

Worcestershire Archaeology Research Report No.6

Archaeological investigations at

**CHURCH FARM WEST,
BALL MILL QUARRY, GRIMLEY**



Jonathan Webster

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**Archaeological investigations at
Church Farm West,
Ball Mill Quarry, Grimley**

(WSM 39877)

Jonathan Webster

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Front cover illustration: investigation of a Romano-British enclosure ditch

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Summary

A series of archaeological investigations culminating in the excavation of a 10.7ha area was undertaken at Church Farm West, Ball Mill Quarry, Grimley, Worcestershire, on behalf of Tarmac Limited ahead of mineral extraction. The excavation covered the majority of a Scheduled Ancient Monument (SAM WT 209) and was completed under Scheduled Monument Consent. The granting of the consent followed the recognition of the detrimental impact on the monument of both historic and ongoing arable cultivation. This had resulted in severe truncation of archaeological deposits at the site to the extent that only the much reduced remains of larger features such as enclosure ditches and pits survived. Almost no evidence of internal structures or associated activities remained.

The excavations focused on the exposure and recording of a series of surviving enclosures which had been identified through cropmark evidence and subsequent archaeological evaluation. The work revealed a complex sequence of enclosures with associated tracks and field boundaries that were established and remodelled on successive occasions from the Iron Age through to at least the 3rd-4th centuries AD. Although occupation of some areas of the site is attested by quantities of domestic refuse present in ditches, the enclosures are suggested to have been predominantly used for holding large quantities of animals brought to the site prior to movement onwards to their final destination in a fashion not dissimilar to modern cattle markets. Whilst the initial phases of enclosure were simple large rectilinear areas, later versions included internal divisions and a funnelling system towards the entranceway probably designed to allow easier control in the movement and separation of animal herds. Large dumps of burnt material and pottery were recovered from the ditches of one of the enclosures and were indicative of industrial activity occurring in the 3rd century AD before abandonment of this area during the 4th century.

Whilst the majority of material and features revealed were Romano-British in date, artefacts and a sparse scatter of features also provided evidence for activity across the area from at least the Late Neolithic/Early Bronze Age onwards; however, this early activity at most related to short-lived episodes of temporary occupation and in the case of several Beaker pits may potentially have a relationship to a series of nearby ring-ditches and other evidence of funerary activity. Rare evidence of early medieval activity was also identified in the form of a sunken featured building and associated pottery. Although it is possible that this reflects continuity of occupation from the late Roman period, it seems from ceramic evidence that there was a hiatus in activity at the site for at least 300 years from the late 3rd century through to sometime in the 7th century.

The excavations at Church Farm West, Ball Mill Quarry, Grimley, have provided an important opportunity to investigate the evolution of a large rural settlement including the detailed examination of four complete enclosures, associated field systems, trackways and the immediate environs. This has provided an insight into changing patterns of inhabitation within the local landscape in this part of the Severn Valley from early prehistoric mobile communities to the permanent enclosures of the Iron Age, Romano-British and early medieval communities.

Planning background

An archaeological excavation was undertaken at Church Farm West, Ball Mill Quarry, Grimley, Worcestershire on behalf of Tarmac Limited within a Scheduled Ancient Monument (NGR SO 8300 6135; SAM WT209; Fig 1).

The excavation was undertaken prior to mineral extraction and was required as part of the planning permission granted by the Mineral Planning Authority (MPA; Application no. 407702) and also to meet the terms of a Scheduled Monument Consent (SMC; dated 24 June 2008; ref HSD 9/2/10343). The granting of the SMC resulted from recognition that deposits at the site could no longer be considered of national significance due to the detrimental impact on the monument of both historic and ongoing ploughing (Miller *et al* 2003; Deeks 2004). The latter had severely truncated the site to the extent that only the much reduced remnants of larger features such as enclosure ditches and pits survived whilst almost no evidence of internal structures or activity remained. The consent therefore covered both the excavation, analysis and reporting of archaeological deposits within the Scheduled Area and the subsequent extension of Tarmac Limited's quarrying operations into the area covered by the SAM and as defined in the WHEAS document *Project Design: Excavation at Church Farm West, Ball Mill Quarry, Grimley, Worcestershire* (dated 14 May 2008).

The site had first been recognised from an extensive series of cropmarks believed at the time to be prehistoric and Romano-British in date and these led to the site being designated a Scheduled Ancient Monument in 1977 (SAM WT209). The excavation reported here followed earlier project stages commencing in 1997 when the quarry owners of the time, Nash Rocks Limited, commissioned a desk-based assessment (Edwards 1997; Cox 1997). This comprised the collation and analysis of all known information regarding the site and its immediate environs, and also included the plotting of cropmark evidence and detailed consideration of the impact of historic and ongoing ploughing. This showed that the site lies in an area containing relatively intensive evidence for prehistoric, Roman and later activity (Fig 2). The desk-based assessment was followed some years later by a programme of field evaluation. This commenced with a geophysical survey targeting a large proportion of the site with additional detail focused on the known areas of high cropmark density (GSB 2002). This demonstrated a close correlation with the previous aerial photographic work (Cox 1997; Fig 3) and was followed by a programme of fieldwalking that revealed evidence of both prehistoric and Romano-British activity (Miller and Darch 2003). The final stage comprised evaluation trenching across the entire area (Deeks 2004). This indicated that smaller discrete features and any horizontal stratigraphy that may have been present had been heavily or entirely truncated with the cropmarks surviving almost solely in the form of deep cut features such as enclosure ditches. Following completion of the evaluation, it was recognised by English Heritage that the cropmark complex had been sufficiently degraded by long-term arable cultivation to be no longer deemed worthy of long-term protection through scheduling. This enabled the SMC to be granted for mineral extraction following a programme of archaeological excavation of the area identified for quarrying (Fig 4).

The ensuing excavation was undertaken in two separate phases according to a project design approved by English Heritage as part of the SMC (HEAS 2008a). The first phase (Phear 2009) was completed between 28th July and 13th October 2008, whilst the second phase (Webster 2010) was undertaken between 10th August and 20th November 2009. The fieldwork has been registered by the Historic Environment Record with the reference WSM 39877.

Research frameworks

On completion of the evaluation stages of the investigation and prior to excavation a number of research aims were identified in the Project Design (HEAS 2008a) for each of the main chronological periods expected to be encountered. These aims were drawn from the local regional research frameworks established in recent years, including the West Midlands Regional Research Framework (http://www.iaa.bham.ac.uk/research/fieldwork_research_themes/projects/wmrrfa/index.htm) and the resource assessment and research agenda specifically developed for aggregate producing areas in Worcestershire (Jackson and Dalwood 2007; <http://www.worcestershire.gov.uk/home/wccindex/wcc-arch/wcc-archaeology-aggregates.htm>). These were subsequently re-assessed and adapted as appropriate during the fieldwork and within the final research frameworks identified for the site within an Assessment and Updated Project Design (Webster 2011).

The following research aims are those which have been addressed:

Bronze Age deposits

- Research Aim 1: Late Neolithic/Bronze Age activity in the landscape
- Research Aim 2: Bronze Age landscape use and agricultural practice

Iron Age deposits

- Research Aim 3: Iron Age domestic settlement
- Research Aim 4: Iron Age regional identity and chronology
- Research Aim 5: Iron Age landscape use and agricultural practice

Romano-British deposits

- Research Aim 6: Roman settlement patterns, landscape utilisation and economy
- Research Aim 7: Regional identities and cultural and economic expression
- Research Aim 8: Town and country during the Roman period

Post-Roman and Anglo-Saxon deposits

- Research Aim 9: Post-Roman and Anglo Saxon settlement patterns
- Research Aim 10: Regional identities and cultural and economic expression

Methods

Standards and guidance

The project conformed to a brief prepared by the Service (HEAS 2001) for which a project proposal (including detailed specification) was produced (HEAS 2003) and later updated to fully define the excavation stage (HEAS 2008a).

Subsequent to completion of the fieldwork, an assessment and updated project design was produced (Webster 2011) which summarised and assessed project results within the framework provided by local, regional and national research agenda documents as well as defining the programme of analysis reported here.

The project also conformed to the *Standard and guidance for archaeological field evaluation* (IFA 2008a), *Standard and guidance for archaeological excavation* (IfA 2008b) and the *Standards and guidelines for archaeological projects in Worcestershire* (HEAS 2008b).

All stages of the project were approved and monitored by both English Heritage and the Worcestershire Planning Advisory Service and undertaken under scheduled monument consent.

Desk-based assessment and documentary research

The project commenced with a desk based assessment completed in 1997 (Edwards 1997) on behalf of the then owners of the quarry, Nash Rocks Ltd. This assessment collected and analysed all of the known information pertaining to the site and its immediate environs, encompassing its archaeological background, modern and historic land use. The assessment also included a detailed transcription of the known cropmarks (Cox 1997; Fig 3).

Following an extended programme of further assessment (comprising both non-invasive and invasive investigation) and subsequent excavation completed in 2008-9, further information was gathered to provide an appropriate research framework for the completion of the programme of analysis reported here.

The following sources were consulted during the course of the project:

Cartographic sources

- Map of Glebe lands in the parish of Holt, 1777 (BA 10819/1 850)
- Holt tithe map 1839 (BA 1572 8760/356)
- Ordnance Survey County Series map 1:10560
- Beard *et al* 1986
- British Geological Survey 1976
- British Geological Survey 1990

Documentary sources

- A terrier of all the houses, gardens, orchards, lands and tythes belonging to the Rectory of Holt taken September 16: 1714 (BA 10819/2 850)

- Bond 1973
- Cornah and Webster 2011
- Cox 1997
- Deeks 2004
- Edwards 1991
- Edwards 1997
- English Heritage 1994
- Fagan 1992
- GSB Prospection 2002
- Hurst 1995
- Miller *et al* 2003
- Phear 2009
- Webster 2009a
- Webster 2009b
- Webster 2010
- Wilson 1982
- VCH 1913

Fieldwork methodology

Evaluation

Following the desk-based assessment an evaluation was undertaken and completed in three stages, each stage informing and refining approaches for the next. The design for the evaluation (HEAS 2001) incorporated the desk-based assessment and was based around traditional archaeological evaluation approaches; however, it also included an assessment of the likely impact of arable cultivation and erosion upon deposits at the site. The latter work informed and influenced further data collection and consideration of these aspects of site history throughout the evaluation, leading to incorporation of an assessment of the impact of erosion on the site in the evaluation report. This work was commissioned by Tarmac Western Limited who by this time owned the quarry.

Stage 1 comprised a geophysical survey (GSB 2002), sampling a large proportion of the excavation area for anomalies using gradiometers in scanning mode followed by a more detailed survey of three rectangular blocks totalling 2 hectares (Fig 3). The resultant interpretive plot of the main anomalies in the main mirrored that of the cropmark plot, though each showed slightly different lesser features.

Stage 2 comprised fieldwalking and metal-detecting, which produced slight evidence for prehistoric activity, namely two worked flints, and rather clearer evidence of Romano-British activity in the form of 160 sherds (642g) of pottery mainly concentrated within the area of greatest cropmark activity (Miller *et al* 2003).

The final stage comprised evaluation trenching which was undertaken across the entire proposed extraction area (Deeks 2004). This indicated that the cropmark complex principally survived in the form of deep cut features such as enclosure ditches. Limited evidence for both Bronze Age and Iron Age activity was revealed and appeared to be domestic in origin; however, the most commonly surviving features were enclosure ditches dating to the Romano-British period. These largely correlated to the more substantial features plotted on both the aerial photographic and geophysical evidence, although a substantial percentage of the lesser cropmarks features were demonstrated to no longer survive. Considerable quantities of Romano-British domestic pottery and other material classes were present in some of the enclosure ditches and in shallowly surviving pits but the more ephemeral features typically encountered on domestic sites (postholes, gullies, ovens, yard surfaces, etc) were largely absent and overall the quantities of finds were low for a Roman settlement in this area. Five principal enclosures were identified, Enclosures A-E, of which four (A-D) lie within the final area of excavation; the fifth (Enclosure E) lying to the south of the quarry access road in an area excluded from the finally agreed and permitted extraction area (Fig 4).

These features were interpreted as relating to a succession of enclosures associated with stock control as well as limited domestic occupation. However, the results of factors such as ploughing and soil erosion were plainly evident and no associated internal surfaces or structures were identified during the evaluation. It was this evidence for the truncation and degradation of the archaeological deposits which resulted in the granting of SMC and planning permission for the archaeological excavation of the extraction area prior to quarrying.

Excavation

Topsoil and subsoil stripping was undertaken by a 360 tracked excavator employing a toothless bucket with spoil removed by two 30 tonne dumpers working in succession.

Phase 1 was completed over an 11 week period during the Summer and Autumn of 2008; the stripping taking place by dividing the phase into three separate site areas (Areas 1-3; Fig 5). Located outside of the area with identified enclosures, Area 1 (soil storage/bund) was orientated north-south and comprised c.11,425m². Area 2 (c.11,925m²) covered a 50m wide corridor along the southern limit of the investigated area. Area 3 (c.33,200m²) was situated in the central area of the SAM where Enclosures A and D were located.

Phase 2 stripping was completed over an 8 week period during the Summer of 2009, commencing in the north-west corner of the site and being undertaken through a system of long narrow strips, moving north to south. The archaeology was recorded following the order of stripping and focused primarily on those areas devoid of complex archaeological features; thus Area 4 was completed first, and Area 5 recorded last.

All machine excavation was undertaken under close supervision of an archaeologist and an area amounting to just over 10.5ha was excavated in total.

Subsequent investigation was undertaken by hand (Fig 6). Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Service practice (CAS 1995). All features recorded are shown in Figures 7, 8 and 9.

Features were sampled excavated as follows:

- All early prehistoric features were fully excavated;
- All structural features (e.g. postholes and hearths), burials, industrial structures (e.g. ovens and kilns) etc. were fully excavated;
- Other discrete features (e.g. pits) of late prehistoric or later date were excavated to a minimum of 50% based on the potential for the recovery of important material or ecofactual assemblages;
- Linear features (e.g. ditches and gullies) were excavated to a minimum of 10% or until a full understanding of the feature could be ascertained. All intersections were sampled to establish relationships and a higher percentage of excavation occurred in areas of potential domestic activity;
- Occupation layers were excavated to a minimum of 50% with a higher percentage for prehistoric layers.

On completion of any given phase of archaeological excavation, the area recorded was examined by English Heritage and an interim archive statement (Phear 2009, Webster 2009a-b, Webster 2010) was compiled before the area was signed off to enable mineral extraction to commence.

On completion of the excavation, an assessment and updated project design (Webster 2011) was undertaken to provide a research framework on which this report has been based.

Post-fieldwork methods

Structural assessment and analysis

All field records were checked and a stratigraphic matrix produced. Site surveys were checked and collated into a single drawing showing all features and deposits.

Key structural and depositional information was recorded on a project database (Microsoft Access 2000) which also integrates artefact and ecofact data.

Assessment and analysis were undertaken drawing on a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

Radiocarbon dating methodology

Two samples were submitted for Accelerator Mass Spectrometry (AMS) dating to the Scottish Universities Environmental Research Centre (SUERC) radiocarbon dating laboratory (Table 1).

The first sample (SUERC-38163 (GU26173)) consisted of a charred *Triticum* sp (wheat) grain recovered from context 1759, a heavily burnt deposit identified in the base of a feature identified as a Sunken Featured Building of early medieval date.

The second sample (SUERC-38164 (GU26174)) was a carbonised/burnt residue present on a sherd of chaff-tempered ware (Fabric 99) thought to date to the late 5th – early 7th (Laura Griffin, pers comm) and was also recovered from context 1759. The pottery sherd does not appear to have been heavily burnt, merely sooted on the outer edges and the residue was securely within/on the sherd of pottery and was therefore not staining or contamination from the surrounding heavily burnt context. The burnt residue was removed using a sterile scalpel following gentle (dry) cleaning to remove extraneous material.

Table 1: Radiocarbon dating results

Laboratory code	Context number	Material	$\delta^{13}\text{C}$ relative to VPDB	Radiocarbon Age BP	OxCal calibrated age (95.4% probability or 2 sigma)
SUERC-38163 (GU26173)	1759	Charred grain: <i>Triticum sp</i>	-22.1 ‰	1265 ± 35	Cal AD 665 to 828 (90.8%) AND Cal AD 838 to 866 (4.6%)
SUERC-38164 (GU26174)	N/A	Carbonised pot residue	-26.3 ‰	1295 ± 35	Cal AD 655 to 779 (95.4%)

No sources of contamination or non-contemporaneous carbon were evident during the fieldwork or during the subsequent sub-sampling.

All calibrated dates are identifiable by the prefix 'Cal'. Where calibrated date ranges are cited in the text, these are for 95% confidence.

Artefact methodology

Laura Griffin

Artefact recovery policy

The artefact recovery policy conformed to standard Service practice (CAS 1995; appendix 2).

Method of analysis

All hand retrieved finds were examined and a primary record was made on a Microsoft Access 2000 database. They were identified, quantified and dated to period. A *terminus post quem* date was produced for each stratified context. The date was used for determining the broad date of Periods defined for the site. All information was recorded on *pro forma* sheets.

The pottery and ceramic building material was examined under x20 magnification and recorded by fabric type and form according to the fabric reference series maintained by the service (Hurst and Rees 1992; Hurst 1994; and www.worcestershireceramics.org).

Artefacts from environmental samples were briefly scanned, but none were worthy of comment, and they are not included in quantifications presented.

Environmental archaeology methodology

Alan Clapham and Nicholas Daffern

Sampling policy

The environmental sampling policy was as defined in the County Archaeological Service Recording System (1995 as amended).

Samples of 10 litres were taken from a total of 20 contexts, all Romano-British in date during the evaluation trenching. During the main excavation 10-40 litres samples were taken from a total of 203 contexts which were of prehistoric through to post-Romano-British in date. These samples were retrieved from any features noted on site as having potential for the preservation of organic remains or those which displayed evidence of burning.

Method of analysis

In total 204 environmental samples were selected for assessment. For each selected sample, a sub-sample of 10 litres was processed by flotation using a Siraf tank. The flots were collected on a 300µm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were fully sorted by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammscale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by the Service, and a seed identification manual (Cappers *et al* 2006). Nomenclature for the plant remains follows the New Flora of the British Isles, 2nd edition (Stace 2010).

Hand collected animal bone was rapidly quantified and examined to establish predominant species and condition of the bone.

Statement of confidence in the methods and results

The quality and thoroughness of the investigation processes that was undertaken at Church Farm West have enabled a complete picture of the development and evolution of the site to be compiled. The specific methods employed allowed the investigation of individual features to be undertaken in such a way that changes of understanding during the post excavation phase could be made with confidence and with the data to hand. Whilst unfortunately the later ploughing had truncated many of the more discrete features noted during the cropmark and geophysical assessments, those that had survived were able to be understood with a high level of confidence.

Topographical and archaeological context

The excavation area was a single land parcel measuring 10.7ha, bounded to the west by the A443, to the north and west by tracks leading to Top Barn Farm, and to the south by an access road to the Quarry site (Fig 4).

The area lies at c.30-34m AOD (Above Ordnance Datum), on the western river terrace of the Severn, on a small plateau in a bend of the Grimley Brook, and to the south-west of a small eminence upon which Top Barn Farm lies.

The soils are typical brown earths of the Hall and Wick series (Beard *et al* 1986). Brown earths of this subgroup (541) are permeable, well-drained, non-calcareous loams or clays. The Underlying geology consists of Pleistocene and recent drift deposits of glacial origin forming the third terrace of the River Severn, overlying Upper/Middle Triassic Mercia Mudstone (Formerly Keuper Marl; BGS 1976 and 1990).

The excavation area was located within an extensive series of multi-period and superimposed cropmarks, first observed in the 1950s by A Baker and J Pickering (Hunt *et al* 1986). These were initially mapped between 1969 and 1970 (Bond 1973) and subsequently plotted in detail by the Royal Commission on the Historic Monuments of England (RCHME). On the basis of the morphology of these cropmarks which were indicative of prehistoric and Romano-British settlement, the site was designated a Scheduled Ancient Monument in 1977 (SAM WT209; WSM 4507; Fig 2: site). Further Scheduled Ancient Monuments lie to the south and south-east including further cropmark sites of probable Iron Age and/or Romano-British date (WT 213 and 243; Fig 2: WSM 4516 and WSM 2584).

The 2008-9 excavation area represented the largest surviving element of this original complex of cropmarks. Plotting of cropmarks allied to the results of previous, albeit limited, programmes of fieldwork completed over the past 40 years allows the broad context of the site and surrounding landscape to be established with some degree of confidence. Since their initial mapping, a substantial percentage of the cropmark series has been systematically removed by quarrying. This led to a number of rescue excavations being undertaken between 1970 and 1975, facilitated by a combination of private, voluntary and government bodies (namely the quarry companies, Avon-Severn valleys Research Committee, Department of the Environment and English Heritage). The results of these excavations (Hunt *et al* 1986; Fig 2: centred on WSM 4525 and 4531), provided evidence for indeterminate late Neolithic and Beaker period activity. Four Bronze Age ring ditches were investigated, two of which produced cremations and a range of Early Bronze Age pottery, including a group of collared urns. A rectilinear enclosure of probable Iron Age date was partially excavated, with two smaller rectilinear structures of indeterminate function revealed inside, together with a number of pits, postholes, and pottery dating from the Romano-British period. This pottery consisted of worn and abraded material, and it was not possible to determine if this was the result of manuring or re-deposition from disturbed archaeological features.

Subsequent work in the late 1980s and 1990s concentrated on establishing whether further cropmarks in this vicinity as plotted by the RCHME survived as buried features (Edwards 1991). Excavations conducted to the northwest of Holt demonstrated that truncated cut features did survive in these areas, the majority of which dated to the post-medieval period with the exception of one enclosure ditch assigned to the Iron Age. Work carried out to the

east of the Scheduled area (Fagan 1992; Fig 2: WSM 29176), again concentrated on an area of cropmarks. This evaluation revealed two field boundary ditches, interpreted as Neolithic in date, and a scatter of worked flint recovered during fieldwalking.

In 1991, salvage recording was carried out in accordance with SMC granted for the construction of an access road, which now forms the southern site boundary. This work identified a number of features of Late Iron Age and Romano-British date including a number of tree throws that appeared to be in a line, perhaps representing a boundary, and ditches of Roman and prehistoric date (Edwards 1991).

A watching brief along the line of a proposed conveyor belt, to the west of the village of Grimley, revealed a considerable number of features of prehistoric and Romano-British date (Jackson 1991; Fig 2: WSM 29807), two of which correlated with features showing as cropmarks. Other features included ditches, pits and postholes, and were interpreted as agricultural, including a four-post structure. There were few finds however despite the number of features and so detailed understanding on the development of the site could not be undertaken. Recent mineral extraction in the field to the immediate north-west of this conveyor showed that while the known Romano-British field boundary ditch continued, the area as a whole was characterised by the distinct lack of archaeological features (Cornah and Webster 2011). In addition, at the north end of the village of Grimley, a watching brief was carried out on two pipe trenches through the cropmark of a Romano-British fort (Hurst 1995; Fig 2: WSM 2584 and 22791), producing evidence that dated the site to the 2nd century, and indicated the survival of some internal features.

Further investigations focused on the cropmarks to the south and south-east by archaeological evaluation in 2003 (Deeks *et al* 2004). Whilst most of the known features had already been removed by cultivation and soil erosion, a number of amorphous hollows and irregular depressions were revealed. These have been interpreted as remains of an orchard or hop yard first noted within the mapped sources on the 1840 Grimley tithe map, as opposed to relating to prehistoric or Romano-British activity.

In 1997 the then Quarry owners Nash Rocks Ltd began to explore the possibility of extending quarrying operations into the area of investigation leading via a staged programme of pre-determination evaluation (Edwards 1997; Cox 1997; GSB 2002; Miller *et al* 2003; Deeks 2004) to the full excavation of the area (Phear 2009; Webster 2009a and b; Webster 2010 and 2011). The evaluation included the current area of investigation as well as two additional areas, a narrow strip of land to its east and a further field to the south, both of which lie immediately outside of the monument boundary (Fig 4). Results from the evaluation programme have been fully incorporated into this report.

Structural analysis

Phasing

The excavation and earlier evaluation stages produced not only extensive evidence for a multi-phased Iron Age and Romano-British site but in addition for discrete areas of both earlier prehistoric and early medieval activity (Figs 7-9). Deposits of post-medieval and modern date were also recorded.

Contexts could be assigned to nine periods:

- Period 1 Geology
- Period 2 Prehistoric deposits
- Period 3 Bronze Age deposits
- Period 4 Iron Age deposits
- Period 5 Romano-British deposits
- Period 6 Post-Roman/Early medieval deposits
- Period 7 Medieval deposits
- Period 8 Post-Medieval/modern deposits
- Period 9 Undated deposits

Description by phase

Period 1 Geological deposits

A considerable number of 'pit' like features were identified throughout the archaeological investigations which have been attributed to glacial activities. Excavation of a representative sample of these showed them to contain distinct, well-sorted fine silty fills which were entirely devoid of finds. These were the result of rapid infilling by wind blown (loessic) sediments of probable early Holocene date, and are grouped along with other features resulting from glacial and immediately post glacial period activity such as ice wedges. In addition, to this a number of irregular linear features orientated north-west/south-east and north-east/south-west were noted running across the site. After a number of investigative slots revealed irregular sides and base, along with fine slit rich sterile fills, these linears were identified as longitudinal furrows related to glacial meltwater. This type of feature is known to have formed parallel to the ice flow in the initial stage of glacial melt spillway as part of an anastomosing channel development (Benn and Evans 1998, pp318-9, 345; Professor Tony Brown University of Southampton pers comm.).

A further class of natural feature identified took the form of irregular rather D-shaped pits with poorly defined bases and silty sterile fills typical of tree-throws (i.e. depressions left by the uprooting of the root bole of a tree; Luke 1996; Evans *et al* 1999; Langohr 1993). While it has been considered that these may have been an indicator to deliberate land clearance no evidence for this hypothesis was noted during the excavations or the later research and investigation. Whilst we can say with certainty that the area was clear of woodland by at least the beginning of the Iron Age, there was no conclusive proof to show that this had been caused by deforestation as opposed to changing environmental factors.

Period 2 Prehistoric activity

No deposits were found pre-dating the Bronze Age; however, a number of earlier prehistoric flints were recovered through fieldwalking and as residual finds in later dated deposits.

The fieldwalking recovered a total of five flint artefacts (Miller and Darch 2003), some of which may be broadly contemporary with a Neolithic leaf-shaped arrowhead found during salvage recording undertaken along the quarry access road (Edwards 1991). The remaining three flints were all similarly isolated finds and could not be dated any more precisely than prehistoric.

The excavation also recovered nine worked flints from later features or unstratified contexts; the artefacts were mainly tools although a single flake and core were also recovered. Those artefacts recovered from specific contexts all derived from Romano-British dated gullies and ditches. These finds were widely dispersed across the investigated area with no discernable or surviving focus of domestic occupation or other activity, although they may potentially be associated with the Late Neolithic/Early Bronze Age activity described below.

Period 3 Bronze Age deposits

A small number of features dated to the Late Neolithic/Early Bronze Age (Beaker) period were recorded along with a pit of probable Middle Bronze Age date and some features of probable Late Bronze Age date. The Beaker features were indicative of small-scale and short-lived episodes of temporary residence and/or other activity which typify this period. The Middle Bronze Age pit though apparently isolated did have a more domestic character and it is possible that further evidence for Middle Bronze Age settlement has been truncated by not only modern ploughing but also by the succession of Late Iron Age and Romano-British enclosures which occupied this area.

A small number of Beaker and Bronze Age features were revealed widely dispersed across the site (Figs 8-9) while some of the undiagnostic and unstratified flint discussed above may also relate to this phase of activity.

The most important of the features, a pit, lay on the eastern edge of the hilltop and towards the north-west corner of the site (1018; Figs 8 and 10). This was 1.10m in diameter with steep sides that gradually sloped to a flat base. It survived to a depth of 0.48m and contained two distinct fills (1016 and 1017) which included an assemblage of 'domestic' Beaker pottery (192 sherds) and flint that had potentially been middened prior to deposition (Anderson-Whymark, this volume). As many as eight separate vessels were represented (Edwards, this volume; P1, P3, P4/5/6, P7, P8, P9, P10 and P11). Similarly dated pottery (22 sherds) was recovered from the single fill of another shallow pit, 0.50m in diameter and 0.06m deep and located in the south-east corner of the excavation area near the base of a slope (Fill 1077, Pit 1078; Figs 8 and 10).

In the southern part of the site, another pit (1245; Figs 9 and 10) measured 0.68m by 0.86m and was 0.34m deep. This contained three distinct fills; of particular interest was the middle fill (1243) that comprised almost entirely ash. From the interface of this ash deposit with the upper fill (1242) a single sherd of Beaker pottery was recovered.

Of somewhat later date, another pit (2107; Figs 8 and 10) was located towards the north extent of the excavated area, at the base of a ridgeline. This was sub-oval in plan with steep sides and a concave base. It survived to a depth of 0.65m and contained four distinct fills. The pit had evidence of burning in-situ and included an assemblage of Bronze Age pottery within its upper fill (2104). To the immediate west, was another small pit (2005), 0.60m in diameter and 0.10m deep that contained five small fragments of Bronze Age pottery within its single fill (2004).

Further south an irregular pit (1013; Figs 8 and 10) contained heat fractured stones and six sherds of Bronze Age pottery, whilst in the south-east of Area 5 immediately off the ridge crest along its western flank, a large pit (2417; Figs 9 and 10) which measured 1.82m in length and 0.46m in depth contained two smaller pit like features [2413] and [2415]. The first of these [2413] contained probable Late Bronze Age pottery fragments within its single fill 2414, as did fill 2426 associated with cut [2417]. The latter also contained several fragments of burnt stone. In the same area of the site, a sub-circular pit had been revealed during the evaluation (Trench 4: Pit 439) that was filled by three deposits (436, 437 and 438) that contained a small assemblage of Middle to Late Bronze Age pottery. The secondary fill (437) also contained a high percentage of fire-cracked stones and charcoal in addition to a conglomerate quartz rubber from a saddle quern that was recovered from the primary fill (438). The rubber, which measured 100 x 300mm, was positioned with the concave face uppermost, 0.08m above the base of the cut (Deeks 2004, fig. 29).

Lastly, a stone packed posthole (1327; Figs 9 and 10) 0.10m in diameter by 0.40m in depth contained only a small flint and this along with several other features may also date to this period (based on morphological grounds). These include several pits packed with burnt stone along the western fringes of the site (within Area 1), although some of the latter are potentially of Iron Age or even Roman date. Several flints of possible Bronze Age date were recovered from unstratified contexts. Residual Bronze Age pottery was also recovered from deposit (1417) that was part of the later Romano-British ditch system associated with Enclosure A (see below).

Period 4 Iron Age deposits

Iron Age activity was evidenced across a wide part of the main excavation area as well as beyond in areas only covered by evaluation. This included two rectilinear and one sub-circular enclosure along with boundary features and a number of pits.

The curvilinear enclosure was located towards the eastern side of the excavated area and appears to be the earliest of the enclosures at the site with the limited dating evidence indicating construction during the Middle Iron Age. The first of the rectilinear enclosures (Enclosure B1) provided the earliest phase of a long-lived enclosure complex and was located on the eastern edge of an elongated ridge overlooking the River Severn. This was constructed during the Late Iron Age and was reworked early in the Roman period and subsequently on at least two further occasions (Enclosures B2, B3 and B4). Adjacent to this, a second Late Iron Age rectilinear enclosure (Enclosure C1) was constructed and this was also remodelled at the start of the Roman period (Enclosure C2).

Iron Age activity does not appear to have been particularly intensive but quantities of stratified material, including a couple of vessels apparently deliberately placed in pits, along with residual finds within Romano-British features suggest at least one domestic focus situated on the north-south ridge extending across the site area.

Sub-circular ditched enclosure (CG 2702)

A single ditch, initially identified in Evaluation Trench 22 proved to form part of a small, slightly elongated, sub-circular enclosure lying to the east side of the site (CG 2702; Fig 11). This lay on a gentle slope just below the crest of the elongated ridge overlooking the river valley below.

The enclosure ditch measured c.1.00m in width and c.0.28m in depth, with sloping concave sides gradually breaking to a 'U-shaped' base. An area of c.365m² was enclosed with evidence of slumping of the fills, most notably along the west and southern extents, suggesting that an internal bank had been present. Two sherds of Middle Iron Age pottery (from fill 2686) provided the sole dating evidence. No entrance was identified but if this had been located on either the north or south sides of the enclosure where it was truncated by later Romano-British ditches (of Enclosure B) then these could have removed all evidence.

Enclosure B

The most complex and long-lived of a series of rectilinear enclosures constructed at the site was Enclosure B. This had four main phases (Enclosures B1 to B4; Fig 12) with some of these phases also including periods of recutting and reworking and each subsequent phase also probably retaining elements of earlier ones.

The earliest phase of these rectilinear enclosures (Enclosure B1; Figs 12 and 13) was constructed sometime during the late 1st century BC or early in the 1st century AD. This was located on some of the highest ground in the area overlooking the river valley to the east. Enclosure B1 was defined by a single ditch encompassing an area of some 3020m². An entrance was identified on the south-west corner of the enclosure. This measured 5.57m wide and had well-defined terminals (eg Fig 13: 2182). The B1 enclosure ditch was deeper and more substantially constructed towards its northern extents (CG 2244) and western extents than along its southern side (CG 1897) reflecting either a lesser degree of truncation or possibly that the ditch had originally been more deeply constructed in this area to ensure adequate drainage. The ditch varied in width and profile, having rather shallow sloping sides and a rounded base in sections excavated across the southern side but having more steeply sloping sides and a well defined base to the north. The enclosure had been truncated along its entire eastern extent by later reworking (Enclosures B2 to B4).

Of particular note during this phase was a large spread of burnt stone, charcoal and plant remains (CG 2244; context 2279) that had been dumped into the uppermost part of one section of the otherwise silted up northern side of the enclosure (Fig 13: 2282). This material clearly represented the discarded remnants of crop chaff and waste which due to the relatively clean nature of the deposit is thought to have been dumped direct from a cart or container as opposed to raked from a nearby source.

Enclosure C1

To the north and west of Enclosure B1, Enclosure C comprised a rectilinear ditched enclosure sited on the top of the ridge within the central part of the excavated area (Fig 14). The enclosure was of relatively simple form and construction. Two phases of activity were defined both at evaluation (Trench 6: contexts 606 and 609) and during the main excavation phase.

The first phase (Enclosure C1; CG 2369) dated to the Late Iron Age and only its western side had survived a later, early Roman, remodelling of the enclosure (Enclosure C2; CG 2351; see below). The latter extended the enclosure westwards, thus leaving the west side of the earlier enclosure intact, but had wholly truncated the northern, eastern and southern sides.

Four slots were excavated across the surviving length of the earlier enclosure boundary ditch (CG 2369; Figs 14 and 15.1 and 2), revealing this to be on average of 1.20m in width and 1.00m in depth, becoming smaller towards the southern terminus where it measured 0.96m in width and 0.22m in depth. The ditch profile was 'U-shaped' with sloping slightly concave sides. It is clear from the stratigraphy that the ditch was filled by a succession of slumps from an upstanding bank on the western edge of the linear, evidence for a bank that ran along a parallel course and was most likely the original spoil material from the ditch construction. Although the ditch appeared to terminate to the south it is not known if this represented an entranceway or reflects severe truncation by the later Romano-British enclosure (Enclosure C2).

Other features

Apart from Enclosure C, ditches, gullies and pits of Iron Age date were also recorded both during the evaluation and in the main stage excavation.

Boundary/enclosure

An east-west ditch (1705) recorded during the evaluation (Fig 4: Trench 17) was 2.18m in width with moderately steep sides sloping to a flat base, and was 0.80m in depth. The ditch contained three fills with the secondary fill (1707) interpreted as reflecting the weathering or slumping of a bank located to adjacent to the ditch and immediately to its north. This ditch lay outside the main area of investigation (just beyond its north-east corner) and does not match any of the plotted cropmarks or align with any exposed features; this remains of undefined extents and function although it is liable to represent a field boundary or further enclosure.

Pits (Figure 18)

During the evaluation a Late Iron Age flat based storage or cooking vessel was recovered from a small pit in Trench 6 (614; Figs 16 and 17), lying within the area subsequently defined by Enclosure C. The vessel contained a large quantity of fire cracked stone and the pit which measured 0.50m in diameter appeared to have excavated specifically for burial of the vessel. Unfortunately the upper parts of the vessel had been damaged by modern plough action and the feature was truncated to within 0.15m from its base; several fragments were recovered from a plough scar extending to the immediate south.

