phase 17), which consists of a wire loop with ends twisted together, belongs to a class of artefact widely known from late medieval and early post-medieval contexts. Evidence for the use of such items as fasteners is provided by burials from St Margaret's Church, Norwich (Margeson 1993, 20). Glass bead, Rf. 8 may similarly date to the late medieval/post-medieval period, and as such is intrusive in its context (151 phase 8). The size and delicacy of this item is remarkable (< 2mm diam.). Beads made from a variety of different materials were used in the late medieval period as part of elaborate dress trimmings (Egan and Pritchard 1991, 305). Tiny glass and bone beads were also used to decorate wirework jewellery of late 15th and early 16th century date (Margeson 1993, 5). Rf. 26 (context (647) phase 17) consists of a copper alloy drawn wire pin shaft (wire gauge 0.6mm diameter). Drawn wire pins, characteristically with wound heads are known from as early as the 13th century. Shorter examples, of finer gauge were more prevalent in the post-medieval period. In the absence of the head, identification of the type is not possible although its recovery from a phase 17 deposit would seem to

confirm its post-medieval date. Large numbers of such pins were used to fix ruffs and pleated head dresses in the 16th and 17th centuries (Margeson 1993, 11) and the method of manufacture remained in use essentially unchanged until the early nineteenth century (Biddle and Barclay 1990, 564).

The final artefact belonging to this category is the remains of a shoe. Quita Mould writes "Rf. 27 probably derived from a shoe of turnshoe construction, datable to the medieval period. Clump repairs were however usually shaped to cover either the forepart of the shoe or the seat area of the sole. An alternative explanation is that this piece represents an outer sole of a shoe of turn-welted construction, datable to the 15th or earlier 16th centuries. Without other components the original shoe construction cannot be more closely identified."

Rf.4, Layer (061), phase 9 Illus. no.4 *Copper alloy*: 'Disc brooch' missing hinge and pin, and generally in poor state of preservation. Sub circular with moulded, scribed and punched decoration to face. Scheme consists of central pit, encircled by two concentric grooves, with a ring of small punched circles beyond these, and with two concentric rings of punched dots within a band around the edge of the brooch, delineated by two shallow circular grooves. Dimensions; diam. 28.6-30.4mm

Rf.27, (723), {borehole sample 75, from anticipated line of outer bailey ditch}, unphased. *Cattle Leather*: Fragment from clump sole repair piece to cover an entire shoe sole. Worn/torn away along the left side so that only the right side remains, toe and tread missing. Tunnel stitching is present along the right edge on the flesh side to attach it to the shoe sole. Three worn tunnel stitches present at the seat on the grain side indicate that the clump itself was repaired. Length, 194mm incomplete, width at seat, 66mm incomplete [not illustrated].

Objects of unknown function

Rf. 11, layer (106), phase 12 Illus. no.5 *Copper alloy*: Cast, tapering rectangular object with two opposed facets. The surviving end is bevelled and features a rough groove at angle. The opposing end is broken. Length 29mm; width 14-18mm.

The weight and solid construction of Rf 11 suggests a practical as opposed to purely decorative use. It is possibly part of a quillion although the weight of the surviving portion (34.6g) may argue against this. Alternatively it may have formed part of a household vessel.

Figure	Illus. no.	Description	Discussion section
11	1	Iron key Rf 23 (417)	Building Materials & Fittings
11	2	Whetstone Rf 1 (70)	Multi-purpose Bladed Tools & Sharpeners
11	3	Whetstone Rf 16 (138)	Multi-purpose Bladed Tools & Sharpeners
11	4	Copper alloy brooch Rf 4 (61)	Personal Adornment & Dress
11	5	Copper alloy object Rf 11 (106)	Objects of Unknown Function

Table 6 Illustrated registered finds

Overview of the registered and non-ceramic bulk artefact evidence

The small size of the artefactual assemblage, allows only limited conclusions to be drawn about the character of activity at the site. Typologically datable artefacts are few in number and the dates given are not at odds with those provided by the more prolific ceramic assemblage. Additionally the presence of a small assemblage of worked flint (six pieces in total), although residual suggests some earlier prehistoric activity in the area.

Early Saxon

Although residual, the Saxon disc brooch Rf. 4 provides further evidence for early Saxon activity in this area. Earlier excavations in the castle area (Baker and Hassall 1979, 20) revealed evidence for occupation underlying Saxo-Norman features and although the bulk of the ceramics recovered from these early features was dated to the 'early part of the middle Saxon period', a smaller number of sherds were characteristic of fifth to sixth century date (Baker and Hassall 1979 152).