In addition to this distinct pit associated with a single pot and fire cracked stone, four further Iron Age pits of a similar nature were recorded across the site. To the south

within a later Roman enclosure (Enclosure A), vessel fragments from a single pot were found within a moderate sized pit (1805; Fig 16), measuring 0.85m in diameter and filled with a single silt rich fill (1804). This also contained 15 fire cracked stones and frequent charcoal flecks but unfortunately due to later truncation it was not possible to establish whether the cracked stone and charcoal originated within the pot or were simply inclusions within the pit fill.

A moderate sized but shallow pit (1237; Fig 16) was located to the south of the ridge towards the base of a small depression and was truncated to the west by a Romano-British ditch. This pit measured 1.04m in diameter and had shallow sides that sloped gradually to a flat base 0.13m in depth. The single fill (1236) contained distinctive Middle Iron Age 'duck stamp' decorated pottery along with some heat fractured stones.

Further still to the south-west towards the southern limit of the main excavation, pit (1029; Fig 9) measured 0.96m in diameter and 0.40m deep. This contained a high percentage of fire cracked stone and charcoal flecking along with small fragmented pottery remains. To the immediate north-east a second pit [1031] contained a large quantity of fire cracked stone and charcoal, although no pottery was recovered). A final example of a pit characterised by quantities of fire cracked stone dated to the Romano-British period (2237; see below). In none of these instances was there any evidence for scorching or burning in situ of the stone within the pots and it is assumed that they had been heated and shattered elsewhere prior to disposal within these pits.

Gullies

Several gullies were recorded of apparent Iron Age date. The first of these (CG 2284; Fig 8) was located along the southern ridge of the plateau and contained small fragments of Iron Age pot within its upper fill (2752). The gully was orientated north-north-east to south-south-west and had a steep V-shaped base. Two lower silting fills were present (2752, 2753). This truncated an earlier gully (CG 2751) to the north-east, itself truncated to the south by a Romano-British gully (CG 2453).

To the immediate west of Enclosure B1 was a small ditch or gully (CG 2176; Fig 8) that measured 26.5m in length. U-shaped in profile, this feature averaged 0.35m in width with steep sides coming onto a moderately concave base 0.23m deep. Unfortunately no dateable material was recovered from the eleven separate investigative slots into this feature and it is dated on morphological grounds alone being on a similar alignment with Enclosure B1. This may have been part of a wider system of field boundaries associated with the late Iron Age enclosure (B1) which through later truncation of the site has been largely lost.

Period 5 Romano-British activity

Sometime towards the end of the Iron Age or early in the Roman period, Enclosure C1 was extensively reworked on three sides, its west side was either backfilled or allowed to silt up naturally and a new western side established (Enclosure C2). Enclosure B1 was also remodelled at this time and on at least two further occasions during the Roman period, shifting in focus both to the east and north along the crest of the ridge as the enclosure progressively became more complex with successive phases adding and removing features. Over the

course of the second and third centuries, additional enclosures were constructed (Enclosures A, D and E) and the area became a busy centre of activity within the landscape, focussed across the site plateau and down the southern flank sloping towards the Severn Valley below.

The 2nd century appears to have seen the height of activity with Enclosure B at its most elaborate and a new enclosure constructed to its south (Enclosure D). The interface between the 3rd and 4th centuries along with the entire 4th century was a period of substantial change with the focus of activity being diverted south with the construction of Enclosures A and E. The orientation of the complex appears to rotate during this period with the earlier north-east/south-west axis shifting to a more north to south alignment.

A corndrier in Enclosure A, a small timber building and widely dispersed pits and postholes across much of the excavated area provided some evidence of activities associated with the enclosures; however, extensive later ploughing had clearly wholly or partially truncated many features and very little survived to provide finer resolution of the patterning of activities and lesser structures within and beyond the enclosed areas. Domestic pottery and other finds including iron slag and hammerscale were recovered from the enclosure ditches and provided some indications of the functions of the separate enclosures, while the fragmentary survival of field boundaries and droveways along with the form of some of the enclosures indicated that stock management may have formed a significant element of the settlement economy.

At the end of the Romano-British period, spreads of material containing substantial quantities of pottery and burnt stone were dumped across parts of the site and the enclosure ditches were no longer maintained or reworked, indicating that the site had been largely or even wholly abandoned.

The enclosures

Enclosure A (Figures 18-21)

Enclosure A was located along the southern slope of the ridge just below the site plateau. This was investigated in two of the evaluation trenches and subsequently by fourteen separate sections during the main excavation.

This was the largest and most substantially constructed of the enclosures at the site encompassing an area of approximately 5700m². Dating indicates that it was laid out and used during the later 3rd or 4th centuries. The main enclosure ditch defined a distinctively shaped polygonal area with a rather narrow, south facing entrance measuring 3.50m wide (Figs 18 and 21.1). The ditch varied in depth from south to north, with a depth of c.1.25m at the southern entrance and in the south-west corner decreasing to a depth of c.0.70m at its northern extent (Figs 19 and 20).

The ditch had a constant sharp-angled profile, with evidence of re-cuts being noted at the southern entrance (Fig 19: Section 1332 – cut 1332, recut 1394 and Section 1131 – cut 1131, recut 1124). Within the excavated sections the sequence of silting fills was not indicative of a slumped bank (the fills being evenly distributed across the width of the ditch) and this may indicate either that any bank was located some distance from the ditch or perhaps that no bank was present, perhaps suggesting the presence of an associated hedge.

Finds were not numerous in comparison with enclosures to the north, but the assemblage recovered was dominated by Severn Valley wares. In addition, several metal objects were recovered from the main ditch fill including a door latch lifter, two coins of Constantine dating to the 4th century, two brooches, and three iron studs interpreted as the remains of boot hobnails.

The lack of internal features or structures and low levels of domestic artefacts recovered along with the south facing entrance and deeper nature of the southern boundary of Enclosure A may tentatively suggest a relationship with Enclosure E which it faced (see below).

Enclosure B

The Late Iron Age Enclosure B1 was reworked sometime during the 1st or early 2nd century at a short distance to the north and east of its initial footprint (Enclosure B2; Fig 12) and was then subsequently reworked or elaborated on at least two further occasions (Enclosures B3 and B4), with minor shifts in location and size occurring over the relatively long period of use.

The enclosure was originally investigated during the evaluation with two trenches (4 and 5) that indicated a primarily 2nd century period of activity (Deeks 2004), this was then followed by full excavation that revealed the enclosure in its entirety placing seventy-one separate investigative slots to gain a full understanding of relationships, profiles and phasing (Figs 12, 13 and 22). Of note was the large ditch (CG 2265) which defined the west and north-west extents of at least one phase (B2) of the enclosure. This measured an average of 4.70m in width and 1.60m in depth and had been truncated by a later ditch (Enclosure B3: CG 2275) which was more comparable in size to ditches investigated elsewhere within the enclosure. Measuring an average of 0.80m in width and 0.55m in depth it was steep sided, flat based with a 'U-shaped' profile.

The main enclosure ditch at each stage defined a simple rectangular shape that measured an average of c.2090m² with the smallest measuring c.1224m². The first of these, Enclosure B2 (CG 2265 and CG 2600), was constructed in the 1st century AD and comprised a simple rectangular enclosure located slightly to the north and east of Enclosure B1. This enclosed an area roughly 3000m² with section evidence (Fig 22) showing that sections of the ditch had been partially recut or cleaned out on at least one occasion. This appears to have been virtually open-sided to the south or have had an exceptionally broad entrance, although subsequent ditches excavated as part of the reworking involved in establishing Enclosures B3 and B4 have affected this side of the enclosure heavily and may obscure the true width of the entrance. The enclosed area of Enclosure B2 was substantially reworked in the 2nd century, the resultant enclosure (Enclosure B3) overlaying many aspects of the earlier enclosure. This primarily comprised three elements (CG 2259, 2575 and 2823) and was more complex than either B1 or B2, incorporating an internal sub-division in its south-west corner, enclosing some 1225m² within the larger 3000m² enclosure. Through the interface between the 2nd-3rd centuries and throughout the 3rd century further reworking occurred (Enclosure B4) with much of the perimeter of B3 perhaps being retained but additional elements (CG 2261, 2606, 2769, 2798 and 2800) being constructed around the 2nd century (B3) complex reworking the entrance and providing further internal sub-division.

The period of construction, use and elaboration of the enclosure (Phases B3 and B4) during the 2nd to early 3rd centuries AD falls at the height of activity at the site with further enclosures constructed to the north-east (Enclosure C) and to the south (Enclosure D). Abandonment appears to have occurred at the interface between the 3rd and 4th centuries, a period which saw substantial change across the site with the focus of activity being diverted south with the construction of Enclosures A and E and the main orientation of the enclosure complex rotating from the earlier north-east to south-west axis to a more north to south alignment.

Enclosure C2

During the early Roman period, Enclosure C1 was extensively remodelled along its northern, eastern and southern sides while the western side was either backfilled or allowed to silt up naturally and a new western side established (Fig 14). The ditch defining this later enclosure (CG 2351; Figs 14 and 15) was investigated with thirteen slots and had a similar profile throughout. This measured an average of 1.70m in width and 0.70m in depth, becoming shallower and smaller in the east and south to an average of 0.60m in width and 0.35m in depth.

The enclosure was of relatively simple form and construction being roughly square in shape and measuring roughly 35m by 34m. The entrance appears to have been in the south-west corner where the reworked western ditch terminated somewhat further north than the original ditch (2369). This left a gap 3.30m wide to a small interrupted ditch (2326) that measured 7m in length by 2m in width and 0.48m deep. This had steep sides dropping onto a rounded U-shaped base. A further 17m gap exists to the southern ditch (2351) and this created a large entrance that took up the entire south-west corner of the enclosure. Although there was no clear evidence of similar dated features within this wide entrance, a small east-west interrupted ditch (2332) is thought to be broadly contemporary and may indicate that there had been a means of controlling access to the enclosure.

Enclosure D (Figures 18 and 24)

Enclosure D was identified to the south of Enclosure B and was largely overlain by a later enclosure (Enclosure A). This incorporated at least three conjoined rectangular bays each averaging c.320m² in size (Fig 18). The ditches defining these three separate areas were U-shaped in profile and averaged c.0.70m in width with a depth of c.0.70m (CG 1724, 1750, 1775, 1885, 1895, 1896 and 1897; Fig 24). In one instance the ditch showed evidence of a recut (CG 1885, Section 1883/1885; Fig 24).

The small amount of artefactual material recovered from the northern bay (CG 1896 and 1897) during the excavation closely matched that recovered during the evaluation and mainly comprised fine Severn Valley tablewares dated mid 1st-late 2nd centuries AD. This dating along with stratigraphic relationships suggests that this enclosure was probably contemporaneous with the middle two phases of use of Enclosure B (B2 and B3) to the north and that it had gone out of use by the time of construction of Enclosure A which largely overlaid it and Enclosure E to the south.

The other ditches within this enclosure contained no dateable material and have been dated on purely morphological and stratigraphic grounds which also strongly suggest

that this enclosure was contemporary or at least related to a 'drove way' discussed below (CG 1891, 1892 and 1902).

Enclosure E (Figure 25)

Enclosure E was only investigated during the evaluation. This is situated outside the scheduled monument and immediately south of the access road forming the southern limit of the main excavation area. This was not included in the main excavation phase as the area was not viable for mineral extraction. As a result the enclosure is primarily defined through cropmark evidence allied to the limited information from two of the evaluation trenches which intersected it (Trenches 37 and 38).

In Trench 37, a ditch was recorded near to the northern end of the trench and ran north-east to south-west (3703). Excavation revealed a sharp, 'U-shaped' profile containing two fills (3704 and 3705), that produced a small assemblage of Romano-British pottery. A continuation of this feature was observed in Trench 38 where the ditch (3808) though disturbed by a later feature (3810) had a similar profile. Neither excavated section had evidence of a recut perhaps suggesting a single phase of use which artefactual evidence suggests lay in the late 3rd century AD.

Boundary ditches and tracks/droves (Figures 8 and 9)

The investigations also revealed a series of ditches that were not directly related to the individual enclosures but gave suggestion of a wider planned landscape. Due to their location along the crest of a hill and its associated slopes, and within an area of well draining gravels it seems likely that the majority of these ditches primarily served to provide boundaries or links (droves/tracks) between specific areas rather than being constructed for drainage, although the latter would have been a useful secondary function.

The similar orientation of many of these ditches suggests that a planned layout was developed and maintained and where possible these ditches have been dated and phased through artefactual remains recovered from individual fills or stratigraphic relationships, however, a number of them have been dated on the basis of their alignment and potential association with phases of enclosure (Enclosures A, B, C, D and E).

Drove/track (CG 1509 and 1589)

Towards the southern end of the site were two parallel ditches (CG1509 and 1589) forming an apparent drove or track running in a north to south direction. The north end appears to have been blocked at some stage but this may represent a later reworking as it seems most likely on the basis of dating (3rd century AD), alignment and relationship to Enclosure A (which these pre-dated), that these ditches were associated with the later phase of occupation of Enclosure B (B3 and B4). This suggestion is further supported by the fact that the entrance of Enclosure B appears to have been located on its southern side, thus facing the drove/track. The presence of earlier Roman pottery in the ditch (CG 1589) also indicates that it may have had an earlier phase associated with Enclosure B2. To the south, the eastern arm of the drove/track turns east and may be opening out into a field system, whilst to the west it is possible that the north side of a later drove (CG 1992) originated as part of this earlier system – this follows much the same alignment as CG 1589 but also partially blocks this earlier drove.

Drove/track (CG 1891, 1892 and 1902)

Between Enclosures A and E two parallel ditches orientated north-west to south-east ran across the south-west corner of the excavation area roughly following the course of the valley base with the southernmost ditch (CG 1902) turning through 90° to run south-west.

The more southerly of the ditches (CG 1891) averaged 1.25m in width and 0.30m deep with shallow stepped sides breaking to a gently rounded base. This terminated to the south-east with a rounded end creating a 1.50m wide entranceway between it and the terminus of a further ditch (CG 1902). The construction of the latter was different, the ditch being 0.85m wide and 0.35m deep with steep sides and a concave base. The third of the ditches (CG 1892) was located on a parallel course 9m to the north-east and had a U-shaped in profile, an average width of 2.00m and a depth of 0.48m.

These ditches are interpreted as representing a droveway or track and contained little dateable evidence; only residual flint and Beaker pottery along with locally sourced early Romano-British pottery being recovered (CG 1902: fill 1121). All of these are thought to have been redeposited from earlier phases of activity since the alignment of the drove or track suggests an association with middle and later phases of Roman enclosure (Enclosures A and E).

Boundary Ditch (CG 1890)

An east to west orientated ditch (CG 1890) truncated by a later drove/track (CG 1891, etc) was U-shaped in profile, averaged 0.60m in width with steep sides breaking to a moderately concave base. It was 0.20m in depth and pottery recovered was indicative of a 1st-2nd century AD date. Taken together with its orientation and morphology this small ditch is similar to that of another ditch (CG 2163, see below) and both are interpreted as remains of a field system associated with Enclosures B and C.

Boundary Ditch (CG 2163)

To the west of Enclosure C on the western edge of the plateau was a ditch (CG 2163) that was orientated east to west, measured 25m in length and averaged 0.80m in width, the profile comprised steep sloping sides onto a moderately concaved base. It survived to an average depth of c.0.35m and a maximum depth of c.0.50m and was infilled by fine silts and sands which appear to result from weathering rather than deliberate backfilling.

Boundary Ditch/Gully (CG 2392)

To the immediate east of, and truncated by the eastern boundary of Enclosure C2, a small ditch or gully (CG 2392) followed the same east-west alignment as the enclosure. This shallow feature 0.16m in depth was U-shaped in profile with an average width of 0.45m. A 20m length of this survived ending in a rounded terminus located north-west of one of the ditches (2669) defining Enclosure B.

Boundary Ditch (CG 1509)

To the east of, and truncated by, the eastern entranceway ditch for Enclosure A was a north to south aligned ditch of which a length in excess of 50m survived. This ditch was U-shaped in profile, 0.20m deep on average and 0.80m wide with steep sides blending

into a steeply concave base. This is interpreted as part of a field system and was probably contemporary with the later stages of Enclosure B (B3 or B4).

Boundary ditch/gully (CG 2508)

To the immediate east of Enclosure B, a ditch (2508) running east to west had steep sides and a concave base. The ditch measured c.0.70m in width and survived to a depth of c.0.47m. It was infilled by a combination of silts and sands with no certain evidence of either ditch cleaning or backfilling present suggesting that these derived from weathering. Artefactual material mainly comprised Severn Valley Ware dated to the mid 2nd to 3rd centuries AD. This ditch was stratigraphically truncated by the north-eastern corner of external boundary of Enclosure B3 and may have represented an earlier phase of the enclosure system or associated with earlier phases of the attached field systems.

Boundary Ditch (CG 1096 and 1472)

To the immediate north of the drove/track (CG 1891, etc) and truncated by the south-west corner of Enclosure A was a north to south orientated ditch (CG 1096 and 1472). This was U-shaped in profile with moderately sloping sides coming down onto a concave base. It averaged 1.10m in width and 0.30m in depth and had a single fill which produced some pottery but unfortunately nothing to enable a more refined date than broadly Roman.

Boundary Ditch (CG 1538)

To the west of Enclosure A and running parallel to its western side was a 70m length of north to south aligned ditch. This had been recut and contained only limited dating evidence indicative of a 3rd to 4th century date. This is believed to be part of a field system associated with the use of Enclosures A and E.

Boundary Ditch/Gully (CG 2794)

To the immediate north of Enclosure B, a small ditch or gully (CG 2794) ran for 23m in an east-west direction. This shallow (0.09m) feature averaged 0.40m in width and had steep sides that came down onto a concave base. No dateable material was recovered from the four investigative slots placed along its length but this is believed on morphological grounds and orientation to be late Romano-British in date and associated with the phase of site activity represented by Enclosures A and E. Both termini were rounded in nature and it is not known what function this small gully may have performed, although its location immediately off the crest of the slope along with its shallow nature suggests that it may have been part of a larger field-system that has been largely truncated or eroded by ploughing.

Boundary Ditch/Gully (CG 2481)

On the eastern margin of the excavated area, a gully (CG 2481) was orientated roughly north to south. No dateable material was recovered from its 31m length and the provisional dating is based purely on morphological and alignment. This was very similar to CG 2794 and is believed to have been part of a larger field-system complex that has been largely truncated in antiquity.

Boundary Ditches (CG 2125 and 2235)

In the north-west of the investigation area, two ditches towards the base of the hill (CG 2125 and 2235) were orientated at roughly right angles to each other on south-west to north-east and north-west to south-east axes respectively. Both had a similar V-shaped profile averaging 0.40m in width with steep sides coming down onto a rounded base. They averaged 0.30m in depth.

One of the ditches (CG 2235) was dated from late Romano-British pottery of 3rd-4th century date (from fill 2131), whilst the other (CG 2125) was dated on the grounds of its alignment at 90° to the other.

Boundary Ditches (CG 2828 and 2830)

Two further ditches (CG 2828 and 2830) were revealed in the north-east corner of the excavation area just below the ridgeline. The first of these (CG 2828) averaged c.0.75m wide and c.0.40m deep with steep sides and a concave base, the other (CG 2830) intersected the first running south from it. This measured c.20m in length and averaged c.0.60m wide and c.0.45m deep with steep sides and a concave base. Both ditches were characterised by fills that appear to have resulted from weathering with no evidence of either dumping or cleaning (re-cutting), suggesting that the ditches were in use for only a minimal period. No datable material was recovered from either of these ditches and a Roman date is proposed solely on morphological grounds.

Other features

In addition to the enclosures and ditch systems, discrete features were recorded throughout the excavation area, several of which contained Late Iron Age and Romano-British material and some of which could be associated with the enclosures with varying degrees of certainty. Numerous other features remain undated but on the basis of fill characteristics and probability are liable to be associated with this main (Roman) period of site activity.

Features associated with Enclosure E

Enclosure E, although only investigated during the evaluation, produced some of the strongest evidence for internal activity within any of the enclosures investigated, since good dating evidence was present both within the enclosure ditch and in other features present in Evaluation Trench 38 which traversed the area of the enclosure. Here, a broad but shallow Romano-British feature (3812) was identified in a location close to the north-west corner of the enclosure. This was aligned broadly north to south and measured over 4.25m wide but only 0.75m deep. This broad ditch or holloway had two distinct fills and had been truncated on its edge eastern edge by a small sub-oval pit (3813; Fig 25). The fill of the pit (3803) contained a notably high percentage of Romano-British pottery (a total of 849 sherds; Fig 26), clearly indicative of intentional rubbish dumping during the late 3rd century.

To the west end of Trench 38, thus beyond the western limit of the enclosure, another ditch was recorded running parallel to the enclosure's western boundary (3820). In profile this was almost identical to that of the enclosure ditch and cropmark evidence suggests

that this defined one side of a drove or track running up the west side of Enclosure E and extending to its south (Fig 25).

Corndrier/oven (CG 1634; Figure 27)

Situated in the southwest of Enclosure A were the poorly preserved remains of an oven or corndrier. This survived within an irregular depression measuring some 2.59m by 3.05m and 0.13m deep at its maximum. Structural remains within this comprised three flat sandstone blocks placed end to end to create the floor of the main oven/drier chamber and flue which was orientated east to west and provided an area 0.53m wide by 0.75m long. To the north and south sides this was bounded by further fragmentary sandstone blocks defining the remains of the superstructure of the main chamber and flue. Many of the sandstone blocks were partially heat shattered and exhibited signs of scorching, especially on the surface of the slabs forming the floor of the main oven and flue.

At the west end of the flue a shallow, sub-circular depression filled with a clay and silt rich layer provided the surviving elements of the firing and stoking area and contained evidence of repeated burning episodes. A further depression to the south of the main oven chamber may represent the remnants of an earlier firing and stoking area and indicate that the structure has been rebuilt and realigned at some stage. The only find recorded from this feature was a piece of lead that appeared to have been a pot repair, although this item does not appear to have had a direct relationship with the use of this feature it is an interesting object in its own right being one of only two lead objects found during the archaeological investigations.

Two fragments of quern stone were recovered 23m to the south of the corn drier in the south-west corner of the ditch defining Enclosure A. A third fragment from a very heavily worn quernstone was recovered 12m to the north-west and this also derived from the ditch defining Enclosure A. Whilst it is not possible to establish whether use of these querns was directly related to use of the corndrier or oven, few features or finds were present within Enclosure A and an association seems likely.

Timber building (CG 1896)

To the south-east of Enclosure A, a concentration of eighteen pits and postholes defined the footprint of what is tentatively interpreted a small rectangular timber framed structure (Fig 28). This building measured 5.85m in width by 9.30m in length, typical postholes (eg 1460) measuring 0.70m in diameter with vertical sides onto a flat base 0.11m deep. Two pits (1442 and 1489) located at opposing ends of the putative structure contained sandstone pads that suggested the presence of a central roof beam supported by large posts underpinned by these stone pads. Severn Valley Ware and Malvernian Ware were recovered from several of the pits suggest a 2nd-3rd century date. Of particular interest within the internal building area was the presence of ash and charcoal in two pit fills (1480 and 1483) in the north-east corner of the building. These fills, both of which were 0.15m thick, are thought to be the rakings from one or more fires but unfortunately no direct evidence for the presence of an internal fire/hearth area had survived.

Pit (CG 2761)

Small sub-circular pit (2761; Fig 9) containing two fills, a primary fill (2760) and a secondary fill (2758) which included pottery of 2nd century date indicating that the pit was associated with activity within either Enclosure B2 or B3 within which it lay. Both fills included charred plant remains.

Isolated Pit (CG 1035)

A sub-oval pit (1035; Fig 9) located at the southern extent of the excavation area measured 1.20m by 0.90m in shape with gradual sides that descended onto a flat base 0.25m in depth. This contained a single fill (1034) that included a residual late Iron Age rim sherd and some Severn Valley Ware along with slag and hammerscale, the latter being strongly indicative of ironworking (?secondary smithing) in the immediate vicinity.

Late Roman dumping/abandonment deposits (CG 2831)

At the end of the Romano-British period it appears that a major change occurred within the area of investigation. Large spreads of burnt material (contexts 2527, 2540, 2571, 2601, 2604, 2625 and 2660) containing substantial quantities of pottery and burnt stone were dumped across the area of Enclosure B. Unfortunately due to later truncation by modern ploughing these deposits only survived in the hollows formed within the subsided remnants of the ditches defining Enclosure B (B2, B3 and B4). Mainly noted along the crest of the hill in the ditches defining the enclosure's northern side, these spreads contained pottery that included a high proportion of fine tablewares as opposed to the more general locally sourced utilitarian wares that typified the majority of the site.

Period 6 Post-Roman/Early medieval activity

No evidence of post-Roman/early medieval activity was identified during the fieldwalking or evaluation phases of the investigation; however, three contexts investigated in the southern half of the site during the main excavation provided rare evidence for activity of this period. This comprised a sunken featured building and a recut of a Roman ditch terminus, both of which were associated with pottery and other finds.

Deposits

The majority of the Anglo-Saxon dated material derived from a large, roughly square feature (1691) measuring 25m² and surviving to a depth of 0.42m (Figs 29-31). This contained a distinct primary occupation deposit (1759), 0.10m thick and characterised by charcoal and burnt material. It included sherds from at least four different vessels and two interesting metal items, one a knife and the other a large iron ring (Griffin this volume). This was overlain by 0.12m of sand rich silts (1690) that included occasional fire cracked stones and charcoal flecks that became more frequent at the interface with the underlying deposit. This feature is interpreted on morphological grounds to be a 'typical' type 'A' (in the West Stow typology: West 1985) Sunken Featured Building. This type of building was constructed with a rectangular sunken area with posts at either end supporting a central ridge pole. Both domestic and workshop functions have been identified for such buildings with the quantity of pottery recovered in this instance suggesting a domestic function.

Unfortunately surviving evidence does not clearly demonstrate whether there was uninterrupted occupation of the site throughout the Roman period and through to the 8/9th centuries AD when the Sunken Featured Building was constructed; however, it appears most likely that there was a hiatus in occupation between abandonment of the Roman settlement in the 4th century and an 8/9th century reoccupation of the still visible area of the earlier Roman enclosure (Enclosure A). This is based upon the observation of an apparent break or hiatus in the process of silting and infilling of the enclosure ditch through weathering. Although the duration of this period of stabilisation remains undetermined, during this time much of the enclosure outline would have remained visible as a shallow depression in the landscape becoming more evident along the southern boundary where the depression reached 0.40m at its greatest depth. This depression was further enhanced by a recut (1452; Fig 29) section of ditch near to the eastern terminus of the entrance to Enclosure A that would have served to re-iterate and strengthen the visibility of the enclosure and its entrance in the landscape. The fill of this recut (1451) was dated through the presence of a single small sherd of Anglo-Saxon pottery mixed with residual 4th century material.

Radiocarbon dating (SUERC and Nicholas Daffern)

Two samples from the burnt deposit (context 1759; Fig 30) in the base of the Sunken Featured Building were submitted to SUERC (Scottish Universities Environmental Research Centre) for Accelerator Mass Spectrometry (AMS) radiocarbon dating (Table 1). The first of these was a charred *Triticum* sp (wheat) grain (SUERC-38163/GU26173) which dated Cal AD 665 to 828 (90.8%) and Cal AD 838 to 866 (4.6%) and the second was a carbonised/burnt residue from a sherd of chaff-tempered ware (fabric 99) (SUERC-38164/GU26174) which dated Cal AD 655 to 779 (95.4%).

No sources of contamination or non-contemporaneous carbon were evident during the fieldwork or during the subsequent sub-sampling. All calibrated dates are identifiable by the prefix 'Cal'. Where calibrated date ranges are cited in the text, these are for 95% confidence.

Period 7 Medieval deposits

The fieldwalking provided slight evidence of medieval agricultural practice, several pottery sherds of this date recovered from the modern topsoil probably reflecting use of domestic refuse for manuring arable land during this period.

Neither the evaluation or excavation phases of the investigation revealed any medieval features in the scheduled monument. This may reflect that the 1839 Tithe map suggests that the area formed part of a medieval park and thus would have been subject to limited cultivation or establishment of boundary and drainage ditches or other features.

Period 8 Post-medieval/modern deposits

Relatively large quantities of tile, pot and CBM of post-medieval and modern date recovered from across the site probably reflect increasing use of domestic and other debris being used for manuring and improvement of arable land during the last 500 years or so. The fieldwalking recovered 2.40kg of flat roof tile in Field 1 alone. Thirty-nine sherds of pottery (weighing 450g) were also recovered and although abrasion resulted in few being readily identifiable to fabric and type, those identified included Westerwald stoneware, Nottingham stoneware, porcelain and post-medieval buff wares.

The entire area had seen the result of progressively deeper and more intrusive intensive ploughing techniques which truncated much of the earlier activity (see below). This is thought to have resulted in destruction of the numerous lesser discrete features that are liable to have been present within at least some of the enclosures. This is especially liable to have affected the areas of Enclosures B and C that were located on the crest of the slope and the top of the plateau and are therefore likely to have been more susceptible to damage through a combination of ploughing and natural (downslope) erosion.

Lastly, a modern agricultural water pipe was also noted running north/south through the site before turning north-east within the central area of the site and truncated a number of earlier features.

Period 9 Undated deposits

Numerous features remain undated due to a lack of finds (Figures 8-9) and these for a large part are pits and postholes liable to be associated with either Iron Age or Roman phases of occupation.

Earlier prehistoric artefacts

Earlier prehistoric pottery

Emily Edwards

This report covers pottery from both the excavation (WSM39877) and the evaluation (WSM32983). A total of 252 (897g) pottery sherds were recovered from 15 contexts (Table 2). The majority of this assemblage comprised 192 (651g) Beaker sherds, representing some 7 or 8 different vessels, which were recovered from two fills within a pit [1018]. The remainder of the assemblage includes Bronze Age, potentially Late Bronze Age, and Iron Age sherds.

Table 2: The early prehistoric pottery assemblage

(Guide to codes: LN/EBA, Late Neolithic Early Bronze Age; BA, Bronze Age; PREH, prehistoric; LBA, Late Bronze Age; IA, Iron Age)

Cut	Fill	Date	Count	Weight
Excavation (WSM 39877)				
1018	1016	LN/EBA	141	593
1018	1017	LN/EBA	51	58
1418	1417	BA	2	26
1245	1242	LN/EBA	1	5
1013	1012	BA	6	7
1122	1121	PREH	2	12
1078	1077	LN/EBA	22	32
2417	2426	LBA?	7	56
1492	1490	IA?	1	6
2413	2414	LBA?	4	12
2107	2104	BA	1	2
2107	2004	BA	3	5
Evaluation (WSM32983)				
	146	LBA	1	6
	436	BA/IA	8	45
	1708	BA/IA	1	22
	2213	BA/IA	1	10
	Grand Total		252	897

Methodology

The assemblage was quantified by weight in grams and by sherd number. Refitting breaks were not excluded from the sherd count; and numbers of refitting sherds were recorded separately where it was difficult to differentiate between old and fresh breaks.

The pottery is characterised by fabric, form, surface treatment and colour. Only the reasonably sized diagnostic sherds are listed in the catalogue. The sherds were examined using a x20 hand lens and were divided into fabrics according to principal inclusions. Standard alphanumeric codes have been used to denote inclusion types (PCRG 1997), the numbers merely being used to differentiate between fabric types: A: Sand, V: Voids, NT: No opening material present.

Condition

The general condition of the assemblage was typical of pottery that has been middened before deposition rather than having been deposited shortly after use. There were refits within the sherds representing a comb-decorated Beaker, but all the sherds were worn and abraded. Only a small proportion of each vessel was represented; one rim sherd was large enough to allow an approximate diameter measurement (P4, 190-200 mm, 10% of diameter represented).

Manufacture

Surface treatments largely comprise smoothing and carefully applied decoration. Firing is difficult to comment on when vessels are represented by such small percentages, but few oxidised surfaces were observed.

Fabric

Source

Holt lies to the north, on a ridge above the River Severn and sits on the third gravel terrace, which overlies Mercian Mudstone (British Geological Survey 1990), formerly known as Keuper Marl. The gravels contain pebbles from a wide variety of rocks and it also contains gravel flint.

As there is little observable difference, other than size of grog inclusions, between any of the grog fabrics, it would follow that these originate from the same clay source. As Holt is situated on the third gravel terrace, all the materials are immediately available.

Fabric Descriptions

Sparsely distributed grog inclusions were identified in three Beaker fabrics, whilst a smaller number of sherds were manufactured from other fabrics (Table 3).

Table 3: Breakdown and description of early prehistoric pottery fabrics

Fabric	Period	Description
G1	Beaker	Sparse, fine grog
G2	Beaker	Sparse fine to coarse grog
G3	Beaker	Common fine grog
NT	Beaker	No visible opening material, naturally occurring or otherwise
Qt1	Late Bronze Age	Sparse fine to coarse quartzite
Qt2	Late Bronze Age	Common fine to coarse quartzite
Qt3	Late Bronze Age	Common coarse quartzite (WCC fabric 5.8)
Q2	Late Bronze Age	Both rounded and angular quartz pebbles and fragments, 1mm.
A1	–	2–5 % fine sand
A2	Prehistoric or Bronze Age	Common quartz sand
R1	Bronze Age or Iron Age	WCC fabric 3
V1	Possibly Beaker	2–5 % linear voids.

The comb decorated sherds were generally manufactured from the G3 grog fabric, whilst fingernail and cordon decorated sherds were manufactured from either G2 or NT, thus echoing observations made by RJ Harrison, of the Astley, Arley Kings assemblage (Dinn and Hemingway 1992).

The later Bronze Age sherds were manufactured from coarse quartzite fabrics, consistent with those in the Worcestershire County Council fabric series. One small fingernail decorated rim (from context 436) was manufactured from a fine sandy fabric and a plain shouldered sherd (Fig 32.3) from the fill (1016) of Beaker pit [1018] comprised a vesicular fabric containing no sand or other material.

Form

Assigning form types to complete Beakers within any of the current Beaker typologies is a hotly debated topic (Clarke 1970; Case 1977; Case 1993; Lanting and van der Waals 1972, 38-39; Needham 2005) and in the case of an assemblage such as this one, where fragmentation is high and where no substantial vessel profiles are present, it is not possible.

The angular shoulder of the plain vessel from the Beaker pit [1018] is of a form consistent with plain, angular Beakers (Clarke 1970). A small, closed, simple rim (Fig 32.1: P12, context 436) from another pit [439] may be Late Bronze Age in date whilst the grog tempered neck and shoulder sherd (also from Beaker pit 1018) may possibly represent a Late Bronze Age shouldered bowl (context 1016; Fig 32.3).

Decoration

Comb decoration was the most common form of decoration present. This had not been uniformly applied using one comb type. Some of the sherds had been decorated using a rectangular toothed comb and others round toothed, which could place these vessels within the earlier phase of Beaker chronology (see below). Patterns were generally horizontally aligned, consisting of bands of rows and nested chevrons. A motif occurring on more than one vessel comprised short, fat impressions arranged in staggered rows. Some of these appeared to resemble whipped cord impressions and others were clearly made using comb and/or incisions or impressions. Two vessels were decorated with smoothed cordons (Fig 32.2 and 32.7) and impressed fingernail designs (Fig 32.7 and 32.9) whilst one rim sherd bore two bosses, flattened and pinched on four sides (P1). One vessel was slashed with a sharp implement (Fig 32.8); the slashes appear to contain comb teeth impressions but they are not clear. This vessel is suggestive of one of the two Beakers from the double burial on Bredon Hill (Thomas 1967). The decoration on body sherds from context 1016 (Fig 32.5 and 32.6; Beaker pit 1018) and a small rim sherd from another small pit (1242; Fig 32.2) are distinctive and similar enough to suggest a common source despite the distance separating these features (254 meters); the firing and fabric also would support a suggestion that they could be from the same vessel.

The comb-decorated vessels would fit within Needham's Mid Carinated and Low Carinated styles, which effectively place these within the earlier phase of the Beaker chronology (Low Carinated 2500-2100 and Mid Carinated 2300-1950). The fingernail decorated vessels fit within later phases. The thicker walled rim sherd decorated with finger shaped bosses

(Fig 32.1) has a parallel within the Hockwold 'Oaks' assemblage (Gibson 1982, fig. P63.69) whilst another (Fig 32.7) had a parallel within the nearby Holt excavations (Hunt *et al* 1986; site B; fig 13.4).

One decorated sherd from a pit recorded during the evaluation (WSM32983, context 436; Fig 32.12) dates from the later prehistoric – a rim sherd from a plain vessel with diagonal incised lines on the rim and a single horizontal row of fingernail decoration just below. This rim sherd is likely to be of Late Bronze Age date.