Saxo-Norman

Only two registered artefacts, the coin of Edward the Confessor and a whetstone, can be assigned to this period. By contrast Saxo-Norman fabrics dominate the ceramics assemblage and structural activity of this date is attested. The comparative scarcity of non-ceramic finds may in part be reflective of the economy of the period; whereas pottery is seldom worth repairing and therefore was discarded, most metalwork, as a more valuable commodity, would be retained for re-use if it was capable of re-forging or casting.

Ferrous metalworking residues recovered from contexts attributed to this period strongly suggest industrial activity in the area (Table 7). Smithing and smelting type slags were both present, although the relatively small quantity of smelting slag, together with the absence of ores, makes it unlikely that such a process was carried out on site. Large quantities of undiagnostic ferrous slag and hearth/furnace lining were found in pits grouped in phase 6, together with smithing hearth bottoms and hammerscale. The association of this material makes it likely that all or most relates to smithing. The large quantity and bulkiness of this material, along with the presence of hammerscale, suggests that it was dumped in close proximity to the forge. The presence of both flake and spheroidal hammerscale may indicate more complex iron-smithing than just the shaping of metals.

Medieval

Non-ceramic artefacts datable to the medieval period by association or on typological grounds are poorly represented. Slight evidence for the presence of buildings may be indicated by the recovery of a stone roof tile fragment and lead offcut from phase 9 and lead came from phase 12 deposits. Ferrous metalworking residues are again much in evidence in this period, particularly in the dumped 'rampart' material in phase 9. This may be explained by its deliberate deposition as hardcore to strengthen the construction, the presence of hammerscale within these deposits indicating that it had not been moved far from the original deposition site. It is probable that this material originated from the earlier smithing activity in phase 6.

	Saxo-Norman						
	Ph. 2	Ph. 3	Ph. 4	Ph. 5	Ph. 6	Ph. 7	Total
Cinder	—	—	—	—	—	—	—
dense fe	7	12	—	90	3	49	161
fuel ash	—	—	—	—	5	—	5
hearth bottom	—	—	—	—	1657	—	1657
hearth lining	—	—	—	88	8808	—	8896
tap	61	—	12	41	400	—	514
unddiag fe	220	1	274	53	2174	—	2722
fl. hmscl.	—	—	—	—	—	—	—
sph. hmscl	—	—	—	1	1	—	2
fl+sph hmscl	—	3	6	33	55	—	97
Total	288	16	292	306	13103	49	14054

Table 7 Industrial residues from Saxo-Norman phases by weight (gms).

The later medieval period is slightly better attested. Finds include evidence for buildings, in the form of locking mechanisms and roofing materials, along with possible domestic activity represented by the fragment of shoe.

Post-medieval and modern

Non-ceramic finds of this date form the most numerous group from the assemblage. Standing buildings and documentary evidence provide a context for activity from the 16th-17th centuries, onwards while the artefactual assemblage reflects domestic activity in the form of wine bottles and dress fastenings.

THE ANIMAL BONES

Eden Hutchins

A total of 415 identifiable elements were recovered of which 142 (34%) could be assigned to phased contexts.

Of the phased elements, 74 were bovine (52%), which includes 30 horn cores, the majority of which were recovered from phases 15-17. The horn cores from the horner's pit [125] have been subjected to metrical analysis which suggests that they may be from improved short horn cattle, providing an early example of this innovation for southern England. This data forms the basis of a separate paper which is to be published elsewhere (Hutchins and Steadman forthcoming).

With the exception of the horn cores from the latest phases the remainder of the animal bone assemblage is wholly unremarkable (Table 8). The scarcity of animal bone from the Early-Middle Saxon ground surface (Phase 1) mirrors the paucity of finds of any kind from this phase. The animal bone assemblage from the pre castle, Saxo-Norman, deposits (phases 2-7) is typical of low status domestic sites. The faunal remains from the subsequent castle construction and occupation (phases 8-12) are similar, echoing the residuality observed within the ceramic assemblage. Many of