Discussion

Early Bronze Age Beaker material has been recovered from elsewhere in the area as at the nearby site at Holt (Hunt *et al* 1986), from Bredon Hill (Thomas 1967), Kempsey (Hawkes 1935), Aston Mill Quarry and Huntsman's Quarry, Kemerton (Dinn and Evans 1990; Woodward and Jackson 2015), Hill and Moor (Clarke 1970; Else 1943), Pershore (Clarke 1970) and from Longmore Hill Farm, Astley (Dinn and Hemingway 1992). Comb decoration is most dominant amongst these vessels, although impressions of varying types occur within the comb patterns. Those from Bredon Hill, Pershore, and Hill and Moor represent largely complete examples of tall, curvilinear styles (Clarke 1970, N3 and E) but, generally speaking, fragmentation amongst the assemblages is too high, thus restricting a full discussion on Beaker forms within Worcestershire. This fragmentation is a characteristic of the non-funerary deposits, from which groups from Huntsman's Quarry, Longmore Hill Farm, and Holt have derived, and are indicative of a certain amount of middening prior to deposition.

The Beaker material is worn, fragmented, and a mixture of typologically early and late vessel types; this is typical of such 'domestic' pit groups. The potentially middened nature of the material may be indicative of long-term settlement and/or usage of the land and, together with the fragments of evidence for Late Bronze Age usage of the same spaces, shows persistence of place throughout the Bronze Age.

Catalogue

- P1 Fill (1016), Pit [1018]. Squared and thickened Beaker rim sherd decorated with incised horizontal lines and a plasticated boss.
- P2 Fill (1242), Pit [1245]. Thin walled, simple pointed Beaker rim sherd with horizontal bands of impressed comb decoration over a similarly executed lattice pattern. Two horizontal bands of incised decoration were present internally just below the rim.
- P3 Fill (1016), [Pit 1018]. Shoulder and neck sherd comprising of a deep cavetto zone and high, slight shoulder. Possibly part of a later prehistoric bowl.
- P4 Fill (1017), [Pit 1018]. Simple rounded, everted rim sherd, with closely arranged horizontal bands of impressed comb decoration.
- P5/6 Fill (1016), Pit [1018]. One shoulder and one body sherd from a fine walled Beaker vessel, decorated with chevrons, bands and short lines of impressed comb.
- P7 Fill (1016), Pit [1018]. Flat topped, everted Beaker sherd, from a 'domestic' Beaker. Decorated with a moulded, horizontal cordon and impressed finger nail.

- P8 Fill (1017), Pit [1018]. Beaker body sherd decorated with widely set, horizontal lines incised with a sharp tool.
- P9 Fill (1017), Pit [1018]. Simple rounded, everted Beaker rim sherd decorated with a row of fingernail impressions.
- P10/11 Fill (1017), Pit [1018]. Two small Beaker sherds, decorated with closely applied rows of comb impressions arranged in lattice, nested chevron and horizontal bands.
- P12 Fill 436; [Pit 439]. Small, pointed rim and upper body from a closed cup or small bowl decorated with a row of impressed finger nail impressions and diagonal incised linear decoration on the rim.

The struck flint and burnt unworked flint

Hugo Anderson-Whymark

Introduction

A small assemblage of struck flint and a single piece of burnt unworked flint was recovered from the evaluation and excavation at Church Farm West, Ball Mill Quarry (Table 4).

The struck flint assemblage comprises 18 larger artefacts and c.266 chips (flakes with a maximum dimension <10 mm). Two of the struck flints probably date from the Mesolithic, but the rest of the assemblage dates from the late Neolithic/early Bronze Age (Beaker) period.

Raw material

Two flakes of mid grey-brown flint (contexts 1571 and 2771) exhibited a 7 mm thick, unabraded, buff coloured cortex. This material is likely to have been obtained from a chalk region over 100 km to the south east, although it is not possible to identify a specific source. The majority of the flint was, however, translucent mid brown with, where present, a heavily abraded, and in some cases almost polished, cortical surface. This material is likely to have been obtained from a secondary source, such as river gravels, located some distance from the chalk; no local sources for this flint have been identified.

The assemblage

The potential Mesolithic component comprises a parallel-sided bladelet from site cleaning (2100) and an unstratified fragment of a blade-like flake that exhibits blade scars on its dorsal surface. The regular, narrow proportions of these flints and presence of dorsal-blade scars, clearly distinguishes these artefacts from the rest of the assemblage and indicates that they are the product of a blade-orientated industry. Dating individual flakes is notoriously difficult, but the morphological and technological attributes are most characteristic of Mesolithic flint working traditions.

The remaining flints were recovered from three earlier prehistoric pits (1018, 1245 and 1327), Iron Age and Roman features and site cleaning contexts. One of these (Pit 1327) yielded a single chip (from fill 1326), while another (Pit 1245) contained c.250 pieces of micro-debitage. The latter clearly results from an episode of flint knapping and indicates that the small debitage

was probably collected and directly deposited into the pit. However, in the absence of larger artefacts or distinctive chips, it is not possible to suggest what was being manufactured. The third pit (1018) yielded a more substantial assemblage comprising a flake, a blade and 12 chips from its secondary fill (1016) and 5 flakes, 5 retouch flake tools and a chip from the primary fill (1017). The tools comprise a horseshoe-shaped end-and-side scraper (27 mm long by 24 mm wide and 6 mm thick; Fig 33.1), an oval disc scraper (34 mm long by 29 mm wide and 9.5 mm thick; Fig 33.2), two edge-retouched flakes and a piercer. The scrapers both exhibited regular scale pressure-flaking, which is typical of early Bronze Age flake tools. The tools all exhibit evidence of use, as do many of the flakes in this feature. Six of the flints were burnt (one chip, three flakes and both scrapers) and five flints were broken (a bladelet, three flakes and an edge-retouched flake).

The residual flint assemblage was predominately composed of edge-damaged flakes, but five retouched artefacts were recovered. These comprise a fine sub-circular thumbnail scraper that exhibits scale pressure-flaking (23.5 mm long by 20.5 mm wide and 7 mm thick; cleaning 1006), a small knife that exhibits unifacial invasive pressure-flaking on its dorsal surface (Evaluation Trench 4: topsoil 451), and two flakes with slight edge-retouch (cleaning 1006 and Roman ditch fill 2771). The scraper and knife date from the late Neolithic/early Bronze Age.

Table 4: The flint

Category Type	Excavation							Evaluation					Grand Total
	Pit 1018		Pit 1245	Pit 1327	IA/ROM features	Cleaning	U/S	TR. 4	TR. 22			TR. 38	
	Fill 1016	Fill 1017	Fill 1242	Fill 1326				Topsoil 451	RB Ditch 2214, fill 2212	RB Ditch 2214, fill 2218	U/S	RB Pit 3813 fill 3803	
Flake	1	5			3	1				1	1		12
Blade					1				1				2
Bladelet	1					1							2
Blade-like flake					1		1						2
Chip				1	2								3
Sieved chips 10-4 mm			c.250										c.250
Sieved chips 4-2 mm	12	1											13
End scraper												1	1
End and side scraper		1											1
Disc scraper		1											1
Thumbnail scraper						1							1
Piercer		1											1
Other knife								1					1
Retouched flake		2			1	1							4
Burnt unworked					1								1
Grand Total	14	11	c.250	1	9	4	1	1	1	1	1	1	295

Discussion

The presence of two Mesolithic flints indicates an early hunter-gather presence in the landscape, but provides no evidence of the range of activities undertaken. The late Neolithic/early Bronze Age flint work is more significant as it indicates activity in the landscape around the contemporary Holt barrow cemetery (Hunt *et al* 1986). The precise nature of this activity is unclear but the pits may reflect short-term occupation or settlement (Anderson-Whymark and Thomas 2011). The broad range of well used flint artefacts may support this interpretation, but considering the limited size of the assemblage it would be unwise to suggest a focus on any particular activity.

Iron Age, Romano-British, medieval, post-medieval and modern artefacts

Laura Griffin

The various stages of investigation and excavation at Church Farm West, Ball Mill Quarry produced a substantial quantity of Iron Age and later pottery. Other finds were somewhat limited in quantity and range but included other ceramic objects (brick/tile, fired clay), glass, metal objects, iron slag and stone (Tables 5 and 6). The assemblage was dominated by Roman pottery but smaller quantities of earlier prehistoric (see above), Iron Age and Anglo-Saxon pottery were also present. Pottery of later periods was found in only very small quantity.

All hand retrieved finds were examined and identified, quantified and dated to period. Where possible, a terminus post quem was produced for each stratified context, which was used for determining the broad date of structural phases. Records from both stages of fieldwork were entered into a single Microsoft Access 2000 database. Artefacts from environmental samples were examined, but none were worthy of comment and are not included in the overall quantification.

Pottery was examined under x20 magnification and recorded by fabric type and form. All fabrics were referenced to the fabric reference series maintained by Worcestershire Historic Environment and Archaeological Service (Hurst and Rees 1992; <http://www.worcestershireceramics.org/>). Sherds that could not be identified or were too small to be identified accurately by fabric were grouped within miscellaneous prehistoric or Roman fabric categories 97 or 98. The pottery was classified into form types on the basis of shape, size, rim type and decoration. Where possible forms were categorised and dated using the appropriate published typology for the specific fabric type.

Table 5: Quantification of the Iron Age and later artefactual assemblage

Material	Total	Weight (g)
Iron Age pottery	237	3649
Roman pottery	4668	83600
Early medieval pottery	64	855
Medieval and later pottery	48	230
Roman tile	26	479
Post-Roman tile	50	598
Brick	28	216
Oven material	6	186
Fired clay	280	2403
Copper alloy	7	18
Iron	124	590
Lead	2	107
Slag	37	1780
Glass	26	72
Pot-boilers	129	13760
Quern stones	3	1013
Building stone	10	9402

The preservation of sherds was varied with some display very high levels of abrasion and softening whilst others were virtually unaffected. This was most noticeable amongst the fine wares with some having no slip surviving, whilst others were still glossy in appearance. However, there does not appear to be any obvious correlation between level of preservation and feature type or date. The assemblage also contained a high enough number of diagnostic sherds to enable a measure of 'Estimated Vessel Equivalent' (EVE) using rim measurement.

Where possible, the results from analysis of this assemblage have been compared to assemblages from other local and regional sites in an attempt to identify any common themes.

A selection of pottery forms is illustrated in Figures 34-39 with Figures 40 and 41 presenting other selected artefacts.

Table 6: Quantification of the Iron Age, Roman, medieval and later pottery (by fabric number)

Fabric	Fabric name	Total	Weight (g)
1	Sandy briquetage (BD 120)	11	81
2	Organic briquetage (BD 121)	1	12
3	Malvernian ware	781	16171
3.1	Slab-built Malvernian ware	13	1069
5.1	Sand	60	310
5.2	Sandstone	23	113
5.4	Quartzite	16	73
6	Dolerite tempered ware	1	7
9	Mudstone tempered ware; Group D)	82	2831
12	Severn Valley ware	3910	61499
12.1	Reduced Severn Valley ware	42	684
12.2	Oxidised organically tempered Severn Valley ware	322	8659
12.3	Reduced organically tempered Severn Valley ware	10	271
12.5	Severn Valley ware variant	39	1057
12.6	Severn Valley ware variant	31	792
12.9	Severn Valley ware variant	1	30
13	Sandy oxidized ware	9	142
14	Fine sandy grey ware	8	78
15	Coarse sandy grey ware	12	133
16	Grog tempered ware (BD32/33)	3	73
17	Mudstone tempered ware (Soft pink grey tempered ware)	25	528
19	Wheelthrown Malvernian ware	14	153
20	White slipped ware	8	197
20.1	White slipped ware	3	16
20.2	White slipped ware	1	6
21.3	Early micaceous ware	56	1044
22	Black-burnished ware, type 1 (BB1)	395	4393
29	Oxfordshire red/brown colour coated ware	1	14
32	Mancetter/Hartshill mortarium	5	672
33.1	Oxfordshire white mortaria	3	58

Fabric	Fabric name	Total	Weight (g)
33.3	Oxfordshire red mortaria with red-brown slip	1	15
34	West Midlands mortarium (Wroxeter ?)	2	27
35	Brockley Hill/Verulamium mortarium	4	227
37	Severn Valley mortarium	14	460
37.3	South-west England mortarium	5	737
42.1	Dressel 20 type	8	45
43	Samian ware	10	132
43.1	Southern Gaulish samian ware	7	152
43.2	Central Gaulish samian ware	10	119
97	Miscellaneous prehistoric wares	262	1224
98	Miscellaneous Roman wares	55	1410
50	'Grass' tempered ware	1	6
69	Oxidized glazed Malvernian ware	1	1
99	Miscellaneous medieval wares	92	987
78	Post-medieval red wares	6	35
81	Stonewares	4	14
83	Porcelain	1	1
85	Modern stone china	24	47
90	Post-medieval orange ware	5	104
91	Post-medieval buff wares	2	5
100	Miscellaneous post-medieval wares	1	1
101	Miscellaneous modern wares	2	2

Iron Age pottery

A total of 237 sherds could be attributed to the Iron Age. Diagnostic sherds indicate that the earliest vessels are of Middle Iron Age date, of which there is a small but significant group. However, due to continuity in fabric types throughout the period, and in some cases into the early Roman period, it is highly likely that there are more sherds of Middle and Late Iron Age date within the assemblage than it has been possible to identify through surviving body sherds. Where it has not been possible to distinguish period on the basis of form or associated finds, the sherd has been included within the quantification for the latest date in the range.

Middle Iron Age

A total of 20 sherds could be firmly identified as being of Middle Iron Age date (contexts 1236, 1836, 2266 and 2686). The majority of sherds were of handmade Malvernian ware (fabric 3) and all were from jar forms (Fig 34.1-2). Sherds of different fabric type consisted of a single sherd of sand-tempered ware (fabric 5.1) and one of an unidentified fabric type (fabric 97).

The sherds of Malvernian ware were all burnished and two displayed a band of decoration below the rim, typical of this period – one from an Iron Age pit in the form of 'duck stamps' (context 1236; Fig 34.1) and the other from a sub-circular enclosure ditch, which had incised lattice decoration (CG 2702: context 2686).

Late Iron Age pottery

Pottery classified as Late Iron Age in date amounted to 288 sherds and consisted primarily of handmade Malvernian ware (fabric 3; 136 sherds), with smaller quantities of sand- (fabric 5.1; Fig 34.3-5), sandstone- (fabric 5.2) and mudstone- (fabric 9) tempered sherds also identified.

Diagnostic sherds of Malvernian ware were once more exclusively from jar forms and the majority were burnished. Many displayed soot or other carbonised residues attesting to use over an open fire for the cooking of foodstuff or liquids.

Discussion of the Iron Age pottery

Evidence for use

Evidence of use was seen exclusively in the form of carbonised deposits, particularly amongst the sherds of Late Iron Age date, a high proportion of which displayed external sooting and/or blackening presumably from being used for cooking over a fire. This is consistent with the Iron Age assemblage from Beckford where external sooting and internal residues were relatively commonly present especially on vessels in locally made fabrics (J Evans, pers comm).

Placed pots

Two vessels of Late Iron Age date were of particular note, both being set into their own cut. The first of these vessels consisted of 77 adjoining fragments from a large mudstone tempered ware jar (fabric 9; context 1804, pit 1805) which contained bone and charcoal fragments. Although the top of this vessel had been truncated, the rim sherds had fallen inwards and therefore the form could still be identified as a jar of Late Iron Age date.

The other placed pot consisted of forty-six sherds from a large flat based vessel recovered from a pit (fill 615, pit 614). The complete base and lower part of vessel wall was recovered as single piece (although damaged and fragmenting as lifted). Several sherds were also recovered from a plough or subsoil furrow, which ran across the top of the complete circumference of the pot as revealed after machining and which had clearly recently truncated the vessel. Further sherds were recovered from the base of the vessel and tipped into its inside, also indicating truncation and damage of a vessel which had almost certainly been buried complete. The vessel base had a diameter of 234mm and was simple and flat in form, breaking to a vessel wall, which flared outwards (to a maximum surviving circumference of 320mm). The external surface of the vessel was undecorated apart from horizontal finger wiping, which had produced a fine external surface finish. Although the full profile was not present and no rim sherds were present, the vessel appears likely to have been a large storage jar of Mid to Late Iron Age date.

Roman pottery

Roman pottery formed the largest material group within the assemblage, amounting to 4,668 sherds and weighing 83.6kg. Spot dating of the Roman pottery highlighted two distinct phases of occupation on the site; the 2009 excavation area being of primarily early-mid Roman date (1st to early 3rd century), and the 2008 excavation area being primarily of later date (mid 3rd century onwards).

Fabrics

Typically for a rural site in Worcestershire, the group was dominated by locally produced pottery of Severn Valley (fabrics 12, 12.1, 12.2, 12.3, 12.5 and 12.6) and Malvernian wares (fabrics 3 and 19) which formed 88% of the total Roman assemblage. Remaining fabrics were identified in smaller quantity but all but a handful were of types commonly found in Roman rural assemblages from the county (see Table 6).

Local/Regional wares

Malvernian wares (fabric 3, 3.1 and 19)

Vessels of Malvernian wares comprised 794 sherds of the handmade fabric (fabrics 3 and 3.1) and just 14 of the wheel thrown (fabric 19). In general, vessels of the handmade fabric dated between the 1st and 2nd century AD and came almost exclusively from 'tubby cooking pot' forms (Fig 34.6-8). The fragments identified as Fabric 3.1 'slab built vessels' all appear to be from large storage jars. Furthermore, the rim sherds present had distinctive faceting, possibly for use as a lid-seat (cf. Evans 2000, JLS3).

Sherds of the wheel thrown version were produced later in the period between the 2nd and 4th centuries and consisted primarily of copies of Black-burnished ware 1 jar forms.

Oxidised Severn Valley wares (fabrics 12, 12.2, 12.5 and 12.6)

Oxidised fabrics of this ware formed the largest proportion of the local wares totalling 4,302 sherds. A significant proportion of these sherds was also diagnostic and could therefore be dated accordingly. Those that were undiagnostic were dated to the general established date range for the production of Severn Valley ware between the mid 1st and 4th centuries.

Common variant fabrics often identified within assemblage from Worcestershire included an organically tempered type (fabric 12.2), a sandy and micaceous type (fabric 12.5) and a type with non-calcareous white inclusions (fabric 12.6).

The range of forms which could be identified amongst the Severn Valley wares was narrow, consisting of commonly identified vessel types (Figs 35 and 36). Vessels of these fabrics remained the dominant ware throughout the period of occupation, although the variations could be seen to peak at different intervals. In general, sherds of the organically tempered type (fabric 12.2) were earlier being of 1st-2nd century date and diagnostic forms of this fabric also indicated a higher occurrence of large vessels within the group.

Reduced Severn Valley wares (fabrics 12.1 and 12.3)

Local reduced wares formed a far smaller proportion of the assemblage than their oxidised counterparts at just 52 sherds. However, the similarity in inclusions between some of the oxidised and reduced fabrics would indicate that a number were produced on the same kiln sites using the same clay source under different firing conditions. Once more, those of the organically tempered variant (fabric 12.3) are thought to be of earlier date.

As with the oxidised Severn Valley wares, the range of forms identified amongst the reduced wares was narrow, consisting primarily of jar and tankard forms.

Severn Valley mortarium (fabric 37.1)

A total of 14 sherds of this fabric were present within the assemblage and included 3 rim sherds, all of hooked form thought to date between the 1st and early 2nd centuries (eg Fig 38.59). In addition, a number of sherds displayed a fragmentary white slip.

Sherds of this mortaria type have been found on the kiln site at Newland Hopfields, Great Malvern and are thought to have been kiln products (Evans *et al.* 2000, 43).

Sandy oxidised ware (fabric 13)

Just nine sherds within the assemblage could be identified as of this fabric type. All were thought to be from jar forms with diagnostic sherds indicating a date range of 2nd-3rd century.

No production sites for this fabric type have so far been found. However, the range of forms identified from sites with large assemblages includes types with affinities to Gloucester Glevum ware and therefore it is thought that they may originate from Gloucestershire (Rawes 1972; Timby 1990).

Fine sandy grey ware (fabric 14)

As with the sandy oxidised ware, only a very small number of sherds were identified as being of fine sandy greyware – just 8 sherds in total. Once more, the source of this fabric is not clear and evidence that exists appears to suggest a number of production areas, possibly in Gloucestershire and Warwickshire.

A single diagnostic sherd from an everted rimmed jar was present and datable to between the 2nd-3rd century.

Coarse sandy grey ware (fabric 15)

Just 12 sherds could be identified as of this fabric type, none were diagnostic. Vessels of this fabric are commonly found in small amounts on Roman sites in Worcestershire and as with the fine sandy greyware and sandy oxidised ware above, are likely to have been produced at more than one source with forms and decorative techniques indicating affinities with both Gloucestershire and Warwickshire products (Bryant and Evans 2004, 33). In general, vessels of this fabric date to the 1st and early 2nd centuries.

Grog-tempered ware (fabric 16)

Grog tempered wares totalled just three sherds, none of which were diagnostic. However, vessels of similar fabric from previously analysed assemblages in Worcestershire have been dated to between the late 1st and early 3rd century and it can be assumed that this is also the case for the sherds from this site.

Pink- grogged ware (fabric 17)

Twenty-five sherds from a single jar of this fabric were retrieved from context 1490 (Fig 37.44). The rim indicated it to be of a form commonly recognised amongst vessels of this type (Booth and Green 1989, type 11) and was decorated with a lightly incised wavy line and abstract painted pattern.

This ware is thought to have been produced in the South Northamptonshire/North Buckinghamshire region and widely distributed to the west between the 3rd and 4th century. This wide distribution of these large and relatively crude pots suggests that they were used as containers for a specific product (Booth and Green 1989, 82). Examples of this ware have been previously identified within assemblages from Sidbury (Evans 1992) and Deansway (Bryant and Evans 2004, 37) in Worcester and from sites in Droitwich (Hurst and Rees 1992).

White slipped ware (fabric 20)

The white slipped ware from this site included two variants in addition to the more commonly identified fabric type. Sherds of the latter amounted to 8 fragments, including one particularly substantial piece thought to have come from a jar form and recovered from the fill of one of the ditches of Enclosure B3 (context 2591). The distribution of this fabric is not understood at present. Sherds appear to have affinities with those of both the Severn Valley tradition (Rees 1992, 48) and products from the late Neronian kilns relating to the earliest military occupation of Gloucester (Timby 1991, 246). However, the main period of use in Worcester appears to be from the earlier 2nd to early 3rd century.

The remaining sherds included three from a single vessel displaying not only white slip but also a pattern made up of roughly incised wavy lines which also derived from Enclosure B3 (context 2489). Similarly decorated vessels are known to have been produced in the vicinity of Shepton Mallet, Somerset and it is possible that this example is of this fabric type (J Evans pers comm.).

The other sherd was identified as coming from a flagon and was of a distinctive pink fabric, distinct from the bright orange type more commonly associated with white-slipped wares in this region. This derived from the fill of the latest phase of Enclosure B (B4: context 2746)

Early micaceous wares (21.3)

A total of 37 sherds of variant micaceous ware (fabric 21.3) were present within the assemblage. This fabric type was first identified on the New Police Station (Griffin 2002) and Magistrate's Court (Jones and Vyce 2000) sites on Castle Street, Worcester. A single waster sherd was also identified within the assemblage from the latter (Jeremy Evans, pers comm.), although a specific source of production has not been ascertained. Identifiable forms from both of these sites were consistently of an early Roman date, with forms of 1st-2nd century predominating. This dating has been further reinforced by forms identified within the assemblages from the Wyre Piddle Bypass excavations (Griffin forthcoming), Bath Road, Worcester (Griffin and Evans 2014) and from Wellington Quarry, Herefordshire (Griffin 2011).

Only a small proportion of these sherds were diagnostic. However, those that were, included forms commonly identified within this fabric type, including rusticated and necked bowl/jars (eg Fig 37.45) as well as a Belgic-type waisted bowl (Enclosure B3: context 2591) similar to an example identified in fine sandy greyware at Deansway, Worcester (Bryant and Evans 2004, type 14).

Non-local/traded wares

Black-burnished ware I (fabric 22)

The non-local assemblage was heavily dominated by Dorset Black-burnished ware 1 vessels, with 395 sherds in total. A large proportion of sherds displayed sooting and/or evidence of burning attesting to use of the vessels over a fire, presumably for cooking purposes.

The majority of sherds were diagnostic and displayed a narrow range of forms, primarily bowls and jars and all of the most commonly identified types (Fig 37.46-56). Vessels spanned the period of supply ranging from the established date for the first occurrence of this ware in the midlands region of AD120 through to the mid 4th century.

Oxfordshire wares (fabrics 29, 33.1 and 33.3)

A very small assemblage of Oxfordshire wares was identified, amounting to just five sherds in total. These consisted of a single sherd of red/brown colour-coated ware (fabric 29), three of white-firing mortaria and one of the orange firing mortaria fabrics (fabrics 33.1 and 33.3 respectively). All occurred within contexts of 3rd-4th century date with the mortaria of M17.4 and C97 form types being of AD240+ (Young 1977).

Mancetter-Hartshill mortarium (fabric 32)

The number of Mancetter-Hartshill sherds identified also totalled five and looked to represent three individual vessels. Of these, just one was diagnostic and came from a hammerhead form which could be dated to AD230-300 (Enclosure A: context 1331; Fig 38.57), the other deriving from ditches associated Enclosure B (Enclosure B3: context 2591; Enclosure B4: context 2674).

West Midlands mortarium (fabric 34)

Mortaria of this fabric type are commonly identified within assemblages from Worcestershire and are thought to have been produced in the Wroxeter area during the first half of the 2nd century.

Two sherds of this ware were retrieved from the site; both undiagnostic body fragments (Enclosure D: context 1574; and context 2291).

Brockley Hill/Verulamium mortarium (fabric 35)

Four sherds could be identified as being of this fabric type (Enclosure B3: context 2591). Although only found in small amounts in this region, mortaria of this fabric had a wide distribution throughout Britain in the 1st and 2nd centuries due to supply to the forts along Hadrian's Wall.

Imported wares

Amphora (fabric 42.1)

A total of eight sherds from the base of a Dressel 20 amphora, including the spike were retrieved (context 2274). It was datable to between the late 1st and early 3rd century.

Samian ware (fabric 43.1 and 43.2)

A total of 27 sherds of samian ware were recovered, all of either South Gaulish (fabric 43.1) or Central Gaulish (Fabric 43.2) production, which is consistent with the decline of the site in the late 3rd, possibly early 4th century.

Diagnostic sherds indicated a narrow range of forms within the group with Dragendorff 18/31 being the most common type (Fig 38.62). In addition there was a single Dragendorff 38 (Fig 38.61) and a 15/31.

North Gaulish mortaria (fabric 36.1)

The most distinctive of these consisted of five substantial sherds from a mortarium, which although retrieved from three separate and widely separated contexts (1436, 2571 and 2708) could be cross-joined to form a near-complete vessel (Fig 38.60). The fabric was pale buff in colour and the vessel was particularly distinctive due to a lack of trituration grits, other than a small amount embedded into the flange. The flange itself was hooked and featured a large spout.

Vessels of this fabric are generally of 1st –mid 2nd -century date. Examples identified at Usk came from contexts dated between AD50-85 (Hartley 1993, 391), whilst those from Kenchester were of later production and thought to date between AD80-150 (Hartley 1985, 144).

Miscellaneous unidentified Roman sherds of note (fabric 98)

A total of 48 sherds were of fabric types that could not be identified and were, therefore, grouped as miscellaneous wares. Two sherds were identified as coming from a tettura or beaker form, similar to one recorded at Usk (form 14) which dated to the mid 1st-2nd century (Enclosure B4: context 2571). The fabric of these sherds was highly micaceous and it is possible that the vessel was produced at Caerleon.

Other distinctive sherds consisted of 16 from a jar or flagon form with thin walls and highly pronounced rills on the internal surface from the fill of the latest phase of a series of late Iron Age to Early Roman gullies (CG 2284: context 2703). The fabric of these sherds was pale buff in colour and contained inclusions of quartz and possible grog. Remaining miscellaneous sherds of note included 30 from a coarse tempered jar form which had evidently been used over a fire due to a heavily blackened base (context 2213).

Forms

The range of forms present was similarly standard for a rural assemblage with jars dominating, followed by tankards and bowls with other identifiable forms such as beakers and flagons seen in significantly smaller quantity.

Specialised forms consisted primarily of mortaria with 35 sherds identified, the majority being of local manufacture. As typical of this region, amphorae formed only a minor proportion of the assemblage with just eight sherds of Dressel 20 type identified, all from a single vessel.

Likewise, Samian wares formed only a small proportion of the group, amounting to 27 sherds. All were plain and just two partial stamps were identifiable. From initial identifications it would appear that the majority were South or Central Gaulish products (fabrics 43.1 and 43.2 respectively).

Perhaps most notable within the assemblage was the distinct shortage of Oxfordshire colour-coated wares (fabrics 29 and 30), which amounted to just four sherds. This taken in combination with the lack of late Black-burnished ware I and Severn Valley ware forms would indicate a decline or ending of occupation sometime in the late 3rd-early 4th century.

Functional composition of the assemblage

The rim sherds present within the assemblage amounted to a Rim Equivalent (RE) total of 59.20. Ten main categories were identified and classified according to the accepted definitions (Millet 1979; Evans 1993). These were beaker, cup, bowl, dish, flagon, jar, lid, mortaria and tankard.

Range of forms

The relative proportions of vessels of each form as established by EVE rim equivalent (RE) is presented in Table 7. From these figures, it can be clearly seen that the jar was the dominant vessel type present, accounting for 62% of diagnostic forms identified. This figure, along with the relatively small proportion of bowl and dishes at just 13%, is consistent with that frequently noted within assemblages from rural sites where jars commonly constitute over 50% and bowls under 30% of forms identified (Jeremy Evans pers comm.). This high frequency of jar forms can be attributed to the versatile nature of the form serving a variety of functions including the storage, cooking and serving of foodstuffs.

Table 7: Pottery. EVE by form and form type

Pot form type	EVE (RE)	% of group
Beaker	1.19	2.0
Bowl	6.25	10.5
Cup	1.03	1.7
Dish	1.16	2.0
Flagon	1.09	1.8
Jar	36.50	61.9
Lid	0.22	0.4
Mortarium	1.44	2.4
Tankard	9.33	15.8
Tettina	0.14	0.2
Unidentified form type	0.78	1.3

Drinking vessels constituted 20% of EVE's by RE. This figure includes tankards, by far the most common type, cups and beakers. This figure is high for established patterns of

rural assemblages, the presence of an unusually large proportion of tankard forms having significantly increased the total. Tankards are a regional anomaly, their production being confined largely to the Severn Valley area (Evans 2001, 30). As illustrated in the case of this site, the occurrence of this vessel type in rural assemblages from this region can raise the drinking vessel proportion of an assemblage to the point where it no longer fits into established functionality patterns.

Vessel form in relation to fabric

Analysis of diagnostic sherds within the assemblage revealed only a narrow range of forms, even in locally produced fabrics. Forms of Severn Valley ware, Malvernian ware and Black burnished ware I, the most commonly identified fabric types are discussed in more detail below.

Severn Valley ware

Vessel forms within these locally produced fabrics were identified according to the main groups identified by Webster (1976). The variety of forms recorded was relatively wide with a variety of common and more specialised form types identified (Table 8).

Table 8: Severn Valley ware. Relationship between fabric and form by EVE RE measurement

Pot form type	Total EVE (RE)	% of group	12	12.1	12.2	12.3	12.5	12.6
Bowl	4.09	10	3.95					0.14
Cup	1.03	2.5	0.67				0.36	
Flagon	1.09	2.7	0.44		0.25			0.40
Jar	25.45	62	22.10	0.11	2.42	0.15	0.23	0.44
Tankard	9.33	22.8	7.18	0.53	0.87		0.41	0.34

Proportions of form types amongst the Severn Valley wares followed the same pattern of that of the assemblage as a whole with jars dominating.

Forms comprised mainly jars, tankards and bowls, with more specialised forms including carinated cups, colander and handled jar/flagon forms (Figs 35 and 36). Jars were the most common form type amongst the Severn Valley ware fabrics with narrow-necked types numbering over double those of the wide-mouthed variety. In contrast to the more versatile jar forms only 35 bowls could be identified, possibly as a result of wide-mouthed jars being able to serve the same function adequately.

Tankards of Severn Valley ware were the main specialised drinking vessel form retrieved from the site, with a very small group of 13 carinated cups being the only additional specific drinking forms, although other vessels may have doubled up to serve this function also. Frequency of tankard forms is extremely variable from site to site. However, comparison with assemblages from other sites in the vicinity of Worcester, indicates that the proportion seen here falls into the upper end of the general range.

Other specialised forms amongst the Severn Valley wares consisted of two fragments from a single colander and six open mouthed flagon/handled jars. Both of these form types are common components of Severn Valley ware assemblages.

Malvernian wares (fabrics 3, 3.1 and 19)

Vessel forms within the Malvernian wares were classified according to the classes defined by Peacock (1967) and Evans (2000). The range of forms identified was narrow but comprised a standard range of types commonly seen on rural sites of this nature (Table 9).

Table 9: Malvernian wares. Relationship between fabric and form by EVE RE measurement

Pot form type	Total EVE (RE)	% of group	3	19
Bowl	0.09	1.8	0.09	
Dish	0.09	1.8	0.09	
Jar	4.47	91.8	4.07	0.40
Lid	0.22	4.5	0.22	

The handmade Malvernian ware (fabric 3) assemblage was dominated by jar forms, primarily of tubby cooking pot' type (Fig 34.6-10). The majority had a plain in-turned rim but a small number were beaded. All were burnished with a significant proportion displaying pattern burnish in the form of vertical lines.

Other forms of this fabric consisted of a 'pie-crust' rim decorated with incised lines and a flanged bowl imitating those seen in BB1 (Fig 34.10).

Due to the small number of wheelmade Malvernian sherds (fabric 19) within the assemblage, just one form was identified. This was an everted rim jar imitating that of the latest BB1 type 3 and datable to between the 3rd-4th centuries.

A small number of slab-built vessels (fabric 3.1) were also identified within the assemblage but were too fragmentary to be included in the EVE calculations. Where fragments of rim could be identified, these were generally faceted and burnished.

Black-burnished ware I (fabrics 22)

Black-burnished ware vessel forms were classified according to the main groups within the Wessex Archaeology (WA) form series (Seager Smith and Davies 1992). Only a narrow range of forms was present (Table 10), the majority being of jar and bowl types commonly identified on sites across the west Midlands region (Fig 37.46-56).

Table 10: Black-burnished ware I. Relationship between fabric and form by EVE RE measurement

Pot form type	% of group	22
Beaker	4.7	0.30
Bowl	26.0	1.87
Dish	11.7	0.84
Jar	58.0	4.19

The most common form type was the everted rim jar, with those of the 2nd-early 3rd date (WA types 1 and 2) outnumbering those of the latest typology (WA type 3). This is consistent with the notion that the site goes out of use in the late 3rd or at the beginning of the 4th century.

Likewise, bowl and dish forms were primarily of 2nd century date with plain and flanged rim types dominating (WA types 20 and 22). The small group of drop flanged bowls (WA type 25) which are generally of later date were all of the earliest form of this type with high flanges and therefore most likely no later than mid 3rd century.

Likewise, the slightly more unusual forms within the group included two miniature jar/beakers (WA type 10) and a round-bodied open bowl (WA type 13) which are also more typical of the 2nd century.

Slightly more unusual forms within the group included two miniature jar/beakers (WA type 10) and a round-bodied open bowl (WA type 13) which are also more typical of the 2nd century.