Element	PHASES																	
	1			2-7				8-12				13-14			15-17			Total
	Cattle	Pig	Sheep/goat	Cattle	Pig	Sheep/goat	Deer	Cattle	Pig	Sheep/goat	Deer	Cattle	Pig	Sheep/goat	Cattle	Pig	Sheep/goat	
Ulna				1	1	1		3	—	3								9
Radius				4		3	1	2	—	3							1	13
Hum.				1	1	1		1	1	4	1							9
Scap.				1				—	—	1					1			3
Tibia			1		2	2		2	—	6								13
Femur						1			—	1					1			3
Pelvis				1					—	1								2
Calc./																		
Ast./				3		5		3	2	3								16
Phal./																		
Met.	1		1	3	2	2		10	1	6								26
Horn				2				1		—					27			30
Cores																		
Mand.				1	—	1		3	1	—								6
Total	1	0	2	17	6	16	1	25	5	28	1	0	0	0	29	0	1	130

Hum. = Humerus

Scap. = Scapula

Calc. = Calcaneum

Ast. = Astagalus

Phal. = Phalanges

Met. = Metapodials

Mand. = Mandible halves

Table 8 Animal bone elements by species/phase. Phase 18 and unphased contexts have been omitted.

the elements show evidence for chopping and *flensing* (skinning and de-fleshing) and there is also some evidence for dog-gnawing and splitting to extract marrow. The absence of animal bone from the immediate post-castle period (phases 13-14) is consistent with the abandonment of the area.

TIMBER BUILDINGS SURVEY

Two timber frame buildings, with rear ranges, Nos. 29 – 31, front the High Street on a North-South axis.. The Royal Commission, with the assistance of Bedfordshire County Archaeology Service, conducted a rapid survey of their timber frames prior to refurbishment as retail premises. An Historic Building Report, No. 93669, has been prepared by A. Calladine of RCHM(E).

DISCUSSION

Despite the fact that only indirect evidence of occupation was recovered with no major structures encountered for any period, important evidence was discovered for the development of Bedford and its castle. Although the piecemeal nature of the recording means that even the most tentative interpretations need to be treated with caution, the results of the excavation should provide an important contribution to any synthetic work on the early development of the town.

PHASE 1 EARLY-MIDDLE SAXON

The absence of any structural remains suggests that this area was peripheral to Saxon occupation located nearby. However, the limited pottery assemblage from the earliest occupation horizon or ploughsoil, and the 6th century disc brooch discovered in a later phase, indicates some early Saxon activity on the site. The area was clearly not the subject of any intensive activity, however, and it is not until the Saxo-Norman period that a clearer picture of the nature of activity on the site emerges.

PHASES 2-7 LATE SAXON – SAXO-NORMAN, 9TH – 11TH CENTURIES

The presence of rubbish pits denoting yards to the rear of the High Street is not unexpected. The northern *burh* with its planned layout of streets may have been established as early as the 9th century and almost certainly by the early 10th century. The fact that rear boundary ditches were discovered no more than 10m to the rear of the street frontage demonstrates that property boundaries were initially laid out parallel to the High Street in the late Saxon period. The fills of the pits indicate that both

domestic and industrial activities were carried out on these properties. The rapid replacement of the boundary to the rear of the High Street suggests increased pressure for space on the street frontage. The subsequent backfilling of this boundary might suggest that properties were laid out at right-angles to the street by the end of this period.

In contrast, the quarry pits in the east of the site indicate limited activity which suggests that this area of the *burh* continued to be sparsely occupied. The flimsy post-built shed constructed over the backfilled quarry pits is consistent with the limited activity occurring at this end of the site. The clay-lined drain which meanders across the eastern end of the excavated area may have been related to industrial activity, possibly early metal working, carried out close by.

A subsequent increase in the level of domestic activity at the east end of the site is suggested by the possible stone-founded structure identified in phase 5 and the occupation debris recovered from the layers associated with it. The limestone blocks and domestic refuse within the rubble spreads which form the base of the outer bailey rampart could also indicate the presence of substantial structures on site.

This stone structure may have been related to the industrial activity which clearly occurred at this end of the site. The slags and hearth debris dumped into the pits to the north-east of the structure demonstrate that the area was given over to ironworking during the late Saxon period. The evidence from the pits indicates the presence of a smithy although no direct structural evidence for a forge was recovered. Deposits of iron slag and metal working residues from the site of the Howard Chapel, less than 100m to the north, (Steadman 1996) suggest that this industrial zone may have occupied the majority of the south-east quarter of the northern *burh*. Crossley has suggested that an active market for iron existed among the inhabitants of the Danelaw (Crossley 1981, 30) and it seems likely that this area of Bedford developed in response to that demand. The subsequent decrease in the quantities of features and artefacts from phase 7 suggests a decline in this iron working industry towards the end of the Saxo-Norman period.