Catalogue of the illustrated Iron Age and Roman pottery (Figs 34-38)

1. Jar with simple inturned rim with grooved top and duck-stamped decoration in handmade Malvernian ware (fabric 3), Middle Iron Age, Pit 1237, Fill 1236
2. Globular jar with simple upright rim in handmade Malvernian ware (fabric 3), Middle Iron Age, Enclosure B3, Ditch 2539, Fill 2538
3. Globular jar with upright flat rim in sand-tempered ware (fabric 5.1), Middle Iron Age, Enclosure B1, Ditch 1837, Fill 1836
4. Barrel-shaped jar with lipped bead rim in sand-tempered ware (fabric 5.1), Middle Iron Age, Enclosure B1, Ditch 2286, Fill 2287
5. Jar with near-upright sides in sand-tempered ware (fabric 5.1), Late Iron Age, Enclosure B3, Ditch 2227, Fill 2226
6. Tubby cooking pot in handmade Malvernian ware (fabric 3), 1st-2nd century AD, Enclosure C2, Ditch 2347, Fill 2346
7. Tubby cooking pot with bead rim in handmade Malvernian ware (fabric 3), late 1st-early 2nd century AD, Enclosure B2, Ditch 2616, Fill 2614
8. Tubby cooking pot with bead rim in handmade Malvernian ware (fabric 3), late 1st-early 2nd century AD, Enclosure B1, Ditch/fill 2206
9. Large storage jar in handmade Malvernian ware (fabric 3), 1st century AD, Drove/track CG 1589: Evaluation Trench 1, Ditch 103, Fill 142
10. Flange-rimmed dish imitating BB1 form in handmade Malvernian ware (fabric 3), 2nd century AD, Enclosure B3, Ditch 2613, Fill 2611
11. Wide-mouthed flagon in oxidised organically tempered Severn Valley ware (fabric 12.2), mid-late 1st century AD, Enclosure B2, Ditch 2541, Fill 2540
12. Wide-mouthed flagon in oxidised organically tempered Severn Valley ware

- (fabric 12.2), early 2nd-early 3rd century AD, Enclosure B3, Evaluation Trench 4, Ditch 403, Fill 453
13. Globular jar with pulled rim in oxidised organically tempered Severn valley ware (fabric 12.2), late 1st-early 2nd century AD, Enclosure B2, Ditch 2500, Fill 2499
 14. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Drove/track CG 1589: Evaluation Trench 1, Ditch 103, Fill 104
 15. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Enclosure B2, Ditch 2541, Fill 2540
 16. Narrow-mouthed storage jar in oxidised organically tempered Severn Valley ware (fabric 12.2), late 1st- mid 2nd century AD, Enclosure B2, Ditch 2541, Fill 2540
 17. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Enclosure B4, Ditch 2573, Fill 2571
 18. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Enclosure B4, Ditch 2573, Fill 2571
 19. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Enclosure B4, Ditch 2573, Fill 2571
 20. Narrow-mouthed storage jar in oxidised Severn Valley ware (fabric 12), 2nd-3rd century AD, Enclosure B4, Ditch 2573, Fill 2571
 21. Pulley-rimmed jar in oxidised Severn valley ware (fabric 12), 3rd-4th century AD, Enclosure A, Ditch 1131, Fill 1129
 22. Wide-mouthed jar in oxidised Severn valley ware (fabric 12), 2nd-3rd century AD, Evaluation Trench 38, Ditch 3808 (associated with Enclosure E)
 23. Wide-mouthed jar in oxidised Severn valley ware (fabric 12), 2nd-3rd century AD, Enclosure A, Ditch 1131, Fill 1129
 24. Wide-mouthed jar in oxidised Severn valley ware (fabric 12), 2nd-3rd century AD, Drove/track CG 1589, Ditch 1440, Fill 1438
 25. Wide-mouthed jar in oxidised Severn valley ware (fabric 12), 2nd-late 3rd century AD, Evaluation Trench 38, Ditch 3808 (associated with Enclosure E)
 26. Wide-mouthed jar in oxidised Severn valley ware (fabric 12), late 3rd-4th century AD, Enclosure A, Ditch 1131, Fill 1129
 27. Everted rimmed jar in oxidised Severn Valley ware (fabric 12), mid 1st-4th century AD, Enclosure A, Ditch 1124, Fill 1123
 28. Straight-sided tankard in oxidised organically tempered Severn Valley ware (fabric 12.2), mid-late 1st century AD, Enclosure B2, Ditch 2541, Fill 2540
 29. Straight-sided tankard in oxidised Severn Valley ware (fabric 12), mid-late 1st century

AD, Enclosure B4, Ditch 2573, Fill 2571

30. Straight-sided tankard in oxidised Severn Valley ware (fabric 12), mid-late 1st century AD, Enclosure B4, Ditch 2573, Fill 2571
31. Straight-sided tankard with incised lattice decoration in oxidised Severn Valley ware (fabric 12), 2nd century AD, Enclosure B4, Ditch 2573, Fill 2571
32. Moderately flared tankard in oxidised Severn Valley ware (fabric 12), 2nd-early 3rd century AD, Enclosure B4, Ditch 2573, Fill 2571
33. Highly flared tankard in oxidised Severn Valley ware (fabric 12), 3rd-4th century AD, Boundary CG 1538, Ditch 1266, Fill 1267
34. Highly flared tankard in oxidised Severn Valley ware (fabric 12), 3rd-4th century AD, Evaluation Trench 38, Pit 3813, Fill 3803 (associated with Enclosure E)
35. Small bowl/cup in oxidised Severn Valley ware (fabric 12) and similar in form to early Neronian vessels from the continent, mid-late 1st century AD, Enclosure B2, Ditch 2292, Fill 2291
36. Segmental bowl in reduced Severn Valley ware (fabric 12.1), 2nd century AD, Enclosure A, Ditch 1131, Fill 1129
37. Flanged bowl with grooved rim in oxidised Severn Valley ware (fabric 12), 2nd-3rd century AD, Enclosure A, Ditch 1131, Fill 1129
38. Flanged bowl in oxidised Severn Valley ware (fabric 12), 2nd-3rd century AD, Evaluation Trench 38, Pit 3813, Fill 3803 (associated with Enclosure E)
39. Flanged bowl in oxidised Severn Valley ware (fabric 12), 2nd-3rd century AD, Enclosure B2, Ditch 2292, Fill 2291
40. Flanged bowl in oxidised Severn Valley ware (fabric 12), 3rd century AD, Enclosure A, Ditch 1131, Fill 1129
41. Flanged bowl in oxidised Severn Valley ware (fabric 12), 3rd century AD, Evaluation Trench 38, Pit 3813, Fill 3803 (associated with Enclosure E)
42. Spout in oxidised Severn Valley ware (fabric 12), mid 1st-2nd century AD, Ditch 1734, Fill 1733
43. Body sherd of oxidised organically tempered Severn Valley ware (fabric 12.2) with perforation, mid 1st-2nd century AD, Drove/track CG 1589, Ditch 1440, Fill 1438
44. Body sherd of pink grogged ware (fabric 17) with painted decoration, 2nd- 4th century AD, Enclosure A, Ditch 1492, Fill 1490
45. Flanged bowl with lug scar in early micaceous ware (fabric 21.3), mid 1st-2nd century AD, Enclosure B4, Ditch 2661, Fill 2660
46. Jar with slightly everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD,

Enclosure B4, Ditch 2573, Fill 2571

47. Jar with slightly everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
48. Jar with slightly everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
49. Jar with slightly everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
50. Jar with slightly everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
51. Jar with everted rim in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
52. Miniature jar/beaker in Black-burnished ware 1 (fabric 22), 2nd century AD, Enclosure B2, Ditch 2292, Fill 2291
53. Plain rimmed dish in Black-burnished ware 1 (fabric 22), late 2nd-3rd century AD, Enclosure B2, Ditch 2292, Fill 2291
54. Plain rimmed dish in Black-burnished ware 1 (fabric 22), late 2nd-3rd century AD, Enclosure D, Ditch 1640, Fill 1639
55. Flange rimmed dish in Black-burnished ware 1 (fabric 22), late 2nd-3rd century AD, Drove/track CG 1589, Ditch 1588, Fill 1591
56. Drop-flange rimmed bowl in Black-burnished ware 1 (fabric 22), early-mid 3rd century AD, Enclosure A, Ditch 1131, Fill 1129
57. Mortarium in Hartshill-Mancetter ware (fabric 32), AD 230-300, Enclosure A, Ditch 1332, Fill 1331
58. Mortarium in Oxfordshire white ware (fabric 33.1), AD240-300, Building A, Pit/post 1442, Fill 1441
59. Mortarium in Severn Valley ware (fabric 37), 1st-early 2nd century AD, Enclosure B4, Ditch 2532, Fill 2530
60. Mortarium in North Gaulish fabric (fabric 36.1), 1st-early 2nd century AD, conjoining sherds from Drove/track 1589, Ditch 1437, Fill 1436; from Enclosure B4, Ditch 2573, Fill 2571; and from Enclosure B2, Ditch 2710, Fill 2708
61. Dragendorff 38 bowl in Samian ware (fabric 43), mid 2nd-mid 3rd century AD, Evaluation Trench 1, Topsoil 100
62. Dragendorff 18/31 dish in Samian ware (fabric 43), mid 2nd-mid 3rd century, Drove/track CG 1589, Evaluation Trench 1, Ditch 143, Fill 144

Discussion

Pottery supply and use at Church Farm West

Characterisation of the Roman assemblage from Church Farm West has been aided over recent years by a recent increase in comparable data resulting from the excavation of similar rural sites across Worcestershire. The results from this assemblage will continue to add to and build on this growing body of published, quantified data and contribute to future syntheses.

The site is located to the north-west of modern Worcester and would have made up part of the hinterland of the Roman small town. There was a small assemblage of possible late Iron Age material, although the majority of this material could also date to the very early Roman period and in general, was present in contexts of 1st century date.

Although the assemblage appears to have spanned the Roman period, the range of fabrics and dating of identifiable forms within the assemblage would indicate two distinct phases and areas of occupation on the site with the northern area being of primarily 1st-early 3rd century date, and the southern area of mid-late 3rd/early 4th century. There was no Roman material thought to date later than early 4th century.

As expected, material of the 1st and earlier 2nd centuries was dominated by locally produced Severn Valley and handmade Malvernian wares. The Severn Valley wares also conformed to the typical pattern of early assemblages with organically tempered sherds forming the bulk of the group. One of the more interesting aspects of the early Roman pottery is the lack of grog tempered sherds, which have increasingly been found to form a significant aspect of other 1st-2nd century assemblages on sites in the Worcester hinterland such as at Swanpool Walk, St Johns, Worcester (Evans 2014) and Hindlip (Griffin 2015). Sherds of Black-burnished ware I were also found in modest numbers in contexts of early Roman date – the first wave of a ware type that would be far more dominant in contexts of 2nd-3rd century.

There is a noticeable decline in the number of sherds and range of pottery within the assemblage from the mid 3rd century. The latest material consisted of a small group of Oxfordshire wares and the typologically later Black-burnished ware I forms, all of which could be dated from the mid 3rd century onwards. However, the absence of any South Midlands shell-tempered ware or Oxfordshire parchments wares would suggest that Roman occupation goes no later than the earlier half of the 4th century.

As has been described above, the range of fabrics and forms is in most ways typical of rural sites in the region. There is a dominance of locally produced fabrics and utilitarian forms, in particular jars and tankards. The manufacture of Severn Valley ware was part of a widespread regional tradition of similar vessels, with few kiln sites actually located, although production is known to have taken place at various sites along the Severn Valley from Shepton Mallet in the south and as far as Wroxeter in the north (Bryant 2004, 246). However, neutron activation analysis has indicated that the well-documented kiln sites at Malvern were the most common source of these wares found on sites in Worcestershire (ibid. 250). As typical of sites in this region, the majority of Severn Valley ware sherds from the site were of oxidised fabrics. This would appear in main to be a conscious decision on the part of the potters but the proportions may also have been affected to some degree by the apparently low levels of domestic occupation represented at the site during the earlier Roman period when vessels of the reduced fabrics are thought to have been at their most common.

Sherds of the coarser handmade and wheelmade Malvernian wares (fabrics 3, 3.1 and 19) are also known to have been produced on these same sites (Evans *et al* 2000). These wares formed the second largest fabric group from the site, amounting to 17.3% of the assemblage with forms present indicating use predominantly for cooking and food preparation. In addition, many of the Black-burnished ware 1 vessels would also have been used for this purpose with sherds of this fabric type forming 8.5% of the assemblage. Comparison with other assemblages from across the region indicate that relative proportions of these ware types vary greatly from site to site with Black-burnished wares the dominant cooking ware on sites such as Hoarstone Farm, Kidderminster (Hurst 1994) and Hindlip (Griffin 2011) and Malvernian wares at Throckmorton (Griffin 2005a) and Linacres Farm, North Claines (Dalwood *et al* 1998). Previous analysis of Black-burnished ware figures from sites in the wider west Midlands region has led to the conclusion that the proportion typically varies from site to site, in part due to transportation routes but also influenced by site status, identity and exchange relationships (Griffin 2011; Allen and Fulford 1996). Indeed, this would appear to be the case for Worcestershire, although it could be asserted that rural sites in the south of the county have consistently low numbers of BB1 vessels (Timby 2004; Griffin 2005a and forthcoming), whereas those in the north have a greater proportion, presumably due to the location of the Malvern kilns.

One of the most striking features seen amongst the Black-burnished ware assemblage is the occurrence of discreet groups of vessels within single contexts rather than sherds being randomly dispersed across the site. For example, the eastern arm of the ditch defining the southern side of Enclosure B2 (fill 2291) contained a 'set' of 6 jars, 1 bowl and 1 miniature jar/beaker, the eastern side of Enclosure B3 (fill 2591) contained 6 jars and lastly one of the ditches defining Enclosure B4 (fill 2674) produced 6 jars, 4 bowls and 1 miniature jar/beaker. Two of these (2291 and 2674) were located close to the enclosure entrances and this may be significant. Work on Iron Age material in Britain has identified evidence of special deposits, including pottery, indicating structured depositional regimes; these have been interpreted as arising from ritual activity and have been commonly identified associated with entrances to enclosures and buildings (Hill 1995). Whilst such practices in the Roman era have yet to be commonly demonstrated amongst the ceramic evidence it is important that their potential existence is recognized and that pottery deposits are monitored for unusual or systematic features perhaps suggesting ritual actions (cf. Willis 1997a, 46-7; Clarke 1997).

The levels of fineware pottery at Top Barn were consistent with those of a lower order rural settlement with just 27 sherds of Samian ware and 13 of other fabrics including Oxfordshire colour-coated and white-slipped wares. Similarly low levels of these wares have also been noted at Throckmorton (Griffin 2005a), Wyre Piddle (Griffin forthcoming), Strensham (Ratkai 1995) and Shire Farm, Hawford (Topping and Buteux 1995). Two notable exceptions from the county are the Childswickham villa site which had a far wider range of finewares, both imported and regional (Timby 2004) and the late 4th century assemblage from Upper Moor (Griffin 2005b). Therefore it would appear that the supply network for such wares was there throughout the period and that there must have been other factors influencing the use of finewares within the region. Presumably, in the case of Childswickham, this was status, whilst the very late nature of the assemblage from the Upper Moor site led to a significant increase in fineware levels there.

Mortaria used prior to this later period consisted primarily of locally produced Severn Valley and West Midlands types, with smaller numbers of Hartshill-Mancetter, and Brockley Hill/Verulamium products. West Midlands and Severn Valley mortaria with the addition of single examples from other sources (see above).

It can therefore be seen that although the pottery consumed by the site at Church Farm West during the Roman period came from a fairly extensive range of sources, this was largely due to the longevity of occupation and the majority of these wares, as would be expected, were of local production.

Discussion of the artefacts by enclosure

Enclosure A: Late 3rd-4th century

A total of 807 sherds were retrieved from contexts within this enclosure. Diagnostic sherds dated from the 2nd century onwards, indicating a fairly high level of residuality within the ditches making up this enclosure.

Roman fabrics present from Enclosure A followed the general pattern seen across the site as a whole with oxidised Severn Valley ware (fabric 12) dominating. Likewise, forms present consisted of a fairly standard range of domestic types with jars dominating. The latest datable forms included highly everted Black-burnished ware 1 jars (WA type 3), wide-mouthed jars and highly splayed tankards of Severn Valley ware and a beaker of Oxfordshire red/brown colour-coated ware (fabric 29; context 1123). A number of very large jars were also identified amongst this group and are thought to have been used for storage of foodstuffs or liquid.

Other sherds of note consisted of two base sherds that appeared to have been deliberately chipped from vessels (contexts 100 and 116). The latter of these was of a coarser than usual Severn Valley ware fabric (fabric 12) and displayed a high degree of burning and blackening on the underside. It is likely that this sherd was removed from its original vessel following discard and possibly re-used as a lid for other cooking vessels.

Other notable finds of Roman date found within contexts from this enclosure included three hobnails (contexts 1129, 1156 and 1561), two nails (contexts 1125 and 1126), a latchlifter, three fragments of quern (contexts 1490 and 1505), two highly abraded pieces of roofing tile (context 221) and 3 large pieces of sandstone, thought to be building material (contexts 1156, 1490 and 1491). The presence of tile and building stone as well as a latchlifter may suggest a structure of note somewhere in the vicinity of the site.

In addition to the Roman material, a small amount of later sherds were also identified within contexts from this enclosure group. These consisted of a single sherd of early medieval grass-tempered ware (fabric 50; context 1451) and a small green-glazed fragment of unidentified medieval fabric (fabric 99; context 1354).

Enclosure B

This is the longest lived of the enclosures with 4 phases of re-cutting and alteration, as indicated by stratigraphy, dating of artefacts and large number of artefacts recovered. Finds included the two well-preserved brooches, as well as a *ligula* and a large proportion of the hobnails found. Combined with the large amount of pottery from contexts in this area of the site, it could be assumed that this enclosure was largely domestic in nature. However, it should also be noted that the majority of iron slag, including a number of smithing hearth base fragments were also retrieved from the

enclosure ditch and related features, indicating there also to have been industrial activity occurring in close vicinity.

Enclosure B1: Late Iron Age (Context Groups 1837 and 2244)

Pottery from the first phase of Enclosure B totalled 80 sherds. The range of fabrics was narrow with handmade Malvernian ware and sand-tempered ware of Late Iron Age date dominating. Subsequent re-cutting of the enclosure ditch (to form Enclosure B2) probably accounts for the small amounts of oxidised Severn Valley ware which were also present but are considered intrusive.

Other finds were consistent with a Late Iron Age date for this first phase of Enclosure B, consisting of 18 pot-boiler stones (contexts 2303 and 2287) and 27 fragments of undiagnostic fired clay (context 1836). In addition, some fragments of iron slag were also identified, including a possible smithing hearth base. Similar material has been identified in small amounts across the site in Roman contexts, including in subsequent phases of Enclosure B.

Enclosure B2: 1st century (Context Groups 2265 and 2600)

Pottery from Enclosure B2 amounted to 347 sherds. Fabrics and forms are generally consistent with what would be expected for a feature of early Roman date but there is clearly some intrusive material from later reworking of this to form Enclosure B3.

Roman fabric types typical of early production included organically tempered Severn Valley ware (fabrics 12.2 and 12.3) as well as early micaceous ware (fabric 21.3) with mid 1st-early 2nd century forms including straight sided tankards and carinated beakers present. In addition, handmade Malvernian ware jars of similarly date were also identified (fabric 3).

Sherds of particular note from this enclosure consisted of a substantial piece of the Gallia Belgica mortarium described above. The first century date given to this enclosure further supports the assumed early date of this vessel.

Other finds from Enclosure B2 included the Aucissa type brooch (context 409) and the ligula (context 524), both consistent with a 1st century date. In addition, 18 fragments of Roman tile were identified, adding further strength to the notion that there was a 'Romanised' structure on or in close vicinity to the site.

Burnt/fired clay from this enclosure was particularly notable for appearing to have been burnt in situ – possibly as a result of a domestic process such as cooking but may also relate to the iron slag identified within Enclosure B1.

Enclosure B3: 2nd century (Context Groups 2259, 2575 and 2823)

A total of 286 sherds were recorded from the contexts associated with this phase of Enclosure B. Once more, Severn Valley wares dominated the group with those containing organic temper also still very much in evidence. In addition, other fabric types more commonly associated with 2nd-3rd century assemblages are noted for the first time within this enclosure. These include white slipped ware (fabric 20), Black-burnished ware I moderately everted rim jars (fabric 22; WA types 1 and 2). The dating indicated by

diagnostic sherds within contexts of this enclosure indicate a late 2nd century *terminus post quem*.

There was also a notable increase in the presence of mortaria within contexts of this phase of the enclosure with 15 sherds recovered in total and representing products of the Hartshill-Mancetter (fabric 32), Verulamium (fabric 35) and Severn Valley (fabric 37) industries.

Other finds from this enclosure were consistent with those from B1 and B2 and included a further fragment of possible hearth lining (context 2527), 8 pot-boiler stones (context 2311) and a hobnail (context 2744).

Enclosure B4: 3rd century (Context Groups 2606, 2798 and 2800)

A total of 627 sherds weighing 13,853g were retrieved from contexts associated with this final phase of Enclosure B. The group displayed a range of fabrics and forms consistent with a 2nd to 3rd century date and following the pattern already established across the site with oxidised Severn Valley wares dominating. Forms amongst these Severn Valley wares were more varied than seen amongst the groups of earlier date with narrow- and wide- mouthed jars, bowls and tankards all identified. In particular, the number of tankards was particularly high with sherds from 27 individual vessels identifiable. Although it has been noted previously that a high proportion of ceramic drinking vessels in assemblages seems to be typical of groups from the Severn Valley region (Willis 2012), the high occurrence in this specific enclosure in comparison to frequency across the site as a whole is of particular note.

Other finds from this enclosure included personal objects in the form of an unusual 'Birdlip type' brooch and 42 hobnails, presumably from one or a pair of sandals. In addition, contexts from this phase of the enclosure followed the same pattern of those preceding with smithing slag, including a hearth base (contexts 2660 and 2809) and building material in the form of both ceramic tile, including an imbrex (context 2571) and stone fragments (context 2660).

Enclosure C: Late Iron Age (Context Groups 2369 and 2351)

A total of 147 sherds weighing 3,757g were retrieved from contexts associated with this enclosure. This pottery was of particular note due to all sherds being of locally produced fabrics with handmade Malvernian ware (fabric 3) dominating and small amount of oxidised Severn Valley ware also retrieved.

Recognisable forms amongst the Malvernian wares were predominantly of Middle-Late Iron Age in date and included both of the 'placed pots' discussed above. The latest datable form was that of a tubby cooking pot type. Identifiable forms of Severn valley ware were early in date, probably 1st century and from two carinated beakers (Webster 1976, forms 59 and 60). Therefore it would appear that this enclosure was first constructed in the Late Iron Age and went out of use at some point during the 1st century AD.

Other material from this enclosure consisted of two fragments of fired clay (context 2403).

Enclosure D: mid 1st-late 2nd century (Context Groups 1896 and 1897)

A total of 43 sherds were retrieved from contexts within this enclosure group. Low levels of residuality could be observed but the majority of fragments were undiagnostic. Once more, oxidised Severn Valley ware (fabric 12) dominated with the only other fabric types present consisting of a fragment of sandy briquetage (fabric 1), two sherds from a Black-burnished ware 1 (fabric 22) flanged dish and a small sherds from a West Midlands mortarium (fabric 34).

Enclosure E: Late 3rd century (contexts 3704, 3705 and 3808)

A large assemblage of 1,141 sherds of pottery was retrieved from contexts within this enclosure. Of these, 1,118 came from a single pit (discussed in more detail below). The remaining 23 sherds formed a standard group of local and commonly identified non-local fabrics with diagnostic sherds ranging between the late 2nd and late 3rd century in date.

Pit 3813

A substantial assemblage of 1,118 sherds of pottery and 62 fragments of fired clay were retrieved from the fill (3803) of this pit. The terminus post quem date for this feature, as indicated by the pottery was of late 3rd century. However the presence of earlier forms and level of abrasion amongst some sherds would indicate a high occurrence of residuality within the group. A high number of conjoining sherds from individual vessels were identified.

Oxidised Severn Valley ware dominated the assemblage amounting to 844 sherds in total. Wide-mouthed jars (Webster 1976, 26-29; figs 4-6; nos 22-29) ranging in date from the 2nd to 4th century were the most common form present. Remaining forms consisted of four flanged bowls of 2nd-3rd century date (*ibid*, 31-34; figs 8-9; nos 47 and 51), one 4th century tankard (*ibid*, 30-31; fig 7, no 44) and six narrow-mouthed jars dating between the 2nd and 4th century (*ibid*, 25-26; fig 4, nos 17, 18 and 19). In addition, a single undiagnostic sherd of the earlier Severn Valley ware variant (fabric 12.2) was also identified.

Remaining fabrics identified within the context consisted of five sherds of handmade Malvernian ware (fabric 3), four sherds of fine sandy greyware (fabric 14), eight sherds of Black-burnished ware type I (fabric 22) and 2 sherds of samian ware (fabric 43).

The fired clay cannot be dated to any greater degree than the general date range indicated by the pottery assemblage.

Early medieval

Introduction

A small but significant assemblage of early medieval pottery was identified, amounting to 64 sherds from at least five individual vessels (Fig 39). Pottery of this date is rare in Worcestershire and therefore the size of assemblage, range of fabrics and presence of diagnostic sherds is of particular importance to furthering knowledge and understanding of vessels of this period.

A range of fabrics were present, all of which strongly resemble types previously identified from sites within the region, most notably the Upwich excavations in Droitwich (Lentowicz 1997) and Aston Mill, Kemerton (Evans 1990). These included Quartz-tempered ware (fabric 107), grass-tempered ware and a chaff-tempered fabric.

Discussion of the early medieval pottery by context

Sunken Featured Building 1691

Abandonment deposit 1690

The largest group amounted to 33 sherds from a single vessel retrieved from a deposit (context 1690) representing the infill or abandonment of a Sunken Featured Building (1691). The vessel was of a sandy fabric, likely to have been of local production and bears some resemblance to the Quartz tempered ware (fabric 107) identified within the assemblage from Upwich. A large section of rim survives and it looks as if the vessel originally had a perforated lug. However, the most unusual and interesting feature of this vessel is that it appears to have broken along a coil during firing, indicating that the rim was formed separately to and attached to the vessel body. This not only gives an insight into how these vessels were made but would also indicate that it was produced in close vicinity to the site.

Occupation deposit 1759

A further sherd from the quartz-tempered vessel described above was retrieved from context 1759, which was a deposit containing a high proportion of burnt material spread across the base of part of the Sunken Featured Building.

A further 29 sherds of the same date but different fabrics were also retrieved from this deposit. Three fabric types were identifiable amongst these sherds. Once more, all are thought to be of local production and are of previously known fabric types, including a further quartz tempered fabric similar to that described above, a grass-tempered ware and a chaff-tempered ware. In addition, the quartz- and grass-tempered fabrics are also associated with rim sherds identifying them as coming from jar forms.

Enclosure A: recut ditch

An additional sherd of 'grass'-tempered ware was identified within the material from context 1451, the fill of a recut section of ditch (cut 1452). This fragment was highly abraded and undiagnostic but likely to be of the same date as those described above.

Dating of the pottery

Sherds of the chaff-tempered fabric from context 1759 had a substantial burnt residue on the internal surface which was sent for C14 dating alongside a sample of charred grain from the same context. The detailed results of this have already been presented but in general terms, the sample from the burnt residue indicated a date of late 7th-mid 8th century for this vessel.

Significance of the assemblage

This group is a rare example of a mid Saxon pottery assemblage from Worcestershire. The most significant and sizeable assemblage (>500 sherds) came from Upwich, Droitwich (Lentowicz 1997). Small groups of sherds of similar date are recorded from Aston Mill Farm, Kemerton (Evans 1990), Saxon's Lode Farm, Ripple (Blinkhorn 2008) and Copcut Lane, Droitwich (Derek Hurst pers comm).

In addition to the general rarity of such material in the region, the results of C14 dating along with the diagnostic sherds identified amongst this group makes the early medieval pottery from this site highly significant both locally and regionally.

Catalogue of the illustrated early medieval pottery (Fig 39)

1. Jar in grass-tempered ware (fabric 99), mid-late 7th century, Sunken Featured Building, context 1759
2. Jar in chaff-tempered ware (fabric 99), with heavily burnt residue, mid-late 7th century, Sunken Featured Building, context 1759
3. Straight-sided vessel in grass-tempered ware (fabric 99), mid-late 7th century, Sunken Featured Building, context 1759

Medieval and later

A total of 48 sherds of pottery were identified as dating from the 15th century onwards. All were small, abraded undiagnostic fragments from domestic vessel of fabrics commonly identified from sites within the region. Mostly these derived from topsoil and subsoil contexts and they are likely to have been incorporated into the soil as a result of agricultural activity.

Other ceramic material

Ceramic building material

A total of 76 fragments of building material ranging from Roman to modern in date were retrieved from the site. Of these, 26 were identified as Roman by fabric or as a result of coming from contexts of that period. The majority were undiagnostic and highly abraded but one could be identified as coming from an imbrex form (Enclosure B4, context 2571).

Remaining material was of medieval date onwards and included fifty fragments of flat roof tile of medieval/post-medieval and modern date and 28 bricks of post-medieval/modern date.

Oven material

A total of six fragments of domestic oven plates/platters were retrieved from the site. All were of Malvernian fabric (fabric 3.1) and of Roman date. Those from contexts 1132, 1267 and 1451 are within ditches of 3rd-4th century date associated with activity in and around Enclosure A, whilst the two fragments from the east side of Enclosure B2 (CG2600, context 2599) are thought to be of the earlier Roman period. Due to the fabric of this material being of a type

commonly used for the production of vessels in this area, it is highly possible that more oven material is present within the pottery assemblage but hasn't been identified as such, with only the obvious diagnostic fragments from platters having been extracted.

Not a huge amount is known about these objects other than that they are present on the majority of sites of Roman date within the county and appear to have been related to the cooking of food due to evidence of sooting and burning to the surfaces. In general, this takes the form of soot and carbonised deposits on the upper surface and burning on the underside – a pattern that has been noted on this type of object elsewhere (Cool 2006, 41). As seen with the group from this site, the majority of such plates date to the latter half of the period, although they are present in smaller number in assemblages of the late 1st century AD onwards.

Fired clay

A fairly substantial assemblage of 280 fragments of fired clay was retrieved from the site. The vast majority displayed grass and twig-like impressions in the surfaces and appeared to have been tempered with organic material.

It is not known exactly what this material was used for, although it is highly likely that it was structural. It is not inconceivable that some of it derived from an oven-type structure, associated with the plate/platters described above. Likewise, it would not be unreasonable to suggest that these fragments were used as daub in the superstructure of any buildings on the site but had become unintentionally fired, possibly as the result of a building catching fire.

Contexts which particularly stood out for having large amounts of this material coming from them were 3803 with 62 fragments and 1753 with 107 fragments. Both are securely Roman in date with 3803 being a pit of late 3rd-4th century date and 1753 being a linear feature stratigraphically dated to Romano-British pre-dating the construction of Enclosure A.

Metalwork

Copper Alloy

Personal objects

Copper alloy objects of note consisted of two brooches (contexts 409 and 2684), a fragment of a further brooch (context 1438), part of a *ligula* (context 524), two coins (from the top fill of enclosure ditch A) and a possible stud head (context 2703).

Both complete brooches were of early Roman date. The first (Enclosure B2, context 409) was identified as an Aucissa type dating to the 1st century AD (Hattatt 2000, 317; fig.176, no.833). The other (Enclosure B4, context 2684) was of a more unusual 'Birdlip' type (Hattatt 1989, 34; fig.14). Brooches of this latter type are thought to be imitating continental forms and are few and far between in Britain. Furthermore, there is a strong possibility that this brooch is actually made specifically of bronze due to the majority of those previously analysed being of this metal (Bayley and Butcher 2004, 148).

The remaining brooch (Track/drove CG 1589, context 1438) was extremely fragmentary consisting of only a small section of the bow. However, despite this moulded decoration in the

form of a zig-zag can be seen running down the length of the bow in 3 parallel lines and the top has been folded over to form the start of the hinge. Due to the fragmentary nature of this object, it has not been possible to determine an absolute identification of form but it does bear a strong resemblance to those of the Aucissa type, as seen in the complete example above (context 409).

The *ligula* fragment (Fig 40) was retrieved from the ditch forming the north side of Enclosure B2 (Evaluation context 524) of 2nd century date. Such objects are relatively rare finds in Worcestershire and even more so coming from a rural context with other recently found examples coming from sites within Worcester (cf. Edwards, Griffin and Dalwood 2002, 122; fig.11, no.21).

The remaining fragment appeared to be a stud head and once more came from a context of 1st-2nd century date (context 2703).

Coins

Two coins were retrieved from the site, both recorded as coming from the upper fill of the ditch defining Enclosure A. Both appeared to be of the same type, each being a nummus of the House of Constantine displaying two soldiers holding two standards on the reverse. Both had clear mint marks, one belonging to Trier and the other to Lyon. Both can be dated to the 4th century AD.

Iron

A total of 124 iron objects were retrieved from the site, all datable to the Roman period.

Hobnails

Hobnails formed a substantial group with 107 identified from 8 different contexts (1129, 1156, 1561, 2438, 2660, 2674, 2742 and 2744). It is not possible to ascertain how many shoes these hobnails represent due to their being spread across a number of contexts. However, depending on the complexity of the pattern formed by them and the size of shoe, it is possible that the 60 retrieved from context 2742 (part of Enclosure B3) came from the same shoe or pair of shoes, and likewise, the 30 from context 2660 (part of Enclosure B4) may also represent a single shoe.

Latch lifter

By far the most interesting iron object from the site was a latch lifter from the west side of Enclosure A (context 1354). This took a standard form with a flat handle with an eye at the end and a curved stem with a circular cross-section (Fig 42). Such objects were widely used across Britain from the late Iron Age and throughout the Roman period. A good parallel for the example from this site comes from Hod Hill, Dorset and is thought to date to the mid 1st century AD (Manning 1985, 89; plate 39, O19).

Knife

A highly corroded knife was retrieved from the base deposit within the early medieval Sunken Featured Building (context 1759). The object measured 11.5cm in length but was incomplete

with the end of the blade closest to the tip missing. Despite being incomplete, the knife could be identified as most resembling examples class as type 9 by Manning (*ibid*, p113 and fig.28). This type has the back of the knife falling through a concave curve to the tip, whilst the edge has a similar but flatter curve. The handle/tang is made in one piece with the blade, continuing the line of the back, with a pronounced step between it and the edge. This context also included a ring of unknown function measuring 6cm in diameter

Remaining ironwork consisted of 11 nail fragments and 4 unidentifiable fragments, all heavily corroded.

Lead

Two lead objects were retrieved from the site (contexts 2664 and 1636). The first, recovered from a Roman corndrier or oven (CG 1634: context 1636) was undiagnostic but very flat in profile, with one smooth surface. The most likely identification for this object is that of a pot repair.

The other consisted of a perforated disc (Enclosure B4, context 2664). No parallels for this object have been identified but it bears a striking resemblance in form to that commonly seen in ceramic spindle whorls. Certainly, the heavy nature of lead would lend itself to use as a weight. Date-wise, the object was associated with pottery which indicated a *terminus post quem* of mid-late 1st century for the context.

Slag

Thirty-seven pieces of iron slag were retrieved from the site and included smithing residues. Diagnostic pieces included a hearth bottom (context 2520).

The worked stone

Ruth Shaffrey

Excavations at Church Farm West produced three items of worked stone, all of which were probably used as querns. Two fragments were recovered from context 1490 (a fill within the south-west corner of Enclosure A) including a possible saddle quern fragment and a lower rotary quern fragment, both of Triassic sandstone. A highly worn rotary quern fragment of Old Red Sandstone was found in the boundary ditch defining Enclosure A (from context 1505).

The Triassic sandstone would have been locally available while the Old Red Sandstone was imported, but both stone types are typical of the area. The probable saddle quern is likely to be residual from earlier occupation on the site, especially given its generally worn condition. The Old Red Sandstone quern has been reused as a hone, which is a typical use for broken querns of this material as the coarse quartz matrix provides a good makeup for knife sharpening. Querns are typical finds on any Roman sites with a domestic element and they suggest occupation here.

Catalogue of the worked stone

1. Context 1490. Enclosure A: CG 1900. Probable lower rotary quern, edge fragment. Triassic sandstone. Curved edge surface with two convex faces. Measures 53mm thick.

2. Context 1490. Enclosure A: CG 1900. Possible saddle quern fragment. Triassic sandstone. Part of possible pecked surface.
3. Context 1505. Enclosure A: CG 1900. Lower rotary quern, reused as a hone. Old Red Sandstone. Fragment with roughly shaped lower surface and upper (grinding) surface worn very smooth. The grinding surface has extensive iron deposits that probably result from blade sharpening. No features or working of the original quern survive. Measures 27mm thick.

Other stone

Laura Griffin

Pot-boilers

A total of 129 heat-shattered pebbles (pot-boilers) were retrieved from the site, all but one coming from ditch contexts, although they were widely noted on site but not retained. The remaining recovered stone came from a layer (2625) but was too big to have been used inside a ceramic vessel and therefore may have either been used to heat water within a larger reciprocal such as a trough or within a feature cut into the ground itself. Concentrations of these pot-boiler stones are often present on settlements of Iron Age and early Roman date and form a common element of the general domestic assemblage.

Remaining stone was all identified as sandstone and thought to have been used as building material.

Other finds

Remaining finds were all of post-medieval or modern date and consisted of three clay pipe stems (contexts 139, 450 and 3302) and nineteen fragments of vessel glass (contexts 138, 139, 450, 452, 553 and unstratified).

Environmental analysis

Alan Clapham

The environmental evidence recovered is summarised in Tables 11-17.

A total of 19 samples were selected for full analysis from the assessment of the environmental samples collected from the 2008 and 2009 excavation seasons (Table 11). Four samples from features from Phase 3 (Bronze Age), seven samples from four features dated to Phase 4 (Iron Age), three from Phase 5 (Romano-British), two from Phase 6 (early medieval) and two from Phase 9 (undated) were analysed (Tables 12–16).

Overall, the preservation of the charred material was variable with the older material being more poorly preserved than the later material. Quantities of charred plant remains were also variable. The richest samples derived from the north side of a Late Iron Age enclosure, Enclosure B1 (CG 2244; contexts 2279 and 2285). Cereal remains, mostly chaff, were the commonest remain type, especially in the Iron Age contexts. Weed seeds in terms of taxa were well represented, again, especially in the Iron Age where large numbers were also recorded. Romano-British contexts produced moderate amounts of cereal and weed remains.

The Bronze Age contexts produced the fewest plant remains of the samples analysed. One early medieval context, the deposit on the floor of the Sunken Featured Building (context 1759) produced a wide range of charred plant remains.

Table 11: Samples identified for further processing

2008 excavation	2009 excavation
1016	2279
1017	2285 (x4)
1068	2414
1236	2758
1243	2760
1244	
1690	
1753	
1759	
1717	
1836	
Total = 19 samples	

Phase 3: Bronze Age

Six samples were analysed from this phase of occupation (Table 12). All samples were from pits with two separate samples taken from one of the contexts (1016). Overall few charred plant remains were recovered from the contexts.

Pit [1018]

Fill (1017)

This was a lower fill of a Beaker pit. Charred plant remains were few and far between. Cereals identified include full size and tail grains of hulled barley (*Hordeum vulgare*) and indeterminate cereal grain fragments. Weed seeds recovered were whole seeds and fragments of black bindweed (*Fallopia convolvulus*) and a single grain of an indeterminate grass.

Fill (1016)

This was the upper fill of the Beaker pit and charred plant remains were scarce in both samples taken. These included wheat grains which were identified as of a free-threshing variety. Whole grains and fragments of hulled barley were also identified along with indeterminate cereal grain fragments.

Weed seeds identified included buttercup (*Ranunculus acris/repens/bulbosus*), clover (*Trifolium* sp), pale persicaria (*Persicaria lapathifolia*), black bindweed, self heal (*Prunella vulgaris*), red bartsia (*Odontites vernus*) and a tuber of onion couch grass (*Arrhenatherum elatius* var *bulbosum*) and small grass grains.

Pit [1245]

Two contexts (1243) and (1244) were analysed from this pit. The upper fill (1243) contained very few charred plant and consisted of three fragments of indeterminate cereal grain fragments a cotyledon fragment of a vetch/pea (*Vicia/Lathyrus* sp) and six fragments of hazel nutshell (*Corylus avellana*). The lower fill (1244) also contained low numbers of charred plant remains. A glumed wheat (*Triticum* sp) grain and two fragments of indeterminate cereal grains were identified along with six fragments of hazel nutshell.

Pit [2413]

No cereal remains were identified from the primary fill (2414) of this pit. Weed seeds identified included a vetch/pea and a cleavers seed (*Galium aparine*). The commonest find was that of hazel nutshell fragments (24), it was noted that many of the fragments were elongated in shape, two fragments of possible hazel cotyledons were also found.

Key to Tables 12-17

Habitat
A= cultivated ground
B= disturbed ground
C= woodlands, hedgerows, scrub etc
D = grasslands, meadows and heathland
E = aquatic/wet habitats
F = cultivar

Table 12: Charred plant remains from Bronze Age (Phase 3) deposits

Latin name	Common name	Habitat	Pit 1018			Pit 1245		Pit 2413
			1016	1016	1017	1243	1244	2414
Charred								
<i>Triticum</i> sp (free-threshing) grain	free-threshing wheat	F	2					
<i>Triticum</i> sp grain	wheat	F					1	
<i>Hordeum vulgare</i> grain (hulled)	barley	F	2	2	5			
<i>Hordeum vulgare</i> grain fragments (hulled)	barley	F	1	4				
<i>Hordeum vulgare</i> tail grain (hulled)	barley	F		2	1			
Cereal sp indet grain (fragment)	cereal	F	13	6	5	3	2	
<i>Ranunculus acris/repens/bulbosus</i>	buttercup	CD	1					
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD						1
<i>Vicia/Lathyrus</i> sp (fragment)	vetch/pea	ABCD				1		
<i>Trifolium</i> sp	clover	ABD		1				
<i>Corylus avellana</i> shell fragment	hazelnut	C				6	6	24

Latin name	Common name	Habitat	Pit 1018			Pit 1245		Pit 2413
			1016	1016	1017	1243	1244	2414
cf <i>Corylus avellana</i> cotyledons (fragment)	hazelnut	C						2
<i>Persicaria lapathifolia</i>	pale persicaria	AB		1				
<i>Fallopia convolvulus</i>	black bindweed	AB	4	1	3			
<i>Fallopia convolvulus</i> fragment	black bindweed	AB	4	2	2			
<i>Galium aparine</i>	cleavers/goosefoot	ABC						1
<i>Prunella vulgaris</i>	selfheal	D	2					
<i>Odontites vernus</i>	red bartsia	ABD	2	1				
<i>Arrhenatherum elatius</i> var <i>bulbosum</i> tuber	onion couch	AB		1				
Poaceae sp indet grain (small)	grass	AF	1	1	1			

Phase 4: Iron Age

Seven samples from four Iron Age contexts were analysed (Table 13).

Pit [1237]

The primary fill (1236) of this pit was sampled and contained very few charred plant remains consisting of a single grain of wheat, and three grains of hulled barley. Fragments of indeterminate cereal grains were also recorded. No weed seeds were recovered from this context.

Enclosure B1: Context Group 2244

Four samples from three ditch fills (2279 and 2285) recorded within the ditch defining the north side and south-west corner (1836) of Enclosure B1 were analysed. These were the richest studied and the charred plant remains were well preserved permitting identification to species where possible.

Fill 2279/Cut 2282

This context was the uppermost fill of part of the enclosure ditch defining Enclosure B1 and was clearly associated with abandonment and possibly deliberate infilling of this disused feature.

Cereal remains were represented both by chaff remains and grain. The chaff remains included glume bases of emmer (*Triticum dicoccum*) and spelt (*Triticum spelta*) wheat. Fragments of upper parts of spelt glumes and indeterminate wheat were also recorded. Indeterminate wheat glume bases were also recorded. Spikelet forks of spelt and indeterminate wheat were present as were rachis fragments of emmer and indeterminate wheat. Grains of a glumed wheat, most likely a mixture of emmer and spelt were recorded but in smaller numbers than those of the chaff remains. Hulled barley grains were recorded in small quantities. Fragments of indeterminate cereal grains were noted.

Weed seeds identified included cabbage (*Brassica* sp), whole seeds and fragments of pale persicaria and black bindweed, sheep's sorrel (*Rumex acetosella*), and docks (*Rumex* sp). Common chickweed (*Stellaria media*), campion (*Silene* sp) and scentless mayweed (*Tripleurospermum inodorum*) were recorded. The commonest weed seed recorded was that of fat hen (*Chenopodium album*) with over 300 seeds. The second commonest seed was that of brome grass (*Bromus* sp) where 80 caryopses and over 1000 caryopsis fragments were counted.

Fill 2285

Two further samples <153> and <156> were taken and selected for analysis from a length within this distinct spread of charcoal rich material in this abandonment fill of the Enclosure B1 northern ditch to further examine this deposit and also see if there was any spatial variation present across the deposit.

There was a great deal of similarity between this context and the previous one [2279] with regards to taxa identified. The main difference being the greater number of remains identified.

Cereal chaff, especially wheat chaff of emmer and spelt and indeterminate wheat dominated the assemblage. Wheat awn fragments were also recorded in sample <156>. A greater number of barley rachis fragments were also recorded in <156> with 8 being identified as belonging to six-row barley. Cereal grains in the form of wheat and barley were recorded in low numbers but wheat grains were more common than barley. No free-threshing wheat grains were identified and it is assumed that the wheat grains are of emmer and spelt.

Weed seeds identified included vetch/pea, hazel nutshell fragments, pale persicaria and black bindweed. Sheep's sorrel, docks, campion, scentless mayweed, and narrow-fruited cornsalad (*Valerianella dentata*) were also recorded. As with [2279] the dominant taxa in this context were fat hen brome grass and small grasses.

Fill 1836/cut 1837

Fill 1836 was the middle fill within the ditch forming the south-west corner of the enclosure. Two spelt wheat glume bases along with indeterminate glume bases and rachis fragments were recorded from this context. Glumed wheat grains were identified and included whole grains, tail grains and fragments. Two grains of hulled barley were also recorded and a single grain of oat. It is not possible to determine if the oat grain is of a wild or cultivated species as the floret bases required for determination were not present.

Weed seeds identified included small nettle (*Urtica urens*), black bindweed, brome grass and small grasses.

Table 13: The charred plant remains from Iron Age (Phase 4) deposits

Latin name	Common name	Habitat	1236	1836	2279	2285	2285
Charred							
<i>Triticum dicoccum</i> glume base	emmer wheat	F			14	188	1544
<i>Triticum dicoccum</i> rachis	emmer wheat	F			1		
<i>Triticum dicoccum</i> spikelet fork	emmer wheat	F				37	292
<i>Triticum spelta</i> glume base	spelt wheat	F		2	74	280	1168
<i>Triticum spelta</i> glume fragment	spelt wheat	F			32		88
<i>Triticum spelta</i> spikelet fork	spelt wheat	F			3	18	56
<i>Triticum</i> sp grain	wheat	F	1	18	49	35	60
<i>Triticum</i> sp grain fragment	wheat	F		16	6	31	28
<i>Triticum</i> sp tail grain	wheat	F		1	6	1	
<i>Triticum</i> sp glume base	wheat	F		1	139	1014	9048
<i>Triticum</i> sp glume fragment	wheat	F			98		
<i>Triticum</i> sp rachis	wheat	F			25	46	608
<i>Triticum</i> sp spikelet fork	wheat	F		1	13	140	820
<i>Triticum</i> sp awn fragments	wheat	F					108
<i>Hordeum vulgare</i> grain (hulled)	barley	F	3	2	4	3	4
<i>Hordeum vulgare</i> tail grain (hulled)	barley	F			2	2	
<i>Hordeum vulgare</i> rachis	barley	F				12	332
<i>Hordeum vulgare</i> rachis (6-row)	barley	F					8
Cereal sp indet grain (fragment)	cereal	F	7	24	86	3	320
Cereal sp indet culm node	cereal	F			1		
Cereal sp indet embryo shoot	cereal	F			4		4
<i>Avena</i> sp grain	oat	AF		1			
<i>Avena</i> sp awn fragment	oat	AF				1	
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD				2	
<i>Urtica urens</i>	small nettle	AB		2			
<i>Corylus avellana</i> shell fragment	hazelnut	C				8	4
<i>Brassica</i> sp	cabbages	ABDF			1		
<i>Persicaria lapathifolia</i>	pale persicaria	AB			7	6	
<i>Persicaria lapathifolia</i> (fragment)	pale persicaria	AB			1		
<i>Fallopia convolvulus</i>	black bindweed	AB		2	12	17	8
<i>Fallopia convolvulus</i> fragment	black bindweed	AB		1	6	9	
<i>Rumex acetosella</i>	sheep's sorrel	ABD			7	3	16
<i>Rumex</i> sp	dock	ABCD			12	7	8
<i>Stellaria media</i>	common chickweed	AB			1	1	
<i>Silene</i> sp	campion	AB			7		4
<i>Chenopodium album</i>	fat hen	AB			300+	145	464
<i>Chenopodium album</i> (fragment)	fat hen	AB			1000+	53	176
<i>Tripleurospermum inodorum</i>	scentless mayweed	AB			15	2	16

Latin name	Common name	Habitat	1236	1836	2279	2285	2285
<i>Valerianella dentata</i>	narrow-fruited cornsalad	AB				1	
<i>Carex</i> sp (2-sided) nutlets	sedge	CDE			5		
<i>Carex</i> sp (3-sided) nutlets	sedge	CDE			1		
<i>Bromus</i> sp grain	brome grass	AF		7	80	25	64
<i>Bromus</i> sp grain (fragment)	brome grass	AF		30	1000+	191	400
Poaceae sp indet grain (small)	grass	AF		6	120	75	100

Phase 5: Romano-British

Four contexts were analysed from the Romano-British occupation of the site (Table 14).

Ditch: Context Group 1754 (Context 1753)

Context 1753 was the fill of short length of Roman dated ditch [1754] located towards the north side of Enclosure A but which could not be associated with any certainty with either the activity in that enclosure or phases of earlier field systems. Cereal remains were represented by chaff remains (glumes and rachis fragments) of emmer wheat as well fully grown and tail grains of a glumed wheat, which is most likely to be emmer. Indeterminate wheat glume bases and spikelet forks were also recorded. A few hulled barley grains and grain fragments were also found. The commonest cereal remain was that of fragments of indeterminate cereal grains.

Weed seeds included vetch/pea, field pansy (*Viola arvensis*), black bindweed, cleavers, and small grass caryopses. The commonest weed finds were of fat hen and brome grass.

Pit [2761]

Two of the fills within this 2nd century pit associated with Enclosure B2 or B3 were sampled and analysed. The first, the primary fill (2760), was dominated by glumed wheat grains, tail grain and grain fragments. Cereal chaff was recorded in low number but did include 2 emmer wheat glume bases. Hulled barley grains were also present along with oat grains. Fat hen again dominated the weed assemblage other taxa recorded include vetch/pea, pale persicaria, black bindweed, sheep's sorrel, docks and small grasses.

Context 2758 was the uppermost fill of this pit. Emmer glume bases and spikelet forks were recorded in low numbers. The dominant cereal remains in this context were glumed wheat grains, tail grains and grain fragments. Barley was also identified including grain, tail grain, fragments and a rachis fragment. Oat grains and fragments were also found. Weed seeds were dominated by seeds and seed fragments of fat hen but other weeds recorded in lower numbers included vetch/pea cotyledon fragments. Hazel nutshell fragments, violet/pansy (*Viola* sp), pale persicaria, black bindweed, sheep's sorrel, and brome grass.

Table 14: The charred plant remains from Romano-British (Phase 5) deposits

Latin name	Common name	Habitat	1753	2758	2760
Charred					
<i>Triticum dicoccum</i> glume base	emmer wheat	F	8	3	2
<i>Triticum dicoccum</i> spikelet fork	emmer wheat	F	3	1	
<i>Triticum spelta</i> glume base	spelt wheat	F			
<i>Triticum</i> sp grain	wheat	F	14	75	32
<i>Triticum</i> sp grain fragment	wheat	F	23	19	5
<i>Triticum</i> sp tail grain	wheat	F	3	2	2
<i>Triticum</i> sp glume base	wheat	F	6		1
<i>Triticum</i> sp spikelet fork	wheat	F	3		1
<i>Hordeum vulgare</i> grain (hulled)	barley	F	3	13	12
<i>Hordeum vulgare</i> grain fragments (hulled)	barley	F		2	
<i>Hordeum vulgare</i> tail grain (hulled)	barley	F		3	
<i>Hordeum vulgare</i> rachis	barley	F		1	
Cereal sp indet grain (fragment)	cereal	F	90	150	49
<i>Avena</i> sp grain	oat	AF		8	5
<i>Avena</i> sp grain (fragment)	oat	AF		10	5
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD	2		1
<i>Vicia/Lathyrus</i> sp (fragment)	vetch/pea	ABCD		3	
<i>Corylus avellana</i> shell fragment	hazelnut	C		4	
<i>Viola arvensis</i>	field pansy	AB	1		
<i>Viola</i> sp	violet	DF		1	
<i>Persicaria lapathifolia</i>	pale persicaria	AB		19	6
<i>Fallopia convolvulus</i>	black bindweed	AB	3	4	1
<i>Fallopia convolvulus</i> fragment	black bindweed	AB			
<i>Rumex acetosella</i>	sheep's sorrel	ABD		11	3
<i>Rumex</i> sp	dock	ABCD			2
<i>Chenopodium album</i>	fat hen	AB	58	94	87
<i>Chenopodium album</i> (fragment)	fat hen	AB		36	18
<i>Galium aparine</i>	cleavers/ goosefoot	ABC	1		
<i>Bromus</i> sp grain	brome grass	AF	13		
<i>Bromus</i> sp grain (fragment)	brome grass	AF	38		
Poaceae sp indet grain (small)	grass	AF	9	14	2
Poaceae sp indet culm node	grasses	AF		1	
Poaceae sp indet stem frags	grasses	ABCD		1	

Phase 6: Early medieval. Sunken Featured Building (1691)

Two contexts were analysed from deposits associated with the sunken featured building, (contexts 1690 and 1751; Table 15).

Context 1690 filled the majority of the cut for the sunken featured building and represents either deliberate infilling or silting of the structure following disuse. Very few charred plant remains were recovered from this context. The assemblage consisted of single finds of bread wheat (*Triticum aestivum*) rachis fragment, an indeterminate cereal grain fragment and an oat grain. No weed seeds were present in this sample.

Context 1759 was a burnt layer spread across the base of this building and appears to represent occupation debris associated with its use. Plant remains were more common in this context and the assemblage consisted of free-threshing wheat grains and tail grains. Hulled barley grains and grain fragments were also present as well as three grains of rye (*Secale cereale*). Oat grains and grain fragments were also recorded.

Weed seeds in the assemblage consisted of vetch/pea, pale persicaria, black bindweed, docks, fat hen, cleavers, nipplewort (*Lapsana communis*), bristle club-rush, sedges (*Carex* spp), dandel (*Lolium temulentum*), small grasses and grass culm nodes.

Fragments of what appeared to be food remains were also noted from this sample and it is possible that these are associated with the pot sherds recovered from this context which had charred food residue attached.

Table 15: The charred plant remains from post Roman/Anglo-Saxon (Phase 6) deposits

Latin name	Common name	Habitat	1690	1759
Charred				
<i>Triticum aestivum</i> rachis	bread wheat	F	1	
<i>Triticum</i> sp (free-threshing) grain	free-threshing wheat	F		23
<i>Triticum</i> sp (free-threshing) grain fragment	free-threshing wheat	F		18
<i>Triticum</i> sp (free-threshing) tail grain	free-threshing wheat	F		4
<i>Hordeum vulgare</i> grain (hulled)	barley	F		9
<i>Hordeum vulgare</i> grain fragments (hulled)	barley	F		8
<i>Secale cereale</i> grain	rye	F		3
Cereal sp indet grain (fragment)	cereal	F	1	
Cereal sp indet embryo shoot	cereal	F		3
<i>Avena</i> sp grain	oat	AF	1	10
<i>Avena</i> sp grain (fragment)	oat	AF		14
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD		6
<i>Vicia/Lathyrus</i> sp (fragment)	vetch/pea	ABCD		10
<i>Persicaria lapathifolia</i>	pale persicaria	AB		1
<i>Fallopia convolvulus</i>	black bindweed	AB		2
<i>Rumex</i> sp	dock	ABCD		9

Latin name	Common name	Habitat	1690	1759
<i>Chenopodium album</i>	fat hen	AB		7
<i>Chenopodium album</i> (fragment)	fat hen	AB		2
<i>Galium aparine</i>	cleavers/goosefoot	ABC		2
<i>Lapsana communis</i>	nipplewort	BCD		1
<i>Isolepis setacea</i>	bristle club-rush	E		1
<i>Carex</i> sp (2-sided) nutlets	sedge	CDE		4
<i>Lolium cf temulentum</i> grain	darnel	AB		1
<i>Bromus</i> sp grain (fragment)	brome grass	AF		6
Poaceae sp indet grain (small)	grass	AF		35
Poaceae sp indet culm node	grasses	AF		9

Phase 9: Undated

Two further contexts were analysed. Both derived from pits which remain undated, although one (1771) is liable to be associated with Roman activity due to its location. The results are shown in Table 16.

Pit 1069

The primary fill (1068) of this pit was comparatively rich in charred plant remains. Cereal remains were dominated by free-threshing wheat grains most likely bread wheat. Hulled barley and rye grains were also present as were oats.

Weed seeds consisted of vetch/pea, melilot/medick (*Melilotus/Medicago* sp), clover, pale persicaria, black bindweed, dock, corn spurrey (*Spergula arvensis*), fat hen, scentless mayweed, brome grass and small grasses.

Pit 1770

The primary fill (1771) of this pit located within the area of Enclosure D contained few charred plant remains and consisted of indeterminate wheat grains, indeterminate cereal grain fragments, fat hen, brome grass and small grasses. It is undated but its location suggests it is liable to be of later Roman date.

Discussion

Charred plants remains were present in large enough quantities to enable some discussion on the crops grown (cereals) and associated weeds at Church Farm West through time. Apart from cereals, no other cultivated food plants were identified from any of the phases of occupation of Church Farm West.

Table 16: The charred plant remains from undated deposits

Latin name	Common name	Habitat	1068	1771
Charred				
<i>Triticum</i> sp (free-threshing) grain	free-threshing wheat	F	20	
<i>Triticum</i> sp (free-threshing) grain fragment	free-threshing wheat	F	29	
<i>Triticum</i> sp (free-threshing) tail grain	free-threshing wheat	F	10	
<i>Triticum</i> sp grain	wheat	F		3
<i>Triticum</i> sp rachis	wheat	F	1	
<i>Hordeum vulgare</i> grain (hulled)	barley	F	7	
<i>Hordeum vulgare</i> grain fragments (hulled)	barley	F	4	
<i>Hordeum vulgare</i> tail grain (hulled)	barley	F	2	
<i>Secale cereale</i> grain	rye	F	2	
<i>Secale cereale</i> grain (fragment)	rye	F	1	
Cereal sp indet grain (fragment)	cereal	F	52	16
<i>Avena</i> sp grain (fragment)	oat	AF	4	
<i>Avena</i> sp awn fragment	oat	AF	1	
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD	2	
<i>Melilotus/Medicago</i> sp	melilot/medick	ABD	1	
<i>Trifolium</i> sp	clover	ABD	1	
<i>Persicaria lapathifolia</i>	pale persicaria	AB	3	
<i>Persicaria lapathifolia</i> (fragment)	pale persicaria	AB	1	
<i>Fallopia convolvulus</i>	black bindweed	AB	3	
<i>Rumex</i> sp	dock	ABCD	3	
<i>Spergula arvensis</i>	corn spurrey	AD	2	
<i>Chenopodium album</i>	fat hen	AB		2
<i>Tripleurospermum inodorum</i>	scentless mayweed	AB	1	
<i>Bromus</i> sp grain	brome grass	AF		4
<i>Bromus</i> sp grain (fragment)	brome grass	AF		4
Poaceae sp indet grain (small)	grass	AF	1	1

Cereal cultivation

Phase 3: Bronze Age

There is very little evidence for cereal cultivation in this phase of occupation at Church Farm West. There are a few hulled barley and wheat grains but due to the low numbers it is possible that they represent background flora rather than deliberate depositions.

Phase 4: Iron Age

From this phase there is greater evidence for cereal cultivation if not on the site but locally. The evidence is especially strong from the uppermost fill within the northern ditch of Enclosure B1 (CG 2244: contexts 2279 and 2285).

From the copious cereal chaff remains (Table 13 and Charts 1-3) it appears that both emmer and spelt wheat were cultivated in similar proportions along with barley. The presence of oats in (1836) may suggest that it was also cultivated, but its presence as a weed cannot be ruled out.

Phase 5: Romano-British

It appears from the results (Table 14) that wheat and barley were the main cultivated cereals but unusually for this period emmer wheat is the commonest wheat. There is a possibility that oats may well have been cultivated as well.

Phase 6: Early medieval

Wheat and hulled barley are still being cultivated but there are several changes during this period. The wheat changes from hulled wheat to free-threshing based on grain morphology. It is most likely that the wheat is bread wheat rather than rivet wheat (*Triticum turgidum*). Other cereals appear for the first time, especially rye and it is most likely that oats are being cultivated as well.

Undated

The presence of free-threshing wheat grains in context 1068, along with hulled barley and rye grains suggests that this context dates to the post Roman/Anglo-Saxon. The lack of cereal remains or any other remains within context 1771 suggests that the date of this context remains unknown.

Weeds

From Tables 12-17 it can be seen that the weed flora for this site is very limited with a total of 32 taxa from all phases or occupation. Four taxa occur in all five phases, these are vetch/pea, pale persicaria, black bindweed and small grasses. Three other taxa occur in four of the phases and include docks, fat hen and brome grass. Hazel nutshell fragments occur in the first three phases of occupation.

Phase 3: Bronze Age

Eleven weed taxa were identified from this period and included buttercup, vetch/pea, clover, hazel nutshell, pale persicaria, black bindweed, cleavers, selfheal, red bartsia, onion couch and small grass seeds. The presence of selfheal may suggest the presence of grassland or may represent the field edge.

Table 17: Presence/absence of weed taxa in the occupation phases

Latin name	Common name	Habitat	Bronze Age	Iron Age	Romano-British	Post Roman/ Anglo-Saxon	Undated
Charred							
<i>Ranunculus acris/repens/bulbosus</i>	buttercup	CD	+				
<i>Vicia/Lathyrus</i> sp	vetch/pea	ABCD	+	+	+	+	+
<i>Melilotus/Medicago</i> sp	melilot/medick	ABD					+
<i>Trifolium</i> sp	clover	ABD	+				+
<i>Urtica urens</i>	small nettle	AB		+	+		
<i>Corylus avellana</i> shell fragment	hazelnut	C	+	+	+		
<i>Viola arvensis</i>	field pansy	AB			+		
<i>Viola</i> sp	violet	DF			+		
<i>Brassica</i> sp	cabbages	ABDF		+			
<i>Persicaria lapathifolia</i>	pale persicaria	AB	+	+	+	+	+
<i>Fallopia convolvulus</i>	black bindweed	AB	+	+	+	+	+
<i>Rumex acetosella</i>	sheep's sorrel	ABD		+	+		
<i>Rumex</i> sp	dock	ABCD		+	+	+	+
<i>Stellaria media</i>	common chickweed	AB		+			
<i>Spergula arvensis</i>	corn spurrey	AD					+
<i>Silene</i> sp	campion	AB		+	+		
<i>Chenopodium album</i>	fat hen	AB		+	+	+	+
<i>Galium aparine</i>	cleavers/goosefoot	ABC	+		+	+	
<i>Prunella vulgaris</i>	selfheal	D	+				
<i>Odontites vernus</i>	red bartsia	ABD	+				
<i>Lapsana communis</i>	nipplewort	BCD				+	
<i>Tripleurospermum inodorum</i>	scentless mayweed	AB		+			+
<i>Valerianella dentata</i>	narrow-fruited cornsalad	AB		+			
<i>Isolepis setacea</i>	bristle club-rush	E				+	
<i>Carex</i> sp (2-sided) nutlets	sedge	CDE		+		+	
<i>Carex</i> sp (3-sided) nutlets	sedge	CDE		+			
<i>Lolium cf temulentum</i> grain	darnel	AB				+	
<i>Arrhenatherum elatius</i> var <i>bulbosum</i> tuber	onion couch	AB	+				
<i>Bromus</i> sp grain	brome grass	AF		+	+	+	+
Poaceae sp indet grain (small)	grass	AF	+	+	+	+	+
Total			11	17	14	12	11

Phase 4: Iron Age

This period had the greatest number of weed taxa, (17 examples) of all the phases of occupation at this site. The majority of the weeds can be found in open or arable environments and therefore are most likely to be associated with the cereal crops. Some of the weeds are climbers, such as vetch/pea, black bindweed whilst others are tall weeds such as pale persicaria, oat and brome grass. Others are low growing weeds such as small nettle and sheep's sorrel. This suggests that the crops may have been harvested by uprooting.

Phase 5: Romano-British

A total of fourteen taxa were recorded from the three contexts analysed and again the majority of the weeds can be deemed arable weeds and therefore most likely associated with the crops.

Phase 6: Early medieval

Twelve weed taxa were recorded from deposits associated with the sunken featured building. Again the majority can be associated with crops. Two taxa, bristle club-rush and sedge are usually found in damp/waterlogged conditions, which suggest that the soils where the crops were grown were seasonally water saturated.

Undated

The eleven weed taxa identified from this phase of occupation are all usually associated with cereal cultivation.

Non-cultivated food plants

The presence of hazel nutshell in the Iron Age, Romano-British and especially the Bronze Age contexts from this site suggests that the mainly cereal based diet was supplemented with wild foods.

Evidence for economic activity

The presence of large numbers of chaff remains especially in the Iron Age deposits provides an opportunity to explore the agricultural activity within the area.

During the Bronze Age there is little evidence for cereal cultivation and therefore crop processing, it is only during the Iron Age that any substantial evidence for agricultural activity i.e. crop processing appears (Table 13 and Charts 1-3). The bulk of the evidence comes from the fills (2279 and 2285) from one of the ditches (CG 2244) defining Enclosure B1. The presence of cereal remains, especially chaff and weed seeds suggests that crop processing waste had been dumped into the ditch either during its final phase of use or more probably following abandonment.

The presence of climbing/scrambling weeds such as vetch/pea and black bindweed and low growing weeds such as scentless mayweed, and sheep's sorrel may suggest that the crop was harvested by uprooting, which may explain why the tall non-climbing weeds such as fat hen, oats and brome grass were also present.

The presence of sheep's sorrel suggests that lighter, sandier soils were being cultivated which suggests that the crops from this period were cultivated locally as sandy soils dominate at Church Farm West.

The dominance of cereal chaff and weed seeds in the samples suggests that the assemblages represent the final stages of crop processing where the grain is cleaned from similar sized weed seeds (such as brome grass and black bindweed) and chaff from which the grain has been released during parching and pounding. The presence of large numbers of fat hen of which the seed is usually classified as small may be misleading as it was harvested prior to ripening and therefore still enclosed within the persistent tepals which would make the seed of a similar diameter to that of a cereal grain. This is carried out before the cereal is processed for consumption and suggests that the stored crop was processed piecemeal as required.

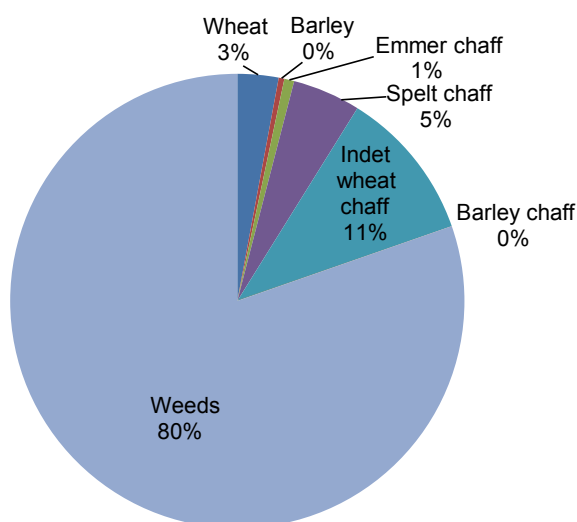


Chart 1: The composition of the charred plant assemblage from context 2279 (CG 2244)

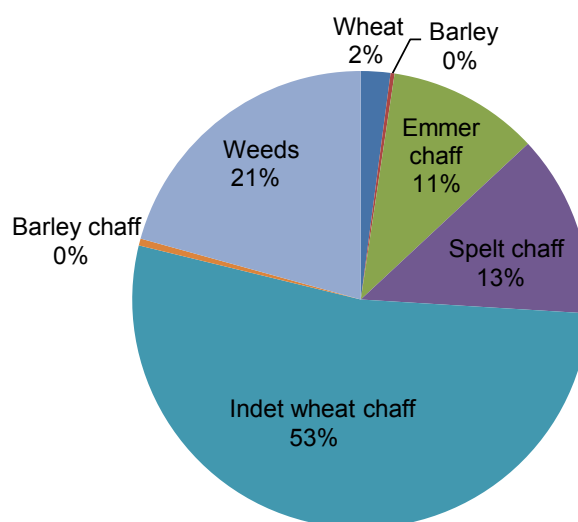


Chart 2: The composition of the charred plant assemblage from context 2285 (Sample 153; CG 2244)

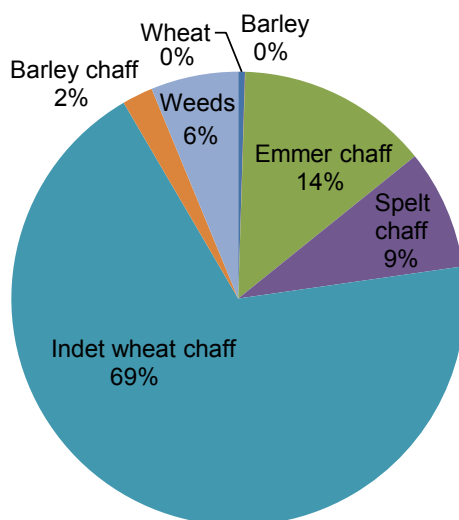


Chart 3: The composition of the charred plant assemblage from context 2285 (Sample 156; CG 2244)

The presence of high numbers of chaff suggests that the cereals were originally stored as semi-cleaned spikelets, although there appears from the archaeological evidence any remains of possible storage facilities, unlike those found at Clifton (Clapham and Buckland 2011). The charred plant assemblages from possible storage pits are rather poor and either suggests that these were cleaned out after use or used as rubbish pits.

The presence of some barley chaff suggests that the crops may have been grown together as a maslin, although it is possible that the two crops were grown and processed separately and then the crop waste from both was combined and then dumped into the ditch.

Enclosure B1: Spatial and sample variation

The reasons for taking different samples from the section of the north ditch of Enclosure B1 was to see if there was any spatial variation within the ditch and the reason for taking different samples from the same context was to demonstrate within context variation.

Charts 1-3 show the composition of the three samples taken from the uppermost fills of the north side ditch defining Enclosure B1 (CG 2244). Within the first (context 2279) the charred plant assemblage is composed of small amounts of wheat and barley grains (the number of barley grains barely register here) with 1% emmer chaff, 5% spelt chaff and 11% indeterminate wheat chaff and 80% weeds. In the second (context 2285), sample <153> consists of 2% wheat grains (again the number of barley grains is negligible), 11% emmer chaff, 13% spelt chaff, 53% indeterminate chaff and 21% weeds. Whilst sample <156> (also from 2285) consists of very low numbers of wheat and barley grains, and 94% of cereal chaff (14% emmer, 9% spelt, 69% indeterminate wheat and 2% barley) and only 6% weeds.

The major difference between context 2279 and the two samples from 2285 is that 2279 is dominated by weed seeds whilst 2285 is dominated by chaff. Although all three assemblages represent crop processing activities they may represent two different final stages. The two samples from 2285 may show the initial stages of final cleaning where the material is put through the sieves whilst the assemblage from 2279 may represent the final cleaning of the grain such as hand cleaning of the large weeds prior to food production. In 2279 the greater number of seeds is of brome grass which is of a similar size to that of cereal grain and would therefore require hand cleaning. The presence of large numbers of fat hen seeds may suggest that two stages of processing may have been mixed before dumping.

Sample variation

From Charts 1-3 it is possible to see the differences between the two samples while both are dominated by wheat chaff the major difference is the proportion of weeds in each sample – 21% in <153> and only 6% in <156>. This difference may seem large but it may well be a reflection on the number of charred plant remains recovered from the original samples and with more plant remains being recorded from <156> there is a greater opportunity for the rarer elements to be recognised.

Overall, the variation between the samples can be regarded as natural variation and that they are basically similar in composition.

Overview

Evidence for crop cultivation at the site begins with the quantities present in the Beaker pit (1018) that also produced the richest material assemblage; however, the quantities are sparse. Strong evidence of crop cultivation emerges at Church Farm West during the Iron Age, continuing into the Romano-British and post Roman/Anglo-Saxon period occupation phases. In comparison with other sites of these dates in the area there appear to be some anomalies especially in the Iron Age and Romano-British periods.

Generally, other major Iron Age sites within Worcestershire, for example those at Clifton and Ryall Quarry, have produced large amounts of charred plant remains. This is the case here as well as the three samples from the Iron Age ditch enclosure B1 produced large amounts of plant remains. What appears to be different are the activities represented.