PHASES 8-14 MEDIEVAL, 11TH-14TH CENTURIES

The apparent period of decline probably coincided with the construction of the earliest motte and

bailey castle which is thought to have been built in the late 11th or early 12th century (Baker 1979, 10).

The addition of the outer bailey in the late 11th or early 12th century largely obliterated the eastern end of the site. The rubble spreads show that structures were cleared to make way for the outer bailey which may have been marked by a low bank initially. The bank, formed from earlier occupation debris with industrial slags added to its core for strengthening, possibly preserved traces of internal revetment. It would almost certainly have been topped by a timber palisade or curtain wall (Clarke 1984, 109), although no evidence for this survived. A period of occupation within this early outer bailey is suggested by post holes and an accumulation of clay silt and domestic refuse to the rear of the early bank. Subsequently, the rampart appears to have been consolidated on a massive scale, although no traces of the stone lining mentioned in documentary sources and uncovered elsewhere (Baker *et al* 1979), were recovered. The results of the piling provide the clearest indication so far of the western extent of the outer bailey. The line of its rampart and

ditch appears to cross the site c.32m from the present line of the High Street (Fig 12).

The fact that it was not possible to excavate a section across the ditch means that much evidence remains to be discovered. However, the limited recovery of finds from the upper fills of the ditch hints at the kind of structures which might have been found within the outer bailey. The splashes of molten lead and the lead strips probably derive from flat-roofed structures (Kenyon 1991, 168).

The abandonment of the castle site after its destruction in 1224 and its subsequent neglect, is demonstrated by the paucity of finds of later medieval and early post-medieval date. The abandoned castle ditch is cited in documents as the rear boundary for properties on the High Street. Clearly by this time properties were laid out at right-angles to the street.

PHASES 15-17. POST-MEDIEVAL, 17TH-19TH CENTURIES

This derelict site on the outskirts of the town obviously provided an ideal location for the animal

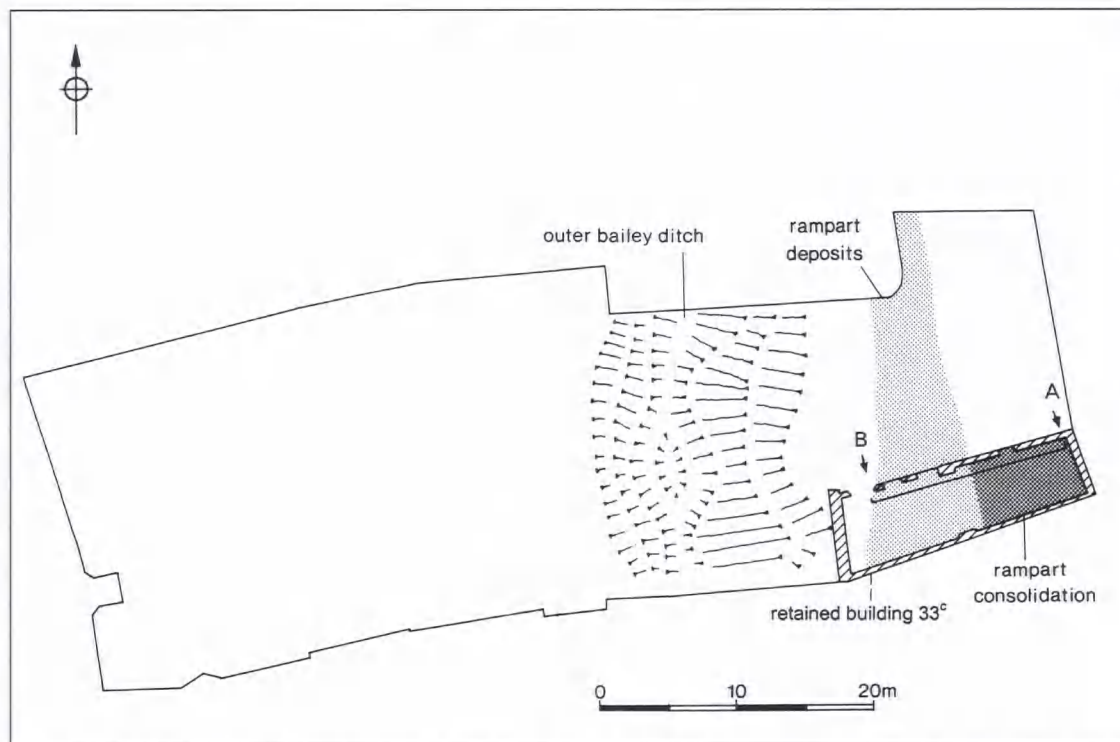


Figure 12 Contours of load bearing geology encountered during piling showing position of Outer Bailey ditch with associated rampart deposits observed during ground reduction