At Iron Age Clifton the large number of four-post structures produced cereal remains dominated by spelt wheat (Clapham and Buckland 2011) whilst at Ryall Quarry (Pearson 2008), large quantities of grain were found in several pits. Of the four contexts taken to full analysis, emmer and spelt were present in equal quantities. Hulled barley was also identified but did not form a significant proportion of the cereal remains. The identification of the different glumed wheats was based on grain morphology rather than on chaff identification which is more reliable but as preservation was good it is most likely that the identifications can be held to be reliable. Few weed seeds were recovered with these samples and were dominated by brome grass which is similar to those samples from the Iron Age at Church Farm West. At Ryall Quarry and Clifton it appears that the plant remains in the Iron Age represent storage of processed and cleaned grain while the assemblages at Church Farm West indicate the processing of the stored material prior to consumption.

A single context (1759) was analysed from a Sunken Featured Building. Such buildings are usually associated with Anglo-Saxon settlement sites and consist of a pit overlain by a wooden floor and surrounded by a post structure constructed with daub and wattle and usually with a thatch roof. They usually have a hearth present in the centre of the structure and it is often thought that these features could provide an insight into Anglo-Saxon life. The charred plant remains found within these structures are usually interpreted as the burning of material that has slipped between the wooden floor planks prior to the destruction of the building. Sunken Featured Buildings have been excavated locally including Ryall Quarry (Barber and Watts 2008). Unfortunately the charred plant assemblages from these features proved to be poor in charred plant remains.

The most well known sunken featured buildings are the reconstructed ones at West Stow, Suffolk. These are based on excavations in the 1980s (West 1985) and charred plant remains were preserved and analysed (Murphy 1985). Three samples from these structures were studied with one producing a rich and diverse assemblage and the other two a more limited flora. The cereals consisted of wheat, barley and rye, with wheat being the commonest. The identification of a spelt wheat spikelet fork suggests that the wheat was of this type. This differs from Church Farm West as the grains were identified as being free-threshing most likely of bread wheat.

The weed flora at West Stow was far greater in terms of taxa present than Church Farm West although there were some common elements.

The remains of what appeared to be fragments of food remains were also found in this feature. Food residues were found on the pot sherds recovered from this feature and therefore it is a possibility that these fragments represent the rest of the pot contents before destruction.

Overall, it appears that Church Farm West especially in the Iron Age fits with the local pattern such as that at Ryall Quarry with the cultivation of both emmer and spelt wheat. But this does not appear to agree with the finds at Clifton Quarry which was primarily concerned with the cultivation and storage of spelt wheat. The remains from Ryall Quarry represent storage products but those here are the remains of crop processing. The evidence for grain storage at Top Barn appears to be absent, but this is felt likely to relate to site function which may have dictated that storage was not required.

Evidence for cereal cultivation in the Bronze Age is limited, the key pit assemblage (from 1018) being dominated by hazel nutshell fragments. Hazel nutshell fragments are also recorded in the Iron Age and Romano-British occupation of the site suggests that wild food sources were used to supplement the diet.

The charred assemblage from the Anglo-Saxon sunken featured building shows that bread wheat, barley and rye were the cultivated cereals. This appears to be similar to the charred assemblages found within similar structures at West Stow, the only difference being that at West Stow the wheat cultivated was most likely spelt.

Animal bone

Ian Baxter

A total of 117 animal bone fragments could be identified to species or broader taxonomic category. This includes three modern partial sheep skeletons comprising a total of 83 fragments (Table 18). Most of the animal bones were recovered by hand collection but a few were derived from the coarse residues of environmental samples. None of the cremated (calcined) bone could be identified due to lack of diagnostic elements, indeed it was not possible to determine if these remains originated from animal or human bones.

The only taxa present in the assemblage are cattle and sheep/goat. Most of the ancient material came from Roman features. The three modern sheep skeletons, comprising a hornless adult and two sub-adults, are better preserved and a different colour to the rest of the animal bones.

Table 18: Number of mammal bones identified (NISP)

Taxon	Phase 5 Romano- British	Phase 6 Post-Roman/ Early Medieval	Phase 8 Post-Medieval/ Modern	Phase 9 Undated	Total
Cattle (<i>Bos f. domestic</i>)	18	4	–	–	22
Sheep/Goat (<i>Ovis/Capra f. domestic</i>)	2	–	831	9	94
Small/Medium Mammal	1	–	–	–	1
Total	21	4	83	9	117

Assessment of the impact of arable cultivation

Robin Jackson

An important element of the project from the outset was the investigation and assessment of the impact of arable cultivation on deposits at the site, most notably from the combination of regular ploughing and associated soil erosion. This was investigated and assessed during the evaluation stages through the following:

- desk-based analysis of the changing survival and condition of excavated archaeological deposits in the area through time;
- consideration of the arable history of the site;
- consideration of abrasion and breakage within the fieldwalking assemblages;
- the hand-excavation of test pits to measure soil profiles and recover material culture from within the ploughsoil;
- comparison of ploughsoil assemblages from stratified material recovered during evaluation;
- recording of plough scoring in evaluation trenches; and
- trialling of a soil erosion and arable impact risk assessment approach being devised by Oxford Archaeology on behalf of Natural England (COSMIC).

Desk-based analysis included an interview with the landowners to establish the cultivation history of the site from around 1945 to present day, whilst 19th century map evidence and fieldnames suggest the land was once under cultivation as a pear orchard.

Prior to 1945, the land was utilised as haymeadow, but was later ploughed between 1945 and 1955 by the current farmer's grandfather as part of a concerted post-war effort to bring productive land into arable cultivation. The land has been under annual cultivation ever since with established grass leys now being a feature of the rotation on this land. Cultivation in the years prior to excavation comprised a mixed vegetable and arable cropping regime, all spring planted with a cereal break crop. Vegetables such as onions, beet and sunflowers usually required inversion ploughing to a depth of 0.15 to 0.18m, while potatoes required a depth of 0.18 to 0.21m. The problems caused by the formation of a firm 'pan' deposit, probably resulting from compaction caused by farm machinery during cropping (especially when ground conditions are wet), are addressed by breaking up the 'pan' every two years using a three-legged subsoiler with 'lift and drop' wings to a depth of 0.20 to 0.26m. Subsoiling was not confined to tramlines, but carried out in both directions across the field. Cultivation was noted as running down the slope (which would contribute to soil movement) rather than across the slope.

This information along with physical characteristics of the site (soil type, topography and rainfall) was used during the evaluation in conjunction with a risk assessment model being devised at the time of the evaluation by Oxford Archaeology on behalf of DEFRA (Oxford Archaeology 2002). Application of the assessment model identified a high risk of plough damage on the top, shoulder and slopes of the site and but for subsequent work and the onset of quarrying would have indicated a likely or very likely need to consider specific management recommendations for this site in order to protect surviving deposits.

Results from the subsequent fieldwalking survey supported the assessment model producing a high level of heavily abraded material, as was also evident in a number of hand-excavated

test pits in which abraded material was present through the ploughsoil (this contrasted with the relatively unabraded material recovered from subsequently excavated features across the site).

These results of the preliminary assessments were borne out by the results of both the evaluation trenching and subsequent excavation. Evidence of the agricultural impact on the site was widely evident, most commonly in the form of narrow, regularly spaced plough/subsoiling scars approximately 8mm in width and between 8 and 12mm in depth (Fig 42). In certain cases such damage had occurred over a more extensive area with broader plough scars or possible furrow bases extant in several trenches. Their impact was most noticeable in the central part of the site, especially along the west facing crest of a ridge. Here the upper fills of features had clearly been disturbed. Possibly the most clear evidence of the impact of plough damage was provided during the evaluation by the remains of an Iron Age jar set upright in a pit. The uppermost part of this vessel had been truncated and a linear plough scar (or subsoiler scar), containing sherds of pot, ran south-east from the surviving base of the vessel providing certain evidence of plough damage (Fig 17); the sherds having been broken from a vessel and dragged from their original position along the scar.

Across the site the effects of soil erosion (as opposed to plough damage) were less pronounced and were less easy to link directly to any specific archaeological damage. However, a substantial build up of colluvium within the evaluation trenches located at the lower lying eastern extents of the site (which were excluded from quarrying and therefore excavation) clearly indicated that such factors had indeed impacted on the site. Notably, in Evaluation Trench 14 (see Fig 4 for location) a sherd of Romano-British pottery was recovered from the colluvium at a depth of approximately 1.10m below the present ground level, providing a *terminus post quem* of Romano-British for the colluvial build up (ie deposition has occurred from and since the Romano-British period). In addition, high levels of gravel noted in samples taken from the hand-excavated Test pits indicated that high levels of natural gravel and sand had been incorporated into the ploughsoil. As such it is a reasonable assumption that soil erosion has also had a substantial, incremental impact on the level of preservation of any archaeological remains through the steady but widespread reduction of the protective ploughsoil/subsoil present.

The site provides a rare example of one which has from the outset included an element of assessment on the impact of truncation and erosion of deposits through arable cultivation. This has included desk-based modelling, evaluation and subsequent large-scale excavation and as a result provides an important case study where a theoretical model has been applied and evaluated in the field and where the resultant large-scale excavation has enabled the predictions of the assessment to be verified. Such opportunities rarely arise and the results of this element of the project therefore provide an important contribution to ongoing research into the impact of arable cultivation on archaeological sites.

Discussion

Jon Webster and Robin Jackson

Investigations at Church Farm West have provided an important opportunity to study a known complex landscape of cropmarks in its entirety which is not only a rare opportunity in the County but also in the wider region. This site has been studied over 40 years using a number of different intrusive and non-invasive methods culminating in the excavation reported

here. Lastly, this has provided an unusual opportunity to compare the effectiveness of various methodologies in assessing the site and also to see the long term effects on ongoing ploughing on a known and vulnerable archaeological asset.

During the research at Church Farm West the research frameworks for the site have been adapted and refined according to information and feedback from each stage with the final relevant frameworks defined during the post-excavation assessment (Webster 2011). In the following synthesis of the site the narrative is driven by these research aims.

Earlier prehistoric

No archaeological features or artefacts pre-dating the Beaker (Late Neolithic/Early Bronze Age) period were revealed during the course of the investigations, with the exception of two probable Mesolithic worked flints. These identify a human presence in the landscape but appear to represent individual losses opposed to deliberate depositions. As such they are consistent with much of the evidence for Mesolithic activity from the county, with the location of the excavated area on well drained terraces parallel to a river floodplain being typical. Indeed such locations are consistent with preferred movements of nomadic populations through the largely forested landscapes of this period (Cunliffe 2001), enabling them to make maximum use of the different resources available along the river valley which would have provided a relatively easy and recognisable route to follow through the landscape.

The earliest features identified were several scattered pits dated to the Late Neolithic/Early Bronze Age or Beaker period. This period is associated with the latter end of the time when agriculture was being adopted in Britain, although there is still extensive debate about the speed of adoption and the shift from an entirely nomadic hunter-gatherer lifestyle through the Neolithic and into the Early Bronze Age. During this period the archaeological record shows distinct changes in lifestyle with site types, cultural material and deposition processes all being markedly different to those which had gone before. It is the manner of adoption and timing of these changes which provide critical evidence in understanding the regional variations in the process of change (Thomas 1991, 1999; Topping 1997; Whittle 1997, 1999).

In Worcestershire, recent regional and local reviews (Watt 2011; Jackson and Dalwood 2007) show the archaeological record for this period to be characterised by surface finds and scatters supplemented by relatively few excavated sites. This reflects the generally ephemeral and temporary character of occupation sites typical across the region and indeed more widely and which contrast with the substantial, monumental nature of funerary and other ritual sites of the period. Whilst aerial photography and developer-led excavations have helped to expand the knowledge base, evidence remains limited and distribution patterns remain biased towards the more archaeologically 'visible' landscapes suitable for prospection and subject to commercially driven investigation. Amongst the latter, extensive stripping of large expanses of river valley terraces for mineral extraction as at Church Farm West provide ideal blank canvases for the identification of the limited and typically ephemeral remains associated with Neolithic and Early Bronze Age occupation sites, especially in comparison to the adjacent alluviated floodplain environments where deposits are often deeply buried and thus hard to detect (Jackson and Dalwood 2007). It is therefore hardly surprising that this excavation revealed a thin scatter of pits associated with Beaker pottery and flint as well as sporadic other evidence for Neolithic and Bronze Age activity. These features and finds were widely dispersed but were more prevalent in the northern half of the site. The features also included fire cracked stone, indicative of the use of hot stone technology. As is commonly the case, the pottery, flint

and fire cracked stone may not simply represent disposal of domestic refuse pits; the presence of sherds representing up to eight individual vessels in one pit being strongly indicative of careful selection of cultural material probably from localised middens. Evidence for the use of hot stone technology is also commonplace in prehistoric contexts and remains an area of intense debate with a wide range of domestic and industrial usages suggested as well as ritual ones (Hodder and Barfield 1991; Seager Thomas 2010). Lastly, although only sparsely present the charred wheat and barley remains recovered from the richest of the pits are indicative that the local population were engaged in cereal cultivation.

As noted above, such evidence for the character and use of material culture and/or for use of cereals is important in supporting the development of an understanding of local and regional patterns of adoption and change to material culture and lifestyles. Pits containing such deposits are generally understood to relate to either short periods of residence or result from commemorative events such as periods of feasting, gathering and other non-residential activities (Thomas 1999, 40). In the case of some of the features at Church Farm West, a combination of the two may be reflected since, at Holt, immediately to the north of Church Farm, four Bronze Age ring-ditches were revealed in the 1980s (Hunt *et al* 1986). These largely ploughed out remains of funerary monuments were located on the south facing slope of a ridge to the north and as such clearly would have been visible from the relatively flat plateau of the northern part of the Church Farm West excavation area. Some of the pits and artefacts recovered may therefore have been excavated and deposited by local communities during periods of construction or use of these funerary monuments. If this were the case then the objects placed into the pits potentially could represent 'offerings' to the ancestors with the pits and associated finds demarcating the northern half of the site as a buffer between an inhabited landscape to the south from that of the dead to the north.

Parallels for the pits in the region include Neolithic and Beaker pits and pit groups at Broadway (Hazzledine 1936; Smith 1946), Aston Mill Quarry, Kemerton (Dinn and Evans 1990), Longmore Hill Farm, Astley (Dinn and Hemingway 1992), Ripple Quarry, Ryall (Miller *et al* 2004), Huntsman's Quarry, Kemerton (Woodward and Jackson 2015) and perhaps most importantly Clifton Quarry, Severn Stoke (Mann and Jackson forthcoming) where isolated pits and pit clusters were associated with complex structured deposits. As at these sites, no evidence was recovered at Church Farm West for house structures, and given the number of sites investigated to date both in Worcestershire and more widely in the West Midlands this probably reflects a genuine absence of structures which were sufficiently substantial to leave traces. In turn this supports the suggestion that Neolithic and Early Bronze Age communities were still at least partially nomadic in lifestyle, using shelters that leave little or no trace in the archaeological record as opposed to the more permanent structures used by more established, sedentary farming communities (Thomas 1991; Barrett 1994; Whittle 1997; Thomas 1999; Edmonds 1999; Jackson and Dalwood 2007).

The remains revealed during the investigations at Church Farm West are therefore typical of sites of this date found within the county and the wider region as a whole, with no distinct evidence of occupation present and only small, widely scattered pits and isolated flint artefacts noted. Taken in isolation this material can tell us very little about regional preferences or lifestyle choices; however in conjunction with other evidence from across the county and wider region does suggest that whilst cultivation of crops and animal husbandry may have been practiced, populations in this region at least remained largely semi-nomadic. The project has however, tentatively identified a separation of domestic, agricultural and funerary/ritual functions within the landscape.

Iron Age

Although Iron Age and Roman enclosures and associated field systems are common across the region and typify the archaeological remains for this period, the chance to investigate such a large area in a single investigation has provided a rare opportunity to examine the inter-relationship and chronological development of several enclosures and their landscape setting (Fig 43). Further, the extensive area stripped and wider pattern of investigations completed within the immediate vicinity make it likely that the record is relatively comprehensive and thus incorporates the key components of the Iron Age and indeed subsequent Roman landscape.

The earliest Iron Age feature appears to be the sub-circular enclosure (CG 2702) located to the east of Enclosure B1. Dating indicates a Middle Iron Age origin, however, the function of this enclosure is not readily identifiable. Measuring nearly 20m in diameter and with evidence indicating the presence of a bank along its internal face, this contained neither internal features nor an entrance although this could reflect truncation by later (Roman) phases of Enclosure B. Despite the small size, the most likely function is as a further stock management feature such as a corral used for calving cows or separating out bulls. Alternative interpretations include a large building of the type recorded in parts of northern Britain or even a barrow. However, no large buildings of Middle to Late Iron Age date have been recorded in the midlands or the south (Harding 2009) and in the absence of either an outer or inner posthole ring this seems unlikely. Similarly, although this could represent a satellite feature associated with the barrow group to the immediate north of the site and, although the diameter is consistent with many barrows (Woodward 2002), there are no identifiable funerary deposits and the dating appears secure thus it seems unlikely that this is the case.

The most substantial Iron Age feature identified was the Late Iron Age dated Enclosure B1 which encompassed an area of just over 3,000m². The absence of features which would be expected in a domestic enclosure of this period (roundhouses, four posters, storage and waste pits, etc) is notable and, whilst it is possible that ephemeral features have been removed due to later truncation, this seems unlikely to have removed all traces of permanent settlement. Further the paucity of occupation debris in the enclosure ditches argues against a domestic function and this large rectangular enclosure is therefore suggested to have been related to stock control. With an entranceway 5.6m wide on its western boundary it would have been wide enough for several cattle to enter the enclosure at once and a use for penning or corralling herds of cattle may have been its primary function. Enclosure B1 had clearly fallen into disuse by the Roman period with the uppermost part of its northern boundary ditch infilled with crop processing and other waste; however, the alignment of this ditch was not only respected but also enhanced during the construction of the Roman phases of Enclosure B, thus indicating that this boundary retained its importance in the landscape.

To the west, Enclosure C1 represents a second, possibly contemporary enclosure, measuring an estimated 1,190m²; although it should be noted that this is very much an estimate, later re-modelling (Enclosure C2) having removed the eastern, northern and southern extents. A relatively substantial quantity of domestic pottery was recovered from the ditch fill suggesting at least a limited period of occupation within this enclosure. One possibility is that this enclosure and Enclosure B1 complemented each other, one providing a domestic focus and the other representing a stock enclosure. Similar division of domestic and agricultural spheres has been widely proposed elsewhere for Iron Age and Roman enclosure sites including locally at Elm Farm, Beckford and Bank Farm, Dumbleton (Coleman *et al* 2006) as well as at Conderton Camp (Thomas 2005) all in the south of the county. Despite the presence of

domestic debris within the Enclosure C1 ditch, no internal features or structures were present (or indeed within unenclosed areas beyond it) and any buildings or associated activity must have been of a rather ephemeral and perhaps temporary nature as it seems unlikely that truncation could have wholly removed evidence of substantive post-built structures or pits. It is therefore suggested that the site might have only been occupied seasonally, perhaps by a semi-nomadic (transhumant) community of pastoralists as has been suggested in other river valley systems where sites have been interpreted as seasonally occupied pastoralist settlements such as Farmoor, Oxfordshire (Lambrick and Robinson 1979) and sites along the Trent Valley (Knight 2007, 206).

Some distance to the north-east and outside the area of full excavation the east-west aligned ditch revealed during the evaluation (Fig 4; Trench 17) was of Iron Age date. This does not correlate with any cropmarks and no other features of comparable date were identified, however, given the restricted area observed this cannot be taken as a reliable indication of an absence of activity. At present this appears most likely to represent a field boundary ditch and clearly provides evidence of Iron Age activity beyond the main investigation area.

Lastly of note are the five Iron Age pits associated with what appear to be single vessels placed in them along with quantities of fire cracked stone. As noted previously, special deposits have been increasingly recognised on Iron Age sites and these often include pottery placed as a structured deposit within contexts interpreted as relating to ritual activity (Hill 1995). These pits may have such associations, although more mundane practices such as cooking may also be represented.

Romano-British

Site development and chronology

The Roman period was as expected the main focus of the activity recorded at Church Farm West providing continuity with the Iron Age activity described above and providing evidence of a complex pattern of development, remodelling, elaboration and eventually wholesale abandonment of a series of enclosures from the 1st through to the 4th centuries AD (Fig 43).

This pattern of reworking commenced sometime towards the end of the Iron Age or early in the Roman period when one of the Iron Age enclosures, Enclosure C1, was extensively reworked to form Enclosure C2. At about the same time Enclosure B1 was also remodelled to form Enclosure B2 and this was remodelled on at least two further occasions during the Roman period, shifting in focus both to the east and north along the crest of the ridge as the enclosure progressively became more complex with successive phases (B3 and B4) adding and removing features. Over the course of the second and third centuries, additional enclosures were constructed across the ridge (Enclosures A, D and E) and the area became a busy focus of activity within the landscape. The 2nd century appears to have seen the height of activity with Enclosure C being abandoned but Enclosure B at its most elaborate and a new enclosure being constructed to its south (Enclosure D). The interface between the 3rd and 4th centuries was a period of substantial change with the focus of activity being diverted south with the construction of Enclosure A and potentially Enclosure E as well, although the limited investigation of the latter means some caution should be exercised with the dating of this particular enclosure. However, the orientation of activity also appears to rotate during this period with the earlier north-east/south-west axis shifting to the more north to south alignment

of Enclosures A and E. Both the latter enclosures appear to have been abandoned at some point during the 4th century and there is no firm evidence for further activity until the late 7th to 8th century.

Interpretation of the function and relationship between the Roman enclosures is restricted by the uncertainty about how much truncation has removed; however, some observations and patterns are present. In the first instance it seems that prior to a whole-scale remodelling of the site in the late 3rd century AD, Enclosure B provided the principal domestic focus, producing the greatest quantities and range of domestic pottery and other finds. This enclosure was reworked on a number of occasions with Enclosure B1 being of Late Iron Age date, Enclosure B2 of 1st century date and Enclosures B3 and 4 spanning the 2nd to 3rd centuries prior to abandonment sometime in the 3rd century. It can also be tentatively suggested that a further focus of (?unenclosed) domestic activity was located beyond the enclosure to the south. Here the ditches of the later dated (late 3rd to 4th century) Enclosures A and E included residual domestic material and building debris and these possibly indicate the clearance of an area of occupation to make way for the construction of these later enclosures. The corn-drying oven located within the area occupied by Enclosure A may also have been associated with earlier occupation; however, unfortunately no dating evidence was recovered from the structure.

During the earlier part of the period of occupation of Enclosure B and extending the Iron Age pattern, Enclosure C2 appears to have complemented it, the lack of domestic debris suggesting that it probably functioned as a stock enclosure. This was abandoned at some point in the 1st century AD and appears to have been replaced to the south by Enclosure D which was constructed sometime in the mid to late 1st century and probably continued in use through the 2nd century. The paucity of material culture present within Enclosure D also suggests that this was a stock enclosure; the three bays or pens present perhaps allowing division of the livestock as required. Towards the end of the 3rd century the focus of the site shifted south and the axis on which it was laid out was re-orientated. A domestic focus probably lay to the south within Enclosure E, whilst to the immediate north the most substantial of the investigated enclosures, Enclosure A was constructed. Notably, although this was the more substantial of the later enclosures, this appears to have been focussed towards Enclosure E with its narrow entrance facing Enclosure E and the enclosure ditch being deepest and broadest along this side. As already noted the majority of the material culture recovered from Enclosure A was residual and the paucity of the material present allied to the size of the boundary ditch are indicative of a stock enclosure function.

Throughout the period of occupation therefore, the site appears to have been characterised by the association of domestic enclosures with stock enclosures which together formed part of an integrated and well organised agricultural landscape. This suggests that stock management and control may have been of prime importance, an interpretation supported by the presence of internal sub-divisions within the enclosures (stock pens), entrances on corners, potential 'funnelling' or blocking features and also the presence of several droves. Further, it should be noted that with the exception of Enclosure E, even the apparent domestic enclosures were associated with relatively restricted material and ecofactual assemblages and did not contain the range of domestic structures, pits or other features which might be anticipated where extensive and/or intensive occupation was present. Although truncation is clearly a factor, even heavily truncated sites of this period in the region have produced the poorly surviving remains of some structures (postholes and ring ditches) and pits. In addition substantial assemblages of domestic waste have typically been recovered from settlement enclosure ditches within the south-east of the region across much of Worcestershire and Warwickshire. Although restricted

use of material culture may reflect different social aspirations driven by cultural preferences as has been widely observed further to the north and west (White and Gaffney 2003; Booth 2008), sites in the immediate vicinity of Church Farm West, including at Linacres Farm on the opposite bank of the Severn, have produced abundant quantities of domestic refuse (Dalwood *et al* 1998) as have other sites in the hinterland of the Roman town of Worcester. Therefore the relative paucity of material culture encountered seems more likely to indicate that significant domestic occupation was not present, at least during the 1st and 2nd centuries. The only possible exception to this observation falls during the later phases of activity during which Enclosure E produced approximately a quarter of the total Roman pottery assemblage recovered from the site despite only having been investigated during the evaluation; although caution needs to be exercised since nearly all of the pottery recovered derived from a single feature which may not be entirely representative. Overall, however, the paucity of material culture for much of the period of occupation is notable especially given the proximity of the 'small town' of Worcester and thus the ready supply of pottery and other goods as evidenced elsewhere in Worcester's hinterland.

On the basis of these strands of evidence, it is therefore proposed that as during the Iron Age, extensive and/or permanent occupation was not present at Church Farm West for much of the period of Roman occupation, or at least until the latest phases of activity. Prior to this, the site may have retained the more specialised function suggested for its Iron Age predecessor, perhaps having been occupied by a small community of pastoral farmers, with occupation possibly even only being on a seasonal basis. Such seasonal occupation could either reflect an annual pattern of exploitation of areas of pasture which involved moving cattle or other stock around the landscape to maximise the use of available resources (in this case riverside meadows?) or alternatively, as suggested for the Longdales Road site in south Birmingham (Jones *et al* 2008), the site could have functioned as a specialist livestock corralling or even trading point to which stock was driven over some distances. Further afield specialist livestock rearing and pastorally based economies have been argued for sites in the Upper Thames Valley as at Thornhill Farm and Claydon Pike. Both of these sites have been argued to effectively have operated as cattle ranches (Booth *et al* 2007), whilst Watkins Farm in the same area has been linked to this pastoral economy but due to the paucity of material culture has been suggested as only seasonally or sporadically occupied (Allen 1990). Such sites might not develop or require the more substantial structures and features that are associated with more well-established settlements since the inhabitants may have been few in number or in the case of seasonal occupation only present for limited periods each year when herds were driven to such sites. Such a model fits much of the evidence at Church Farm West during not only the Iron Age but into the Roman period. Even during this later period, the construction and form of Enclosure A with the presence of droves to its south and west suggests that pastoral farming retained its importance, although as already noted the albeit limited evidence from Enclosure E suggests that domestic occupation had become more well established and permanent.

The wider context of the site: Social identity and economic development

The proximity of the Roman 'small town' of Worcester 6.5km to the south will have provided a major influence on the economic development and social identity of the site at Church Farm West. The nature of Roman Worcester has only recently begun to emerge with any clarity, through the cumulative impact of developer-led fieldwork with over 50 sites being undertaken since 1990. This fieldwork included a series of large-scale excavations in the

north-western part of this 'small-town', only one of which has been fully published (Dalwood and Edwards 2004). Whilst excavations across the town have shown a wide range of buildings types, industrial processes and activities occurring, including significant ironworking, it is the identification of large cattle 'stock enclosures' and 'corals' within the 'urban area' at Deansway (*ibid*) which is of particular interest in relation to the recent excavations at Church Farm West. Worcester has long been seen as a focus of activity in the region, acting as a regional market and redistribution centre (*ibid*), whilst the influence of the 'small town' at Droitwich with its major salt producing industry (Hurst 2006) should also not be overlooked since this is also located nearby. Further, the West Midlands research agenda has highlighted the wider region as potentially being a resource procurement zone, in particular to feed, clothe and equip troops during the first two centuries of Roman rule. It has been suggested that procurement might involve such regional resources as livestock, cereals, minerals and timber. Indeed King (1999, 144) has argued that the economy of the area was heavily focused on sourcing livestock to meet the requirement for feeding the legions undertaking military campaigns into Wales and the north.

In the light of this, Church Farm West is ideally located for a site with a function tied to a role in the pastoral economy, either as a specialist farming enterprise engaged in rearing and supplying cattle or other livestock (either on the hoof or as meat) to the population of the nearby 'small towns' at Worcester and Droitwich, or as a specialist livestock corralling or even trading point associated with wider trade and exchange networks serviced by the 'small town' at Worcester. Furthermore its location on the west bank of the Severn means it would be readily accessible for anybody driving stock from areas to the west whilst it is also close to a fording point and a major north-south road and thus has good access. Other sites have been identified in the region in recent years where specialist pastoral functions have been identified, however, these focus to the north as at Longdales Road (Jones *et al* 2008) and at Langley Mill Farm on the M6 Toll (Site 29; Powell *et al* 2008), both in the Birmingham region. Indeed an economy based around livestock rearing has been argued for sites more widely across the north and west of the region (Esmonde Cleary 2011) as exemplified by the hinterland survey undertaken around the Roman city of Wroxeter in Shropshire (White and Gaffney 2003).

As identified in the project's research design, the site at Church Farm West is located in an area which forms a boundary between two distinct cultural regions which have their roots in pre-Roman Iron Age tribal patterns but are most evidently expressed in the social and economic patterns of the Roman period. To the north and west, dispersed settlement patterns and enclosed farmsteads characterise the region and as noted above have been argued to have a predominantly pastoral economy. These can be linked to the territory of the *Cornovii* whilst the small towns, villa estates and compound settlements that characterise the south-east appear to have a more mixed or arable based economy and can be associated with the *Dobunni*. In essence, the *Dobunni* occupied a zone of innovation, easily assimilating Roman cultural identity as evidenced through new building techniques and the widespread adoption of aspects of Roman lifestyle and material culture (Esmonde Cleary 2011). In contrast the *Cornovii* appear to have adopted Roman material culture, lifestyles and settlement types to a much lesser extent whilst maintaining many aspects of pre-Roman native culture (Gaffney and White 2007). In this social and economic model, Worcester which only lies some 3 or 4kms south of the site would almost certainly have had an important role in the distribution and redistribution of both agricultural surplus and other goods. This importance may have been further emphasised by its location on a major navigable river set more or less on the border between the landscapes north and west of Worcester, where soils are well suited to pastoral farming, and those to the south and east where soils are particularly suited to arable cultivation

and horticulture. Recent work undertaken at Longdales Road, King's Norton, Birmingham has supported this model, suggesting that the lack of Romano-British material culture present may have been the result of an ongoing 'conservative' tradition that was reluctant to incorporate Roman techniques (Jones *et al.* 2008).

Church Farm West therefore provides an important contribution to this debate, lying as it does on the north-west side of the *Dobunni* territory and being both close to and well connected to major trading routes and the market town of Worcester, yet potentially having an economic, social and cultural identity more rooted in traditions of the *Cornovii* as reflected in the relative paucity of cultural material present and dominance of animal husbandry.

Decline and abandonment

The establishment of Enclosures A and E during the late 3rd century indicates a late flourishing of the site Church Farm West, however, it appears to have fallen into decline in the 4th century fitting a pattern apparent across the region and indeed nationally. Regionally, Booth and Evans (2001) in discussing the phase of abandonment at the 'small town' of Alcester in Warwickshire have argued that decline and abandonment was due to issues with supply and demand. A peak of Severn Valley wares in the mid 3rd century seen at Alcester declined as the reliance shifted to fewer, more distant sources for their pottery supplies. Within such a pattern of changing trading networks, local producers supplying the demands of a wider chain of supply would be highly vulnerable and thus perhaps with its heavy reliance on livestock the community at Church Farm West were forced out of the local markets and the site was eventually abandoned.

Early medieval

Very few rural settlement sites from this period have been recorded in Worcestershire and the evidence of a sunken featured building located within an abandoned Roman enclosure at Church Farm West provides an important addition to the record. With only a single dwelling and a recut section of enclosure ditch identified, there is little that can be deduced about the nature of the settlement excepting that it was apparently an isolated domestic building perhaps established within a still visible and at least partially reworked Roman enclosure. Radiocarbon dating suggests occupation in the late 7th/8th century.

Pottery recovered was comparable to the assemblages from the nearby site at Upwich in Droitwich, the former Roman 'small town' having remained an important salt production centre which must have influenced the local economy. Wheat and hulled barley recovered from the sunken featured building demonstrate that these were still being cultivated in the area but the wheat variety appears to have changed from hulled wheat to free-threshing based. Other cereals appear for the first time, especially rye and it is most likely that oats were being cultivated as well.

As noted above, few sites of this period have been found in the county with a site at Saxon's Lode Farm, Ripple some 25kms to the south being by far the most significant example known to date. This comprised six sunken featured buildings of 6th to 7th century date (Alexander 2006) and as at Church Farm West these had been constructed within a former Romano-British enclosure. Other known examples in the region comprise a single building containing a bread oven at Fladbury (Peacock 1967) and several buildings found in and around Aston Mill Farm, Kemerton (Bellamy 2001; Dinn and Evans 1990; Fagan, Hurst and

Pearson 1994). These settlements characterised by sunken featured buildings are understood to be associated with Anglo-Saxon settlers as are a number of cemeteries associated with this period. These are focussed in the south and east of the county and the location of Church Farm West, north of Worcester and on the west bank of the Severn is therefore of some note as is the relatively late date of the activity.

Lastly, it should be noted that there remains an apparent hiatus in occupation at Church Farm West between the end of the Roman period and the establishment of early medieval settlement, reflecting a pattern observed at Saxon's Lode Farm (Alexander 2006) and Bank Farm, Dumbleton (Coleman, Hancocks and Watts 2006) both of which are located near the boundary between Worcestershire and Gloucestershire to the south. At all three sites it appears unlikely that the location of the early medieval settlement within or immediately adjacent to Roman enclosures is co-incidental and it is evident that the later settlements must in some way have referenced these earlier sites. Certainly at Church Farm West, evidence suggests that the earthworks of the former Roman enclosure would have remained visible in the landscape as a clear depression, and this suggestion is supported by the re-cutting of at least part of the ditch at this time. However, at none of these sites was there any evidence for occupation in the intervening couple of centuries and thus the problem of identifying immediately post-Roman (5th and 6th century) activity in the landscape remains.

Overview

Iron Age and Romano-British archaeological sites in the region have traditionally been characterised by enclosure complexes focussed on gravel terraces; a pattern now understood to largely have arisen as a result of the ready formation of cropmarks on such drift geologies which facilitates prospection through aerial photography.

Amongst these cropmark sites, morphology varies from largely isolated rectilinear enclosures in the north and west of the region to more complex patterns of conjoined and/or overlapping palimpsests of enclosures to the south and east. These sites when investigated have typically been dated to the Iron Age or Romano-British periods, with those occupied during the Late Iron Age commonly continuing in use well into the Roman period. Furthermore the ubiquity of Roman artefacts on such sites in many parts of the region makes them well suited to structured surface collection (fieldwalking) to confirm and refine dating and definition of such complexes. As a result such sites have become a very prominent element of the archaeological record.

These factors of visibility mean that distribution patterns are heavily biased towards the cultivated and well-drained gravel terraces of the county such as are present along the Severn and Avon Valleys. This combined with a higher concentration of fieldwork undertaken on gravels ahead of mineral extraction has only helped to exacerbate the potential bias present (Morton and Holbrook 2007). Chance discoveries made during the monitoring of developments have partially helped to redress the balance away from the well-defined cropmark zones; however, it has primarily been the archaeological monitoring of road and pipeline construction projects that have provided an understanding of wider distribution patterns across the region since such projects provide essentially random transects across variable geologies and landscapes. Overall the model of intensive exploitation and settlement on the river terraces has been substantiated, although some areas dominated by heavy clay and clay with gravels have now also been demonstrated to support dense evidence of settlement (Griffin, Griffin and Jackson 2005; Vaughan 2005; Robin Jackson pers comm).

The site at Church Farm West, lying as it does within a complex series of cropmarks sited on a well drained gravel terrace, has therefore provided a further example of an already well-represented settlement type in the region; however, the large scale of the investigated area has provided a rare opportunity to comprehensively explore a series of associated enclosures as well as their immediate environs. As a result the site provides an important contribution to the ongoing development of an understanding of such settlements. Here, a sequence of enclosures has been recorded with associated tracks, droves and field boundaries that were established and remodelled on successive occasions from the Iron Age through to at least the 3rd -4th centuries AD. Although occupation of some areas is attested by quantities of domestic refuse present in ditches, several of the enclosures appear to have been used for stock management, the larger examples possibly having been used for holding large quantities of animals brought to the site prior to movement onwards to their final destination in a fashion not dissimilar to modern cattle markets. Whilst the initial phases of enclosure were simple large rectilinear areas, later versions included internal divisions and droves and boundaries leading towards entranceways in a manner probably designed to allow easier control in the movement and separation of animal herds. Large dumps of burnt material and pottery were recovered from the ditches of one of the enclosures and were indicative of industrial activity occurring in the 3rd century AD before abandonment of this area during the 4th century.

Throughout the period of occupation therefore, the site appears to have been characterised by an integrated and organised landscape characterised by domestic enclosures and associated stock enclosures. Within the former, the relatively low levels of occupation debris present allied to the absence of substantial structures or other features indicate that occupation may only have been seasonal. This is at odds with traditional interpretive models for enclosure sites of the Iron Age and Romano-British periods in the Midlands which have tended to assume that the occupants of these sites were entirely sedentary and economically reliant on farming the landscape in much the same way as in later periods. Church Farm West does not appear to fit that model and raises the possibility that semi-nomadic pastoralists might have been present within regional communities or that some sites had highly specialised functions within the rural economy providing gathering places to which large numbers of cattle or other animals were driven.

Whilst the majority of material and features revealed were of Iron Age or Romano-British in date, artefacts and a sparse scatter of features also provided evidence for activity across the area from at least the Late Neolithic/Early Bronze Age onwards; however, this early activity at most related to short-lived episodes of temporary occupation and in the case of several Beaker pits may potentially have a relationship to a series of nearby ring-ditches and other evidence of funerary activity.

Rare and important evidence of early medieval activity was also identified in the form of a sunken featured building and associated pottery. Although it is possible that this reflects continuity of occupation from the late Roman period, it seems from ceramic evidence that there was a hiatus in activity at the site for at least 300 years from the late 3rd century through to sometime in the 7th century.

The excavations at Church Farm West, Ball Mill Quarry, Grimley, have therefore provided an important opportunity to investigate the evolution of a rural settlement including the detailed examination of four complete later prehistoric and Romano-British enclosures, associated field systems, trackways and the immediate environs. This has provided an insight into changing

patterns of inhabitation within the local landscape in this part of the Severn Valley from early prehistoric mobile communities to the permanent enclosures of the Iron Age, Romano-British and early medieval communities.

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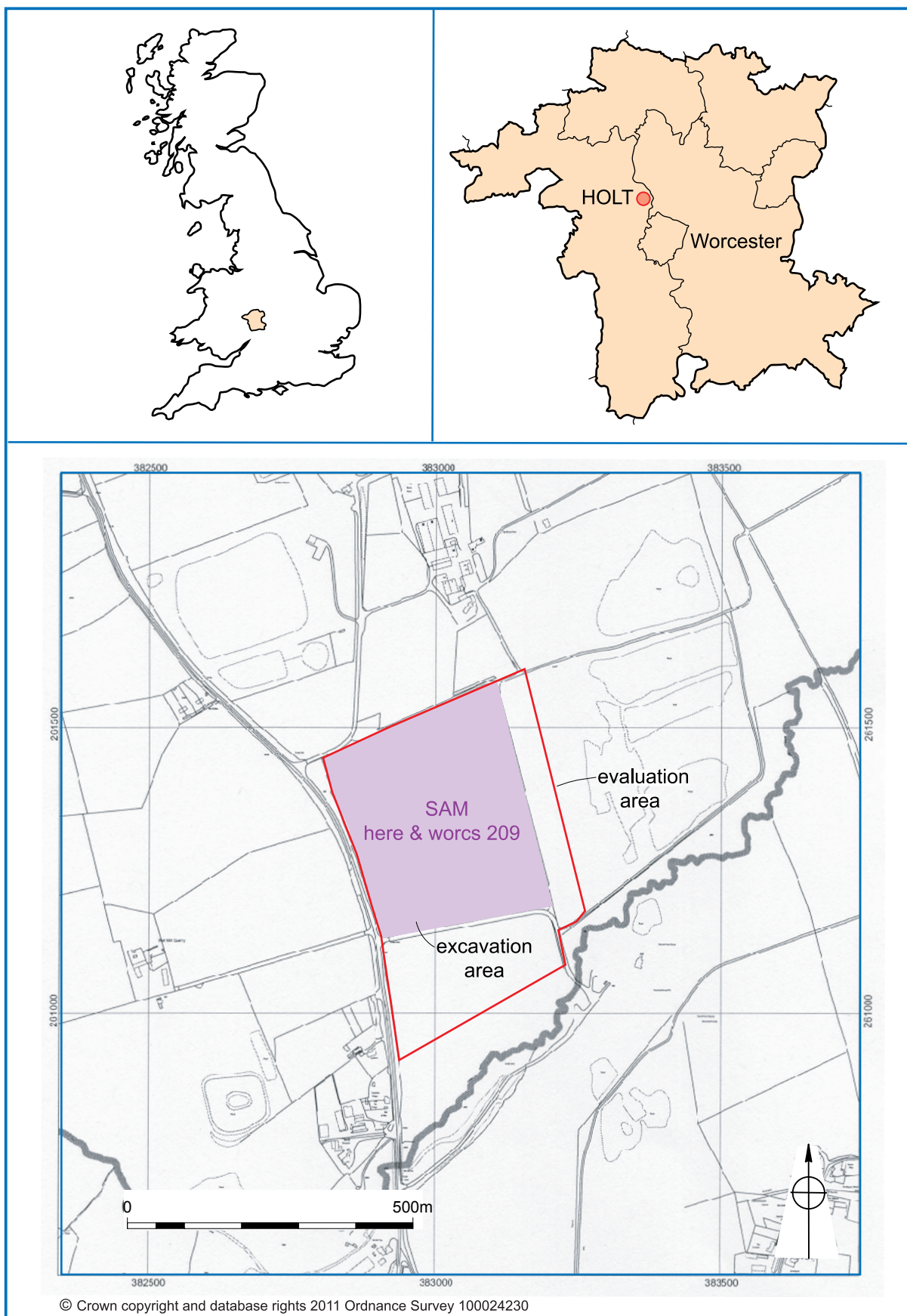


Figure 1: Location of site

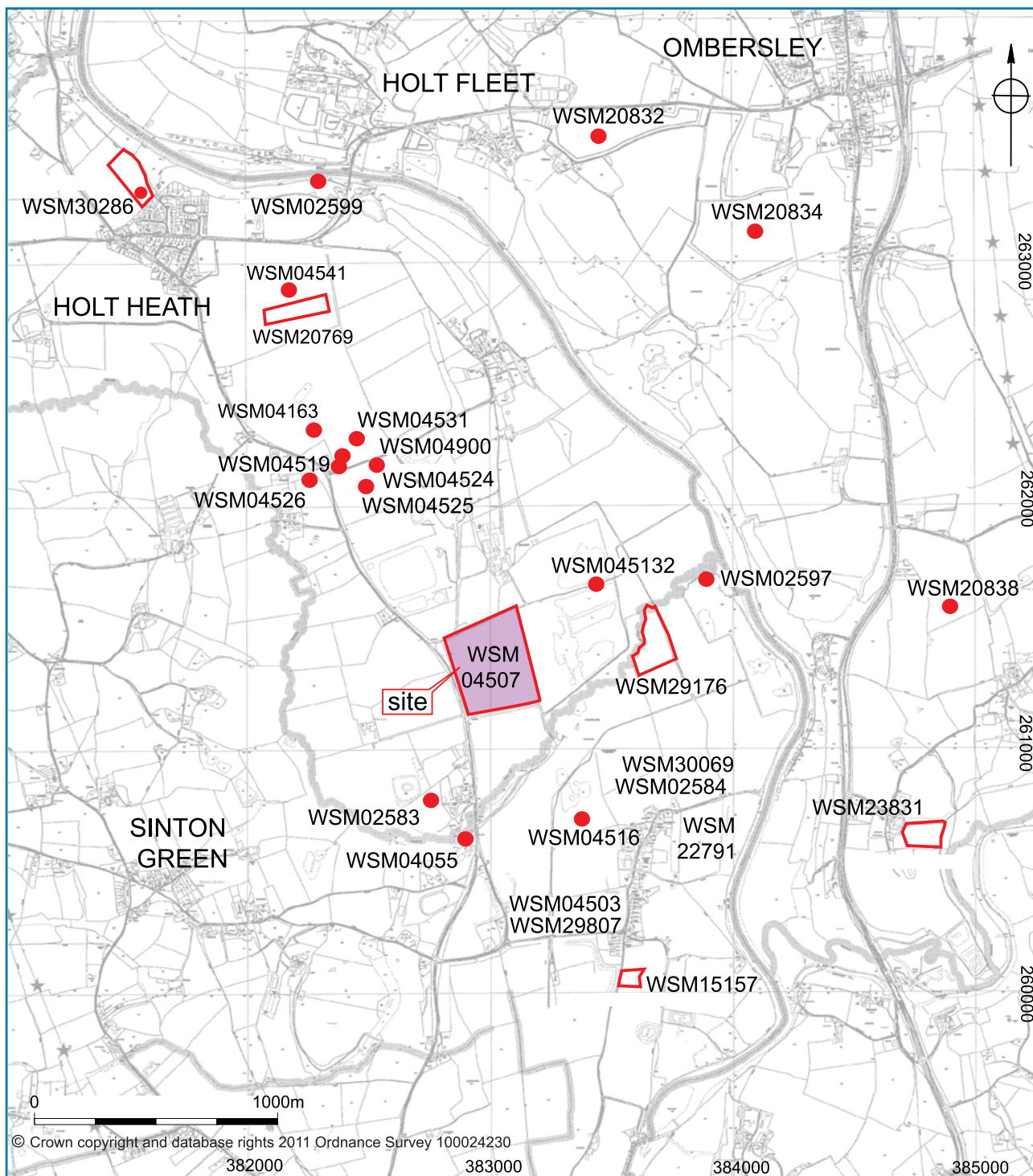


Figure 2: Sites in the vicinity

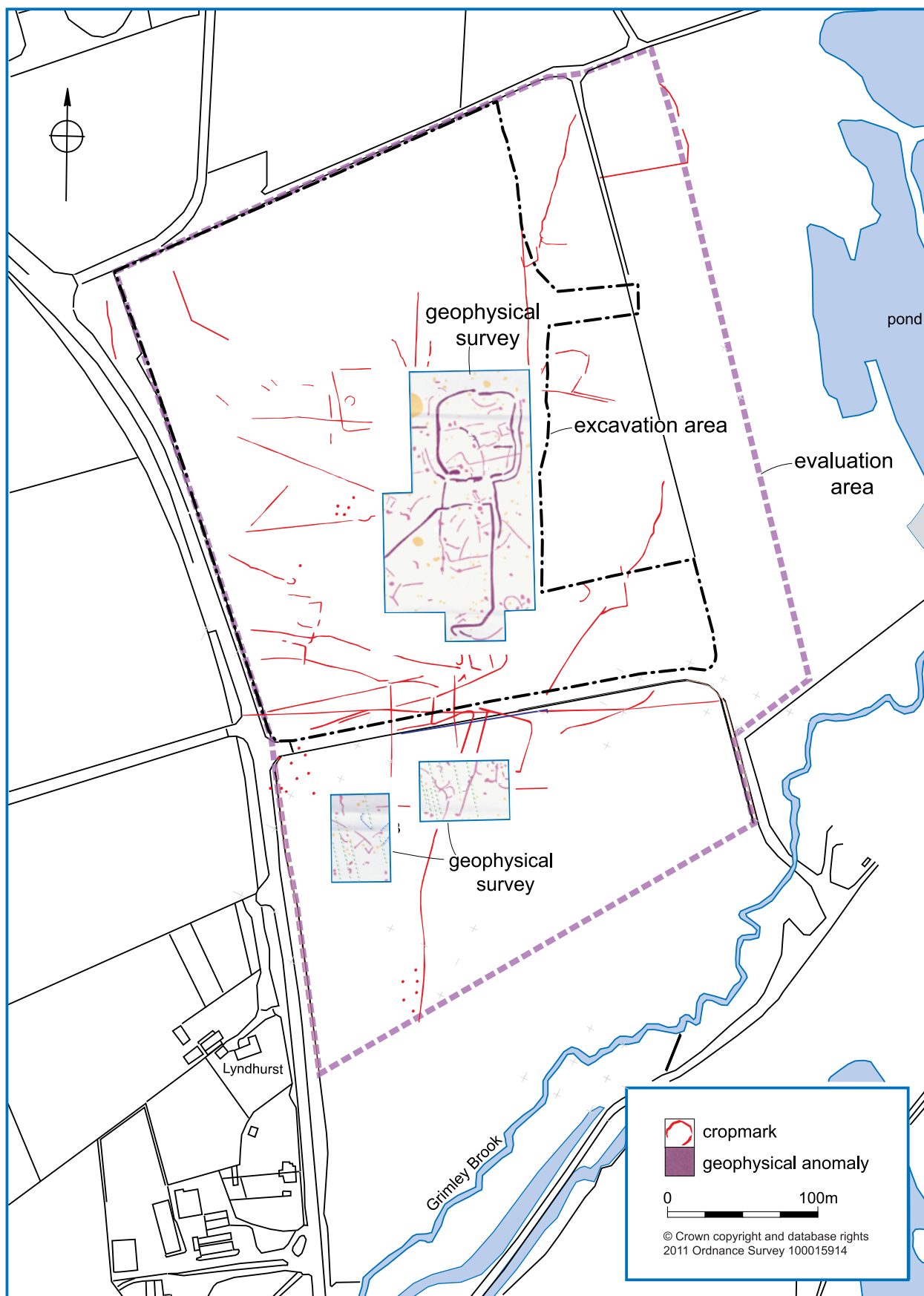
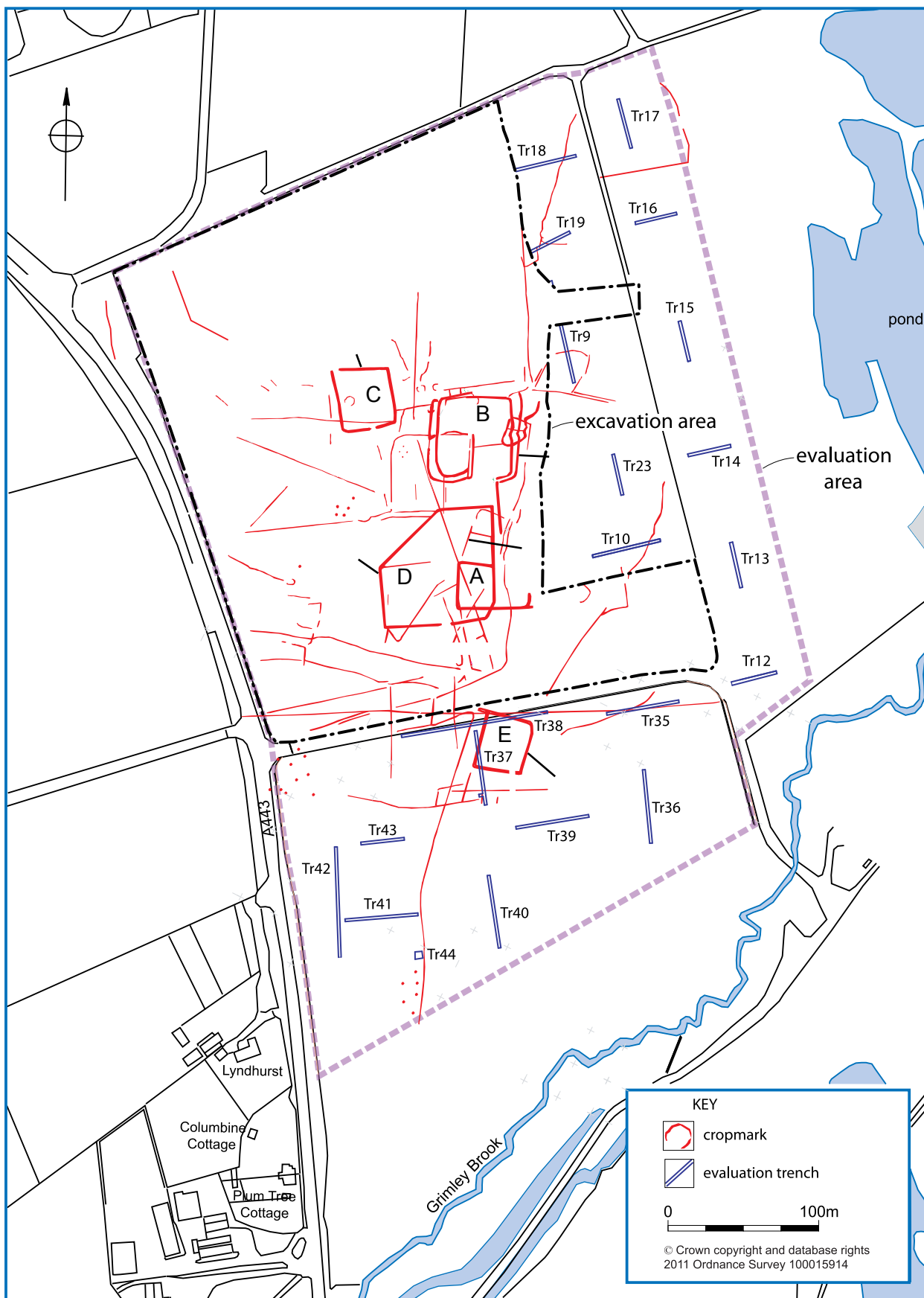


Figure 3: Geophysics overlaid onto cropmarks



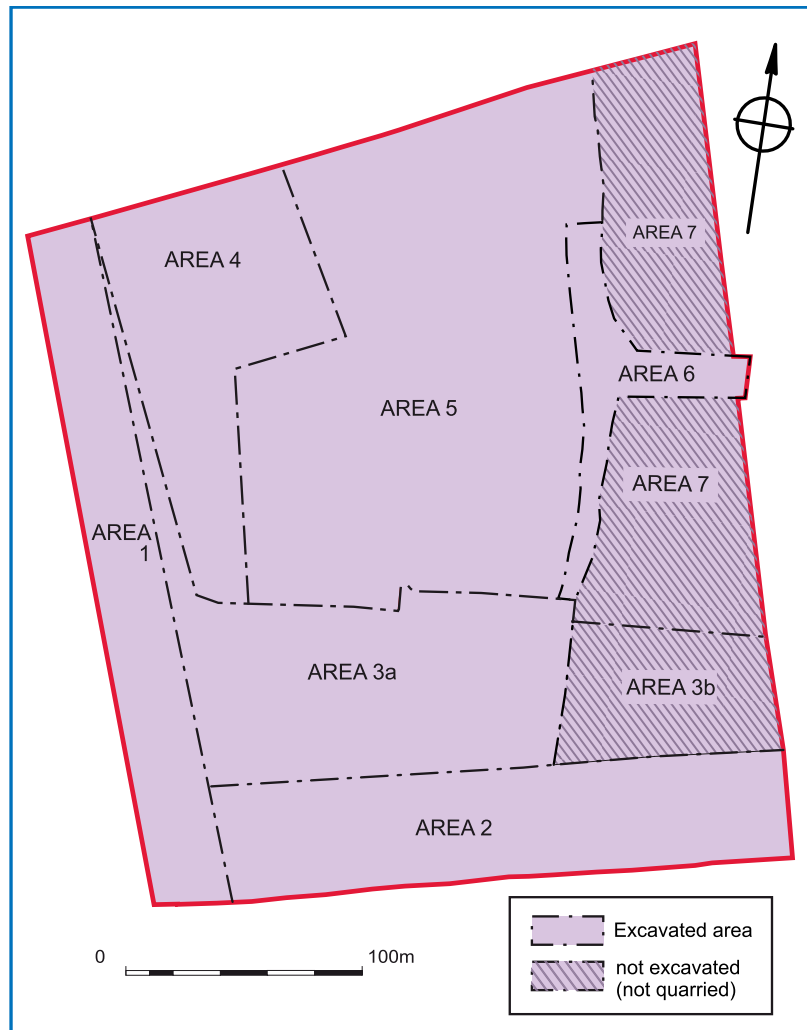


Figure 5: Excavation phasing



Figure 6: Excavation of southern half of the site (facing north-east)



Figure 7: All features with cropmarks and evaluation trenches

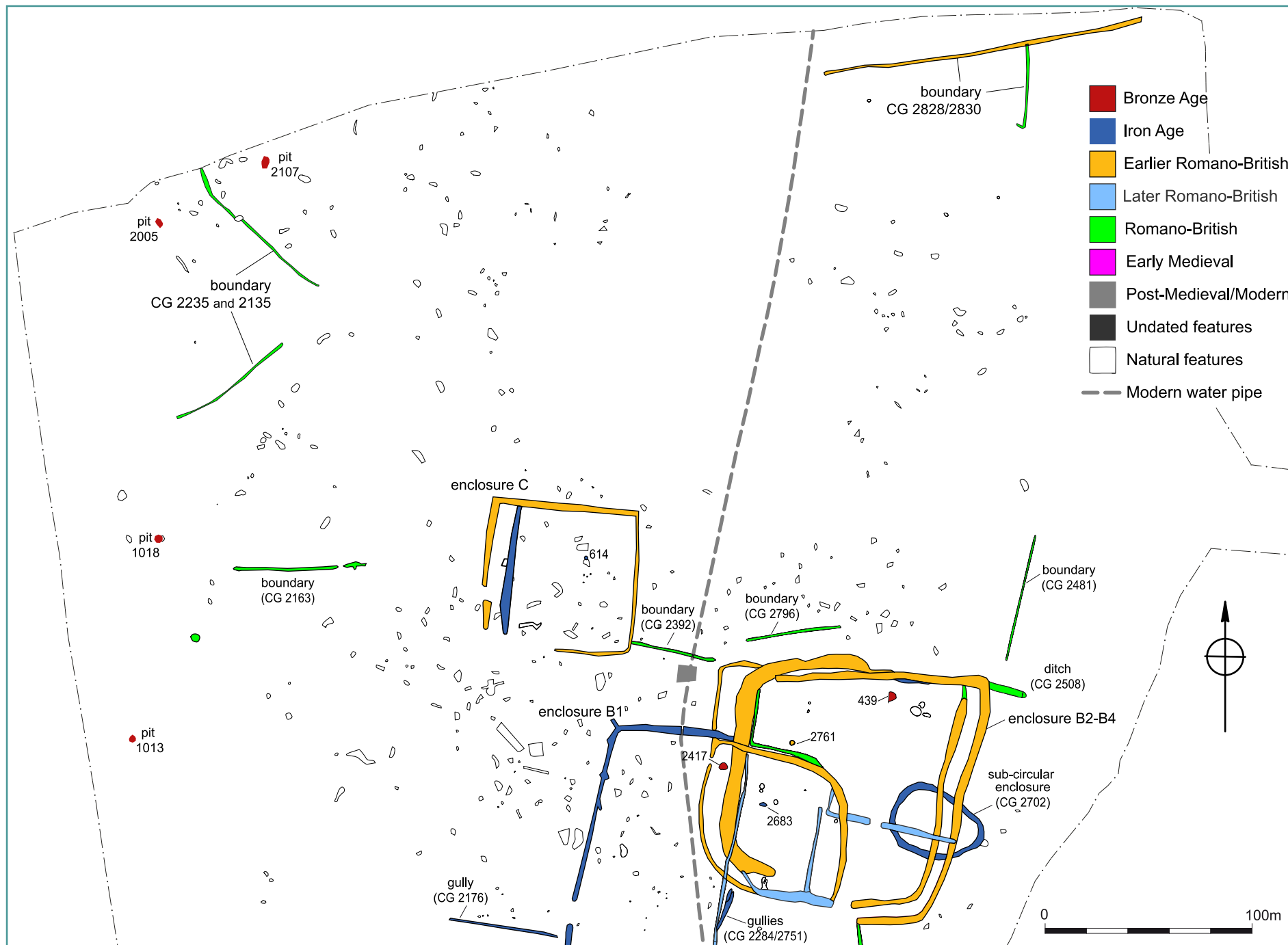


Figure 8: All features (north)

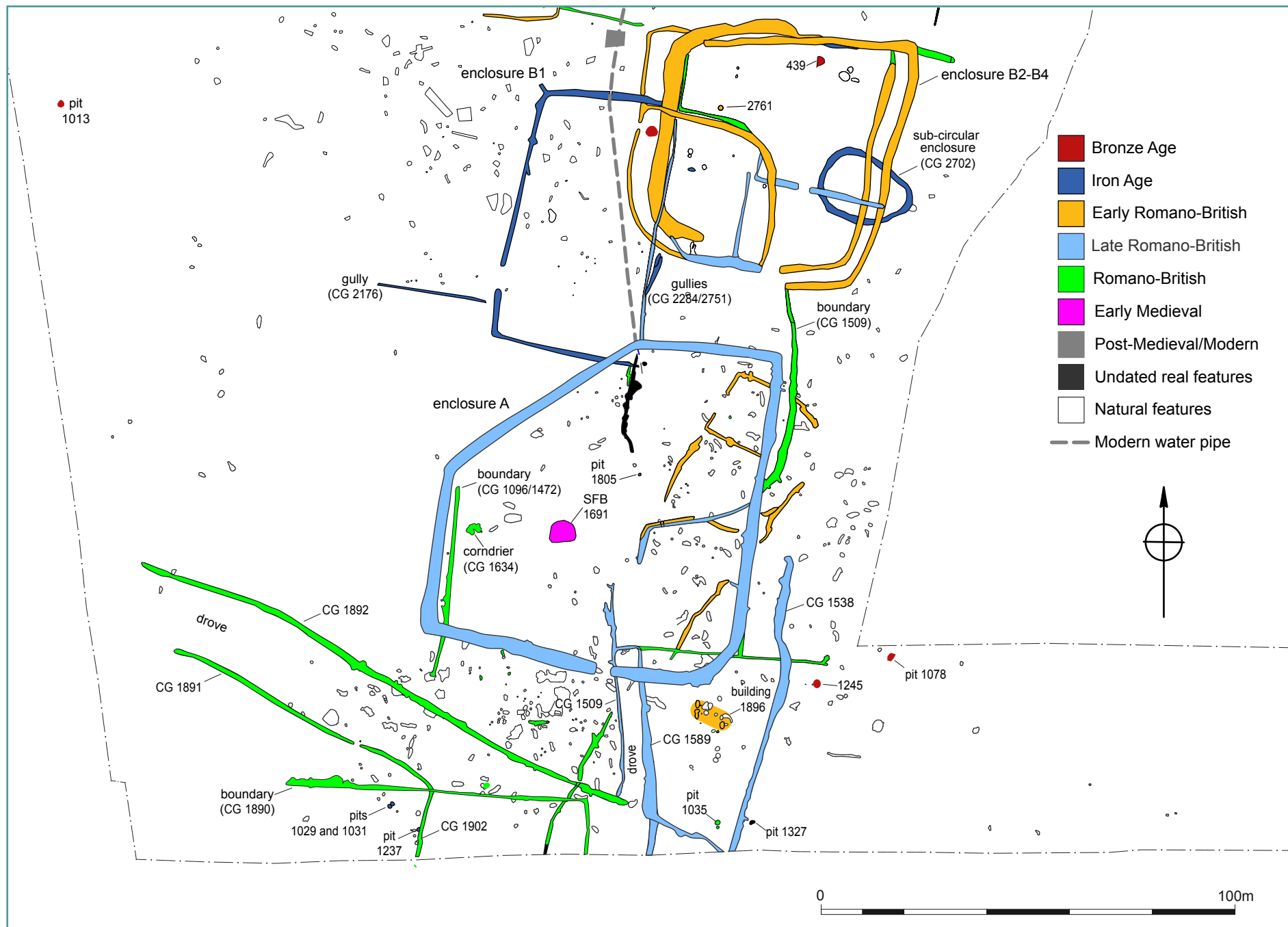


Figure 9: All features (south)