processing industry which appears to have been established in the early 18th century. During the post-medieval period related trades would often cluster around suitable areas with noxious trades, such as tanning, banished to the outskirts of towns. Tanneries, which supplied secondary products to other industries including horners, would have operated in most towns in the post-medieval period (Crossley 1990, 219). The butchers' shops or shambles discovered on the north side of St Paul's Square, approximately 100m to the west (Baker, 1987), reinforce this picture of an area now dominated by animal processing.

Analysis of the horncore assemblage from pit [125] indicates that the majority of the cattle were the product of a localised breeding programme involving the selection of certain cattle or the introduction of new breeds to produce bigger cattle or increase milk yields (Hutchins and Steadman forthcoming). Although these cattle do not display all the characteristics of the fully improved breeds produced by Robert Bakewell or the Colling brothers they suggest, nevertheless, that advances in livestock husbandry were occurring in Bedford in the late 17th and 18th centuries.

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Acquisitions and enquiries at Luton Museum 1996-97

ROBIN HOLGATE

INTRODUCTION

This article provides information on the most significant archaeological acquisitions and objects brought for identification to Luton Museum in 1996-97. It does not include archaeological material acquired through excavation or other fieldwork which is published in full reports elsewhere.

Objects are grouped chronologically under general period headings. Provenances are given as the parish, followed by locality detail and the grid reference where appropriate.

Luton Museum offers an identification service free of charge and is always pleased to consider offers of appropriate archaeological material from the southern half of Bedfordshire for its collection. For further information please contact the Curator, Luton Museum Service, Wardown Park, Luton LU2 7HA: tel. (01582) 546719.

MESOLITHIC/NEOLITHIC/BRONZE AGE FLINT

Stopsley, Luton TL 106 237

Flint axe or adze of Mesolithic tranchet type, 108 mm in length and 44 mm maximum width, found at a depth of 1.5m in subsoil whilst digging a pond in the rear garden at 32 Ashcroft Road.

LTNMG general enquiry.

FLINT

Caddington TL 06 19

A flint implement used either as a piercing or scraping tool of neolithic or Bronze Age date from the surface of a ploughed field near Caddington.

LTNMG enquiry 4619.

METALWORK

Gaddesden Row

Nine bronze fragments recovered from a ploughed field near Gaddesden Row, the largest 70 mm in length, six of which are sword fragments and three are socketed spearhead fragments. The sword

fragments appear to represent at least two different swords, whilst the spearhead fragments represent two different spearheads, all broken in antiquity. Although fragmentary, all pieces could be contemporary, dating to either the Penard or Willington later Bronze Age metalworking traditions (1,200-900 BC). They could represent part of a bronzesmith's scrap metal hoard.

LTNMG enquiries 4545/4551.

ROMANO-BRITISH

COIN

Luton/Runfold

TL 080 246

Sestertius of Titus, AD78-80, in poor condition, found in the rear garden at 33 Dewsbury Road, Luton.

LTNMG enquiry 4699.

COIN

Luton

TL 10 20

AE 3 of Constantius II, AD337-361, in good condition, found on the Brache estate. Obverse: CONSTANTIVS AVG. diademed head facing right. Reverse: GLORIA EXERCITVS two soldiers standing either side of standard.

LTNMG enquiry 4528.

MEDIEVAL

POTSHERDS

Streatley

TL 07 28

Over 100 fragments of medieval pottery, including fragments of jugs, bowls and other vessels, were found whilst digging in the rear garden at 64 Sharpenhoe Road. The jug fragments include examples of Hertfordshire-type grey ware (12-13th centuries in date), orange ware (12th-13th centuries in date) and glazed ware (14th-16th centuries in date), whilst the bowl fragments include examples of shelly St Neots/Harold-type shallow bowls (11th-12th centuries in date).

LTNMG 1996/246.

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