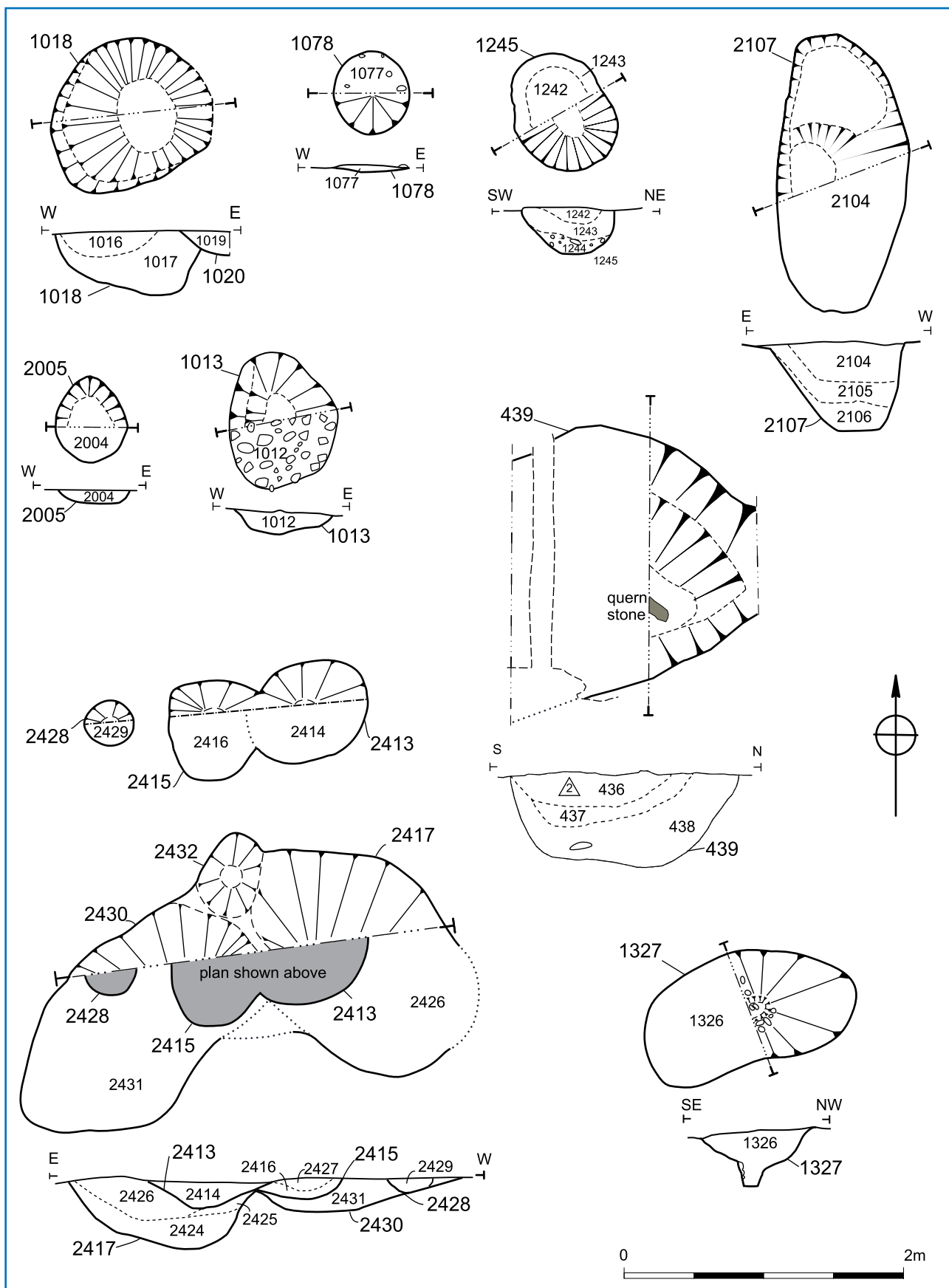


Figure 10: Beaker and Bronze Age pits: plans and sections

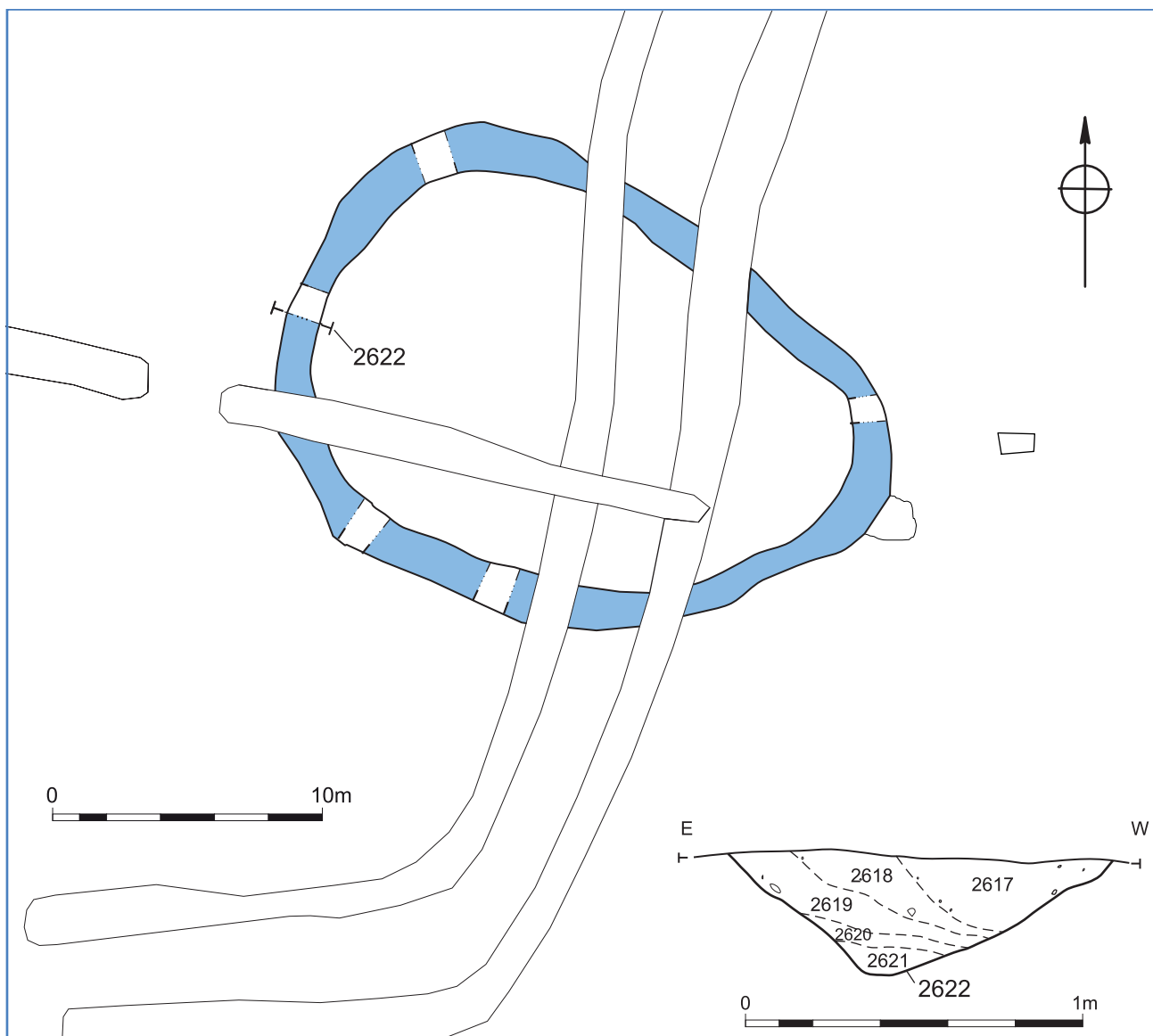


Figure 11: Sub circular enclosure CG 2702: plan and representative section

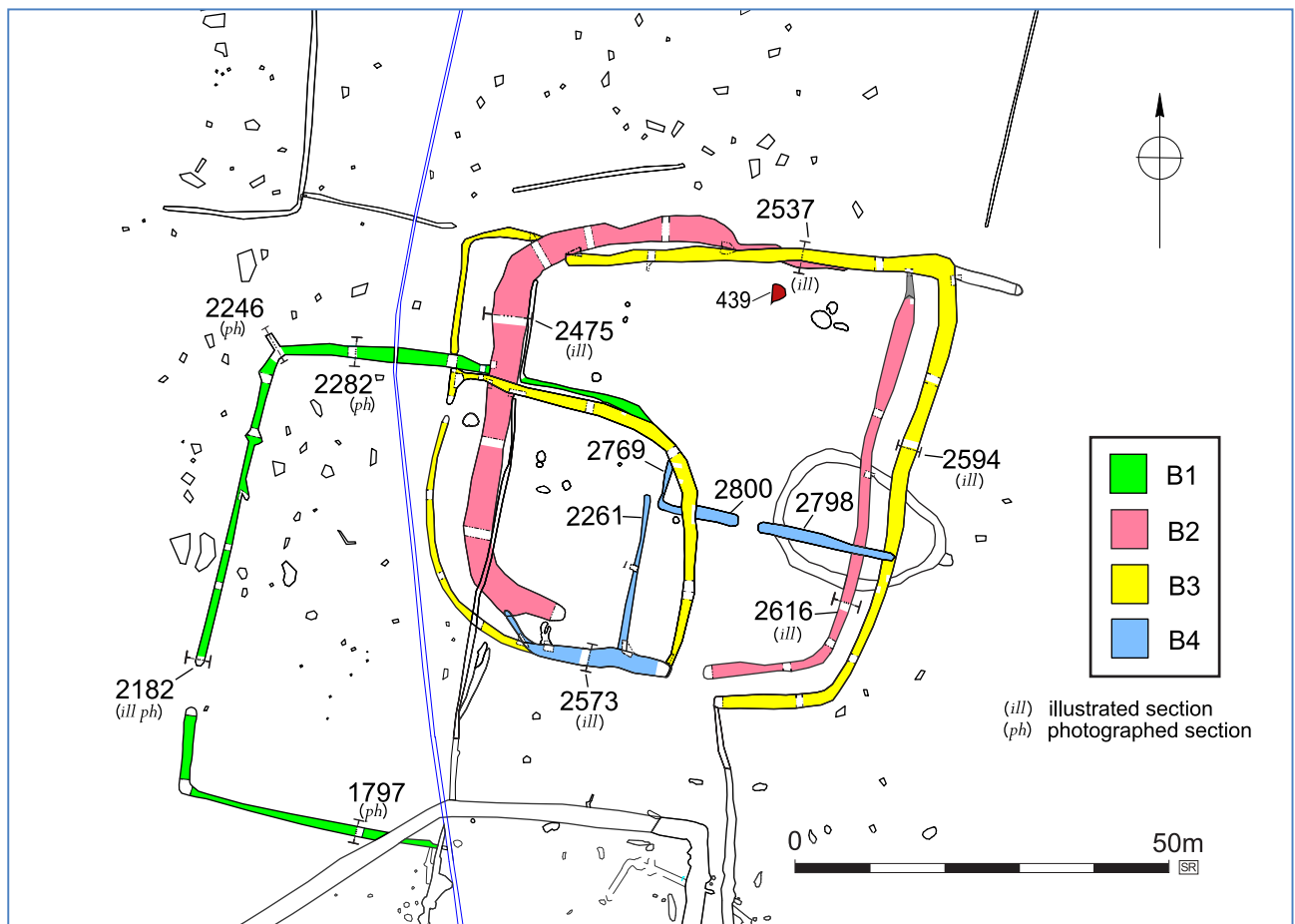


Figure 12: Enclosure B: phase plan



13.1 Charcoal rich fills (2282) on north side



13.2 Section (2246) across north-west corner



13.3 South side - representative section (1797)



13.4 Ditch terminus (2182)

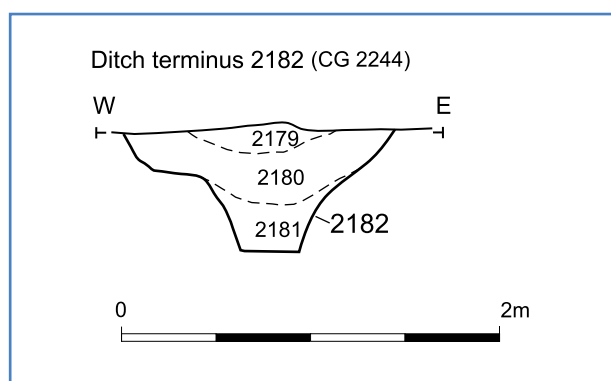


Figure 13: Enclosure B1: Sections

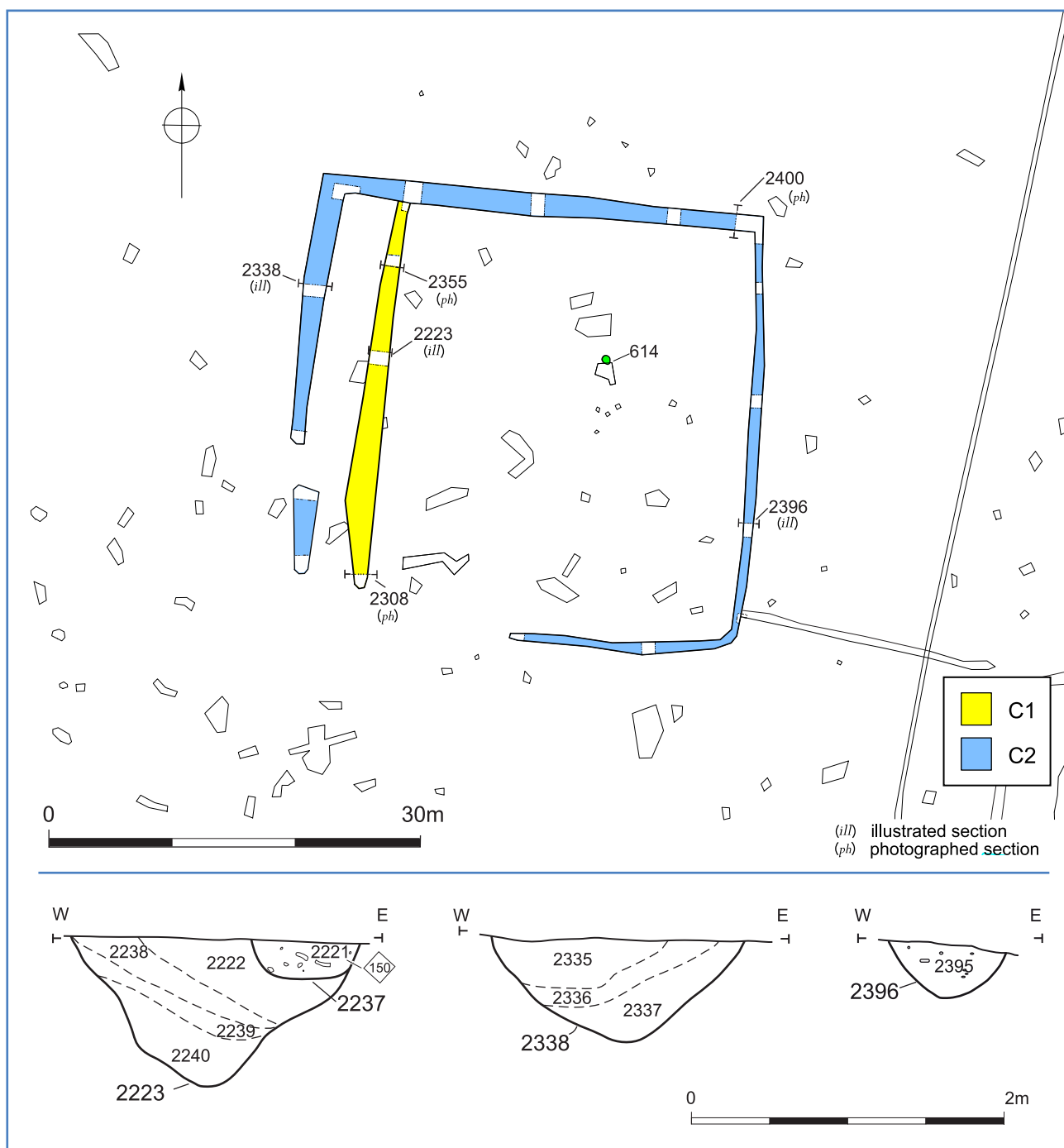


Figure 14: Enclosure C: phased plan



15.1 Enclosure C1 terminus (2308)



15.2 Enclosure C1 representative section (2355)



15.3 Enclosure C2 north-east corner (2400)



15.4 Enclosure C2 representative section (2355)

Figure 15: Enclosure C photographs

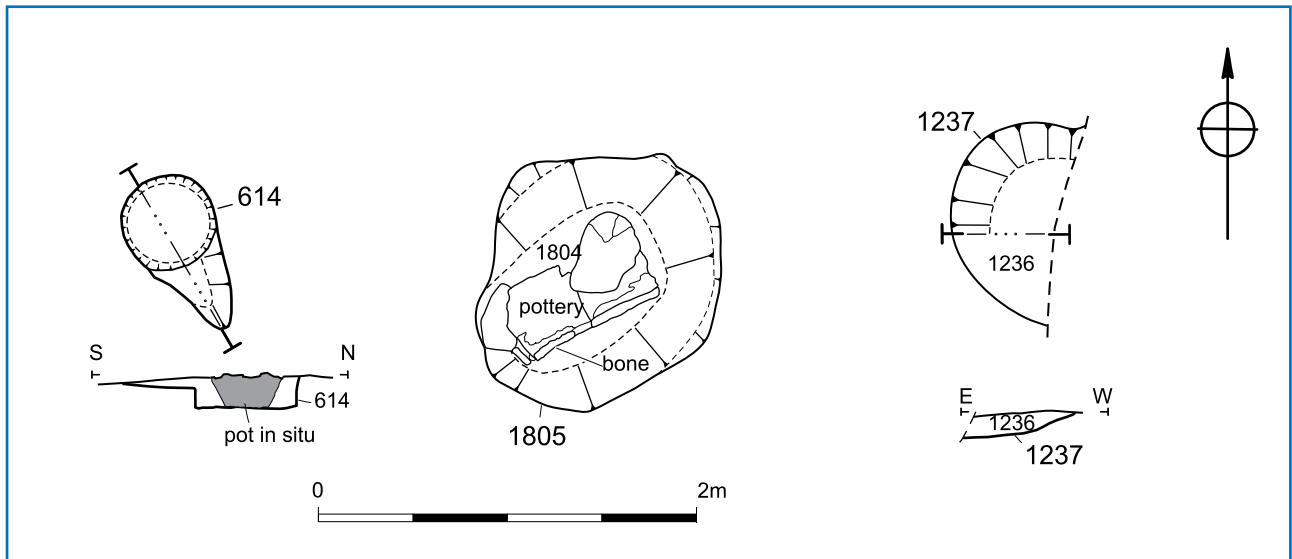


Figure 16: Iron Age pits: plans and sections



Figure 17: Pit 614 with pot full of fire cracked stone

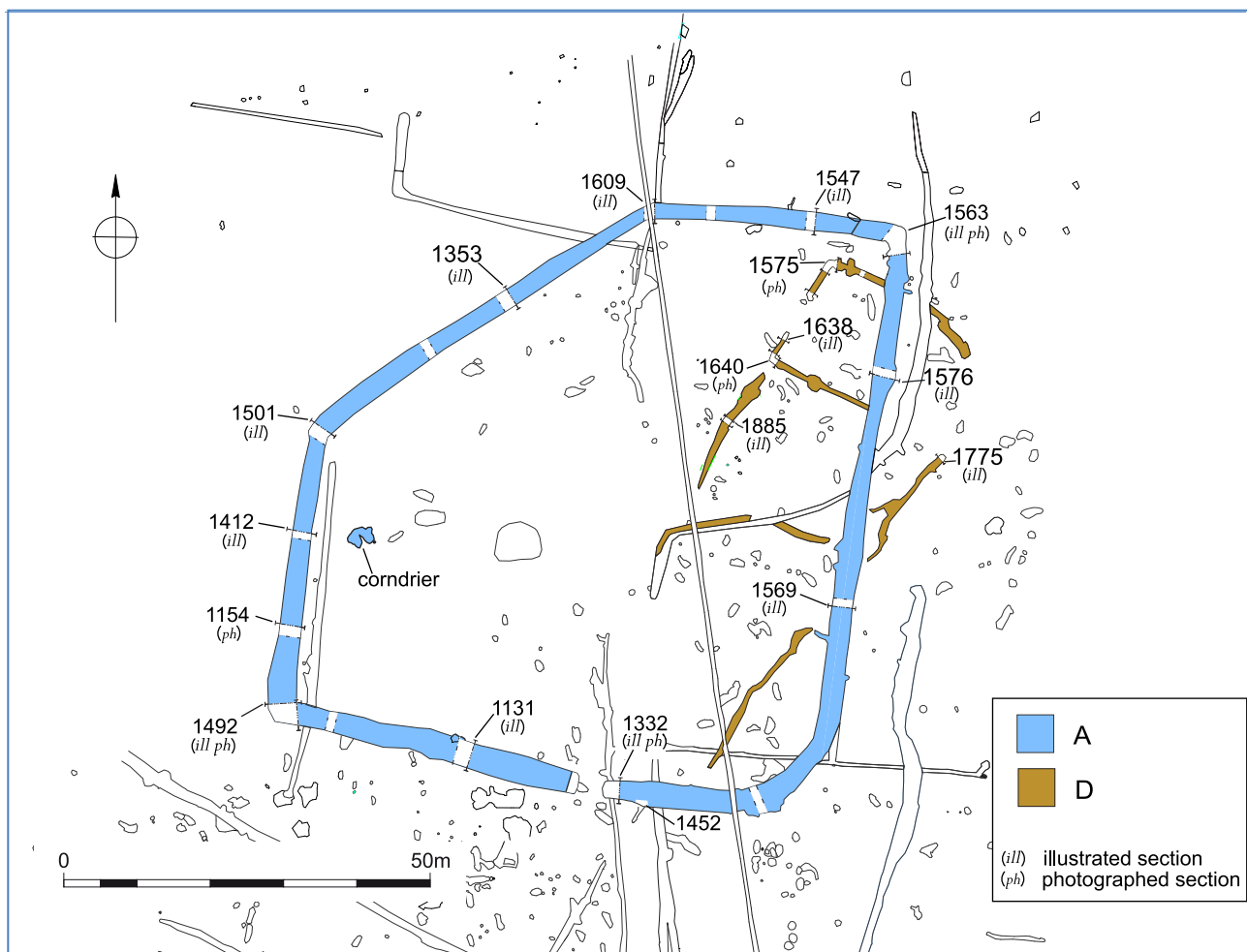


Figure 18: Enclosures A and D: phase plan

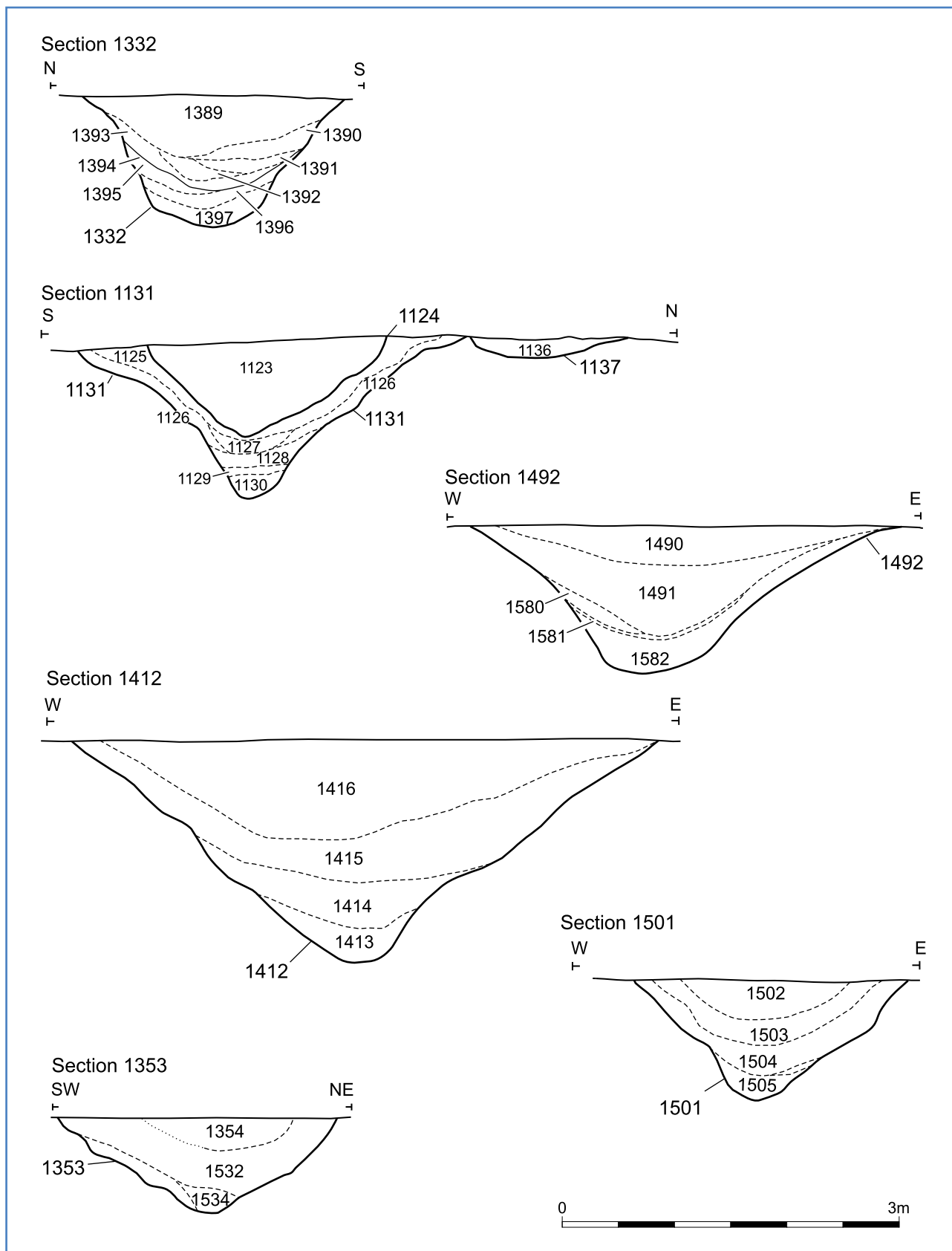


Figure 19: Enclosure A: sections (south and west sides)

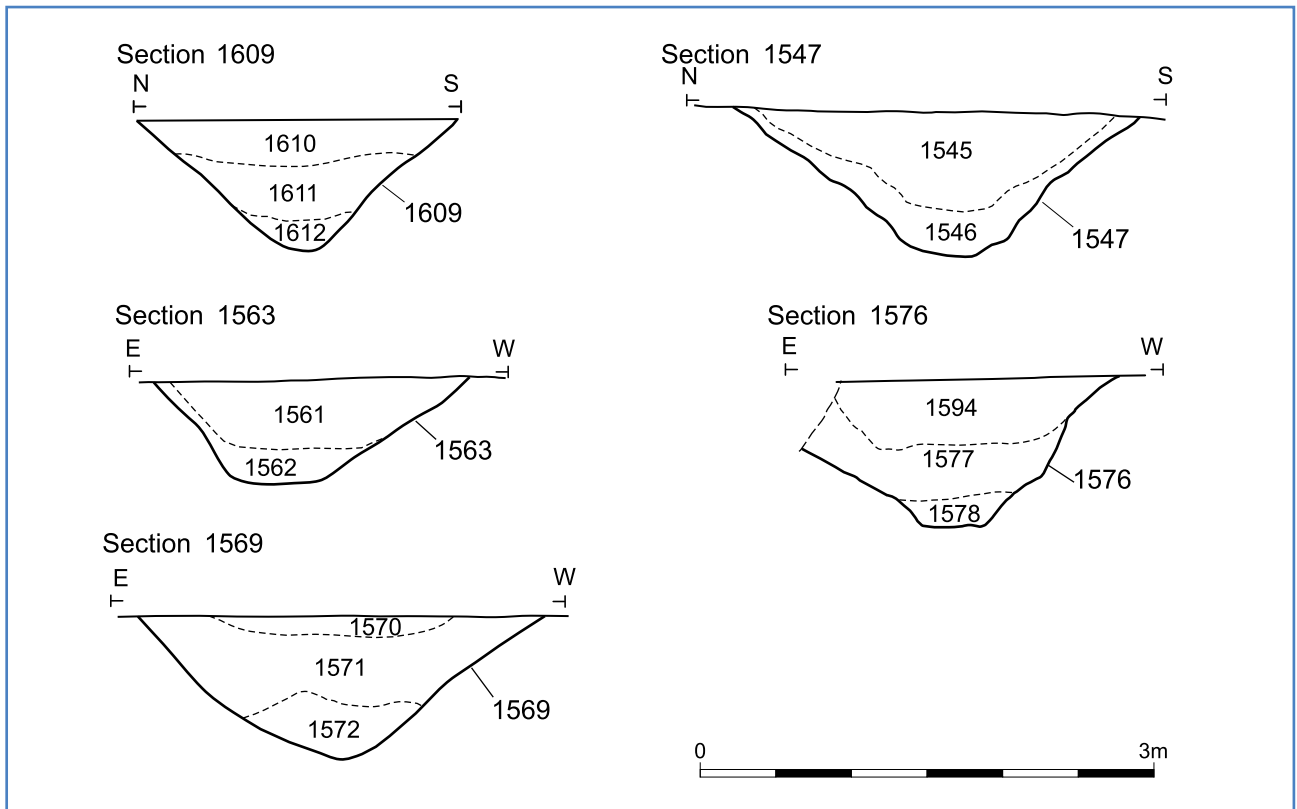


Figure 20: Enclosure A sections (north and east sides)



21.1 Entrance Terminus 1332 (facing east)



21.2 South-west corner 1492 (facing east)



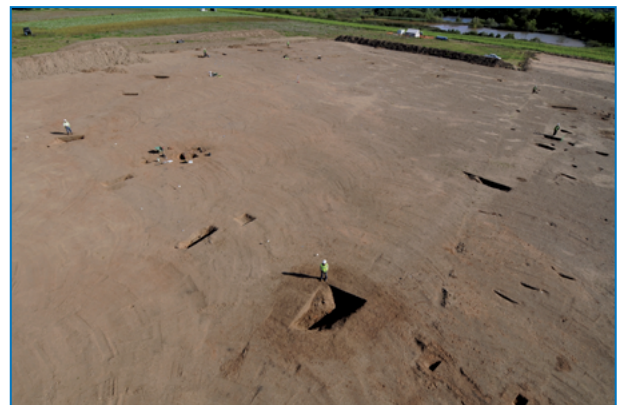
21.3 North-east corner 1563 (facing south)



21.4 1154 (facing south)



21.5 East side of enclosure (facing north)

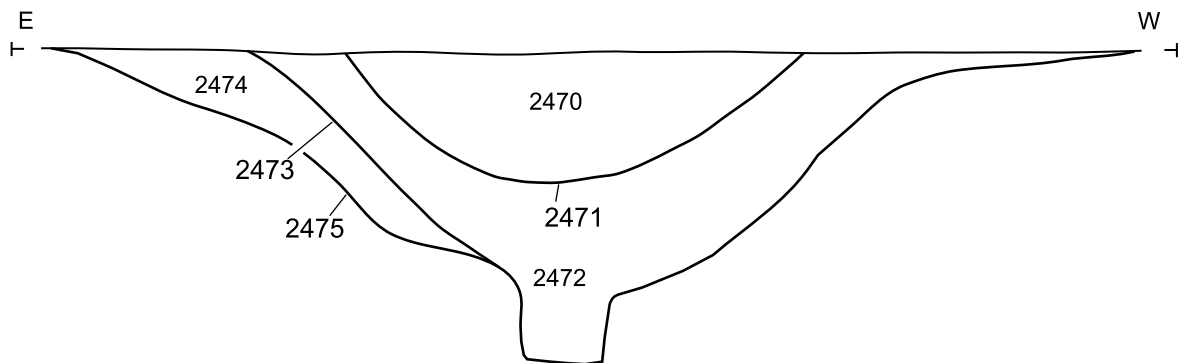


21.6 Aerial view (from south-west)

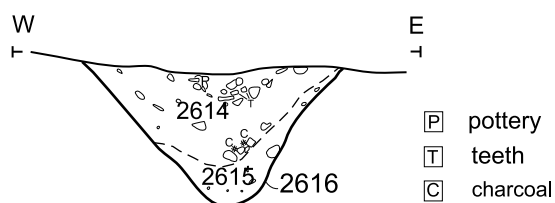
Figure 21: Enclosure A: photographs

Enclosure B2:

Ditch 2473, 2475 (CG 2265)



Ditch 2616 (CG 2600)

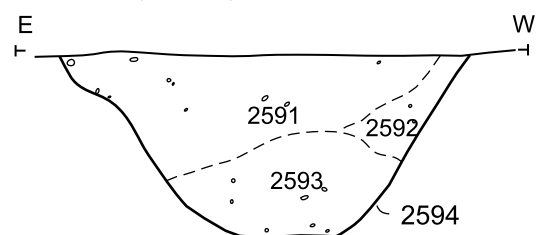


Enclosure B3:

Ditches 2537 (CG 2575)

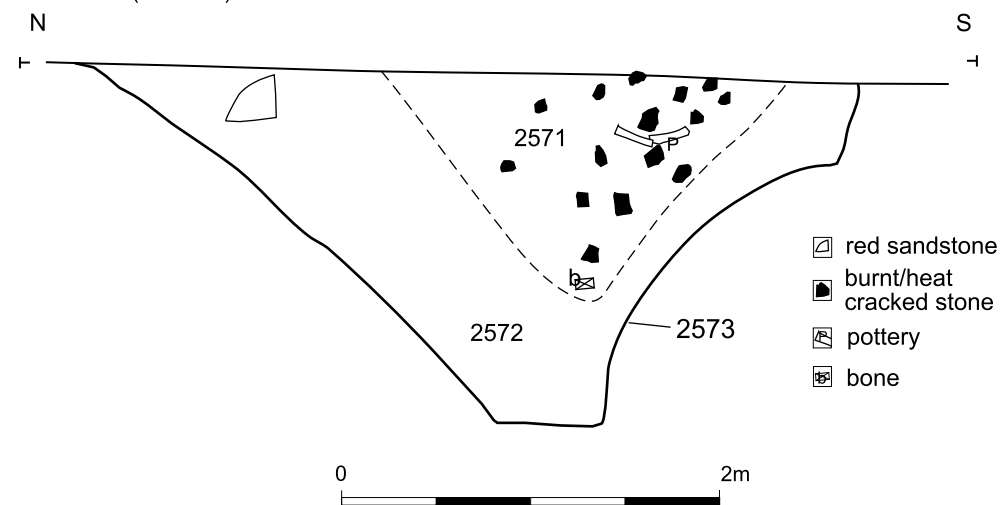


Ditch 2594 (CG 2575)



Enclosure B4:

Ditch 2573 (CG 2606)



0 2m

Figure 22: Enclosure B2, B3 and B4: sections



23.1 B2 Terminus 2543 (CG2265; facing west)



23.2 B2 Terminus 2554 (CG2600; facing east)



23.3 B2 Main enclosure - representative section on north side (2590; CG2265; facing east)



23.4 B3 Terminus 2999 with potential post setting in base (facing north)



23.5 B3 Terminus 2490 (facing south)



23.6 B3 Internal sub-division – north side representative section 2737 (facing east)

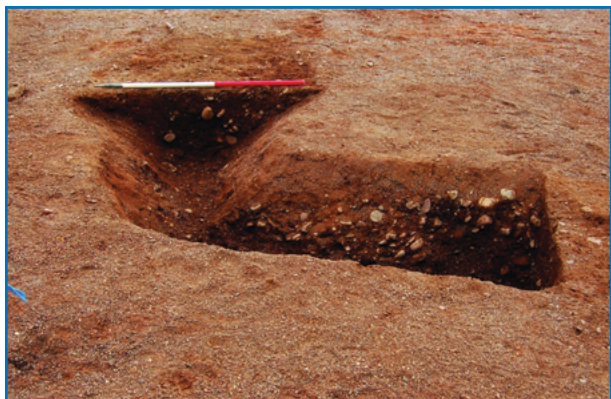
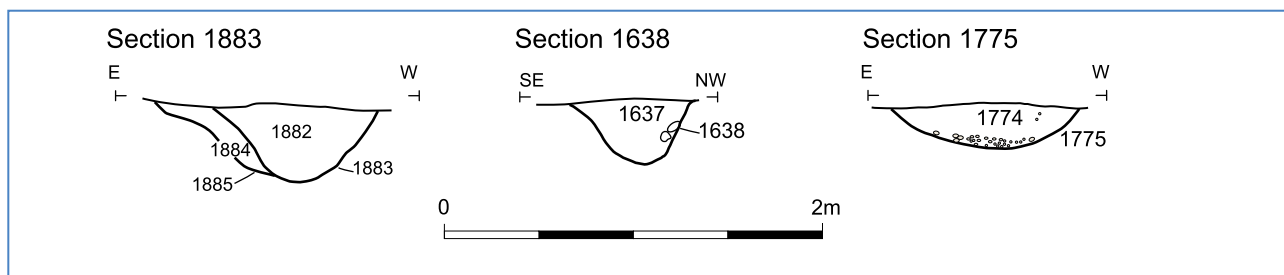


23.7 B4 Terminus 2663 (facing west)

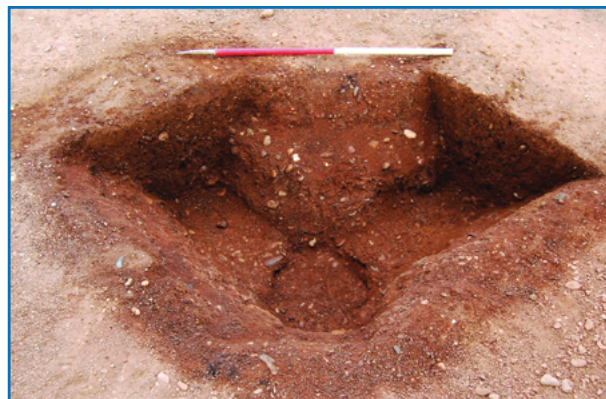


23.8 B4 Internal sub-division - Terminus 2685 (facing east)

Figure 23: Enclosures B2, B3 and B4: photographs



24.1 NW corner (section 1640)



24.2 SW corner (section 1575)

Figure 24: Enclosure D: sections and photographs

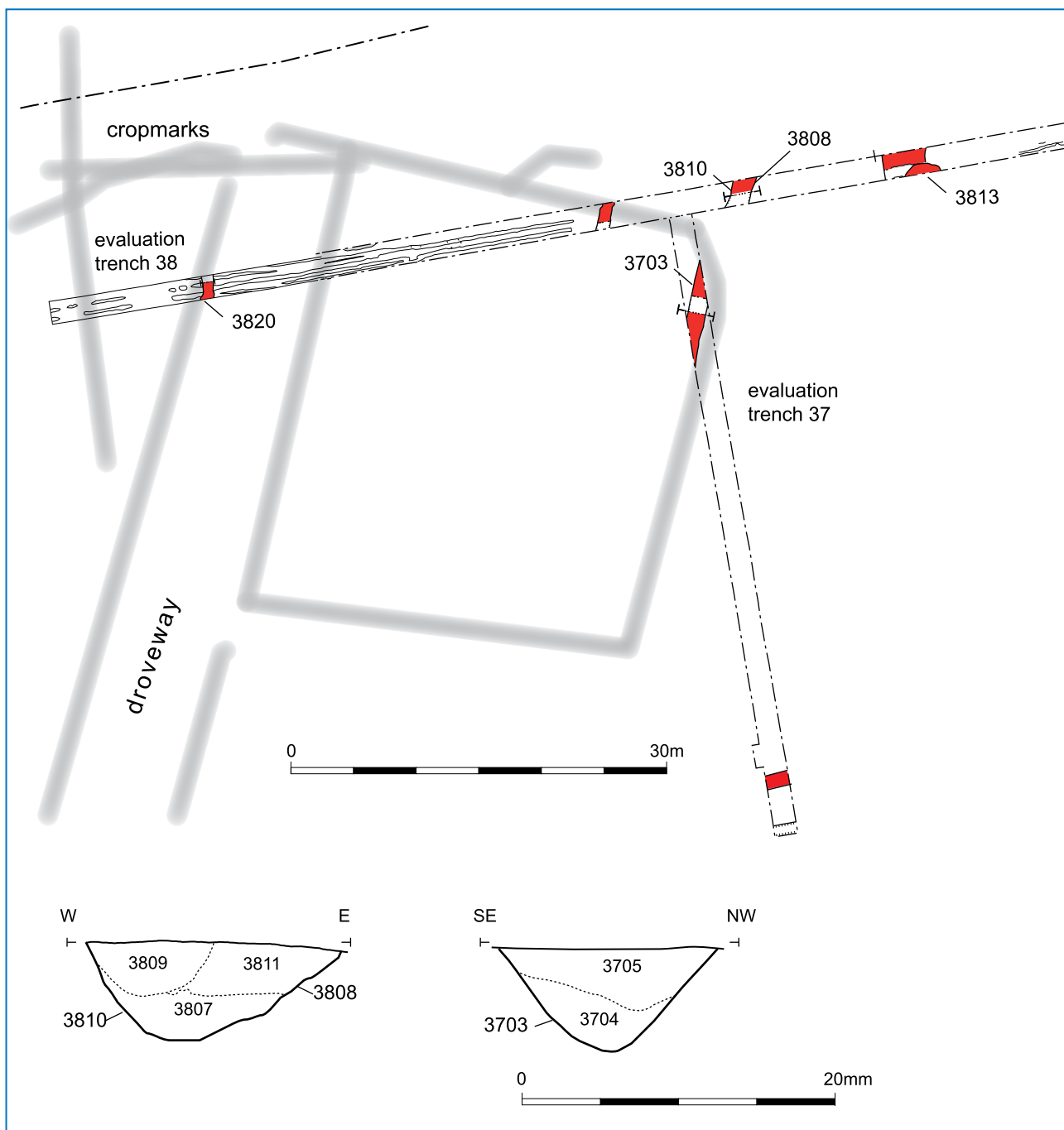


Figure 25: Enclosure E: plan and sections



Figure 26: Pit 3813 with dumped pottery

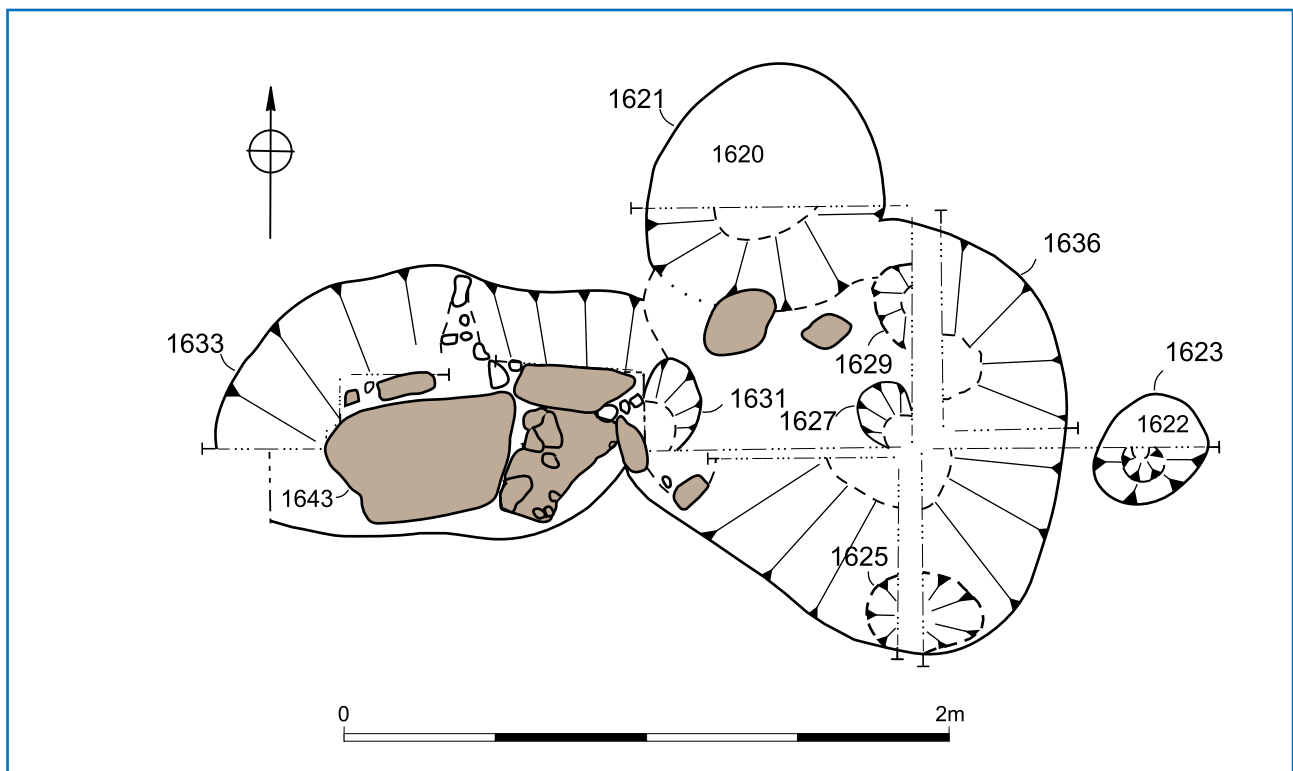


Figure 27: Corndrier CG 1634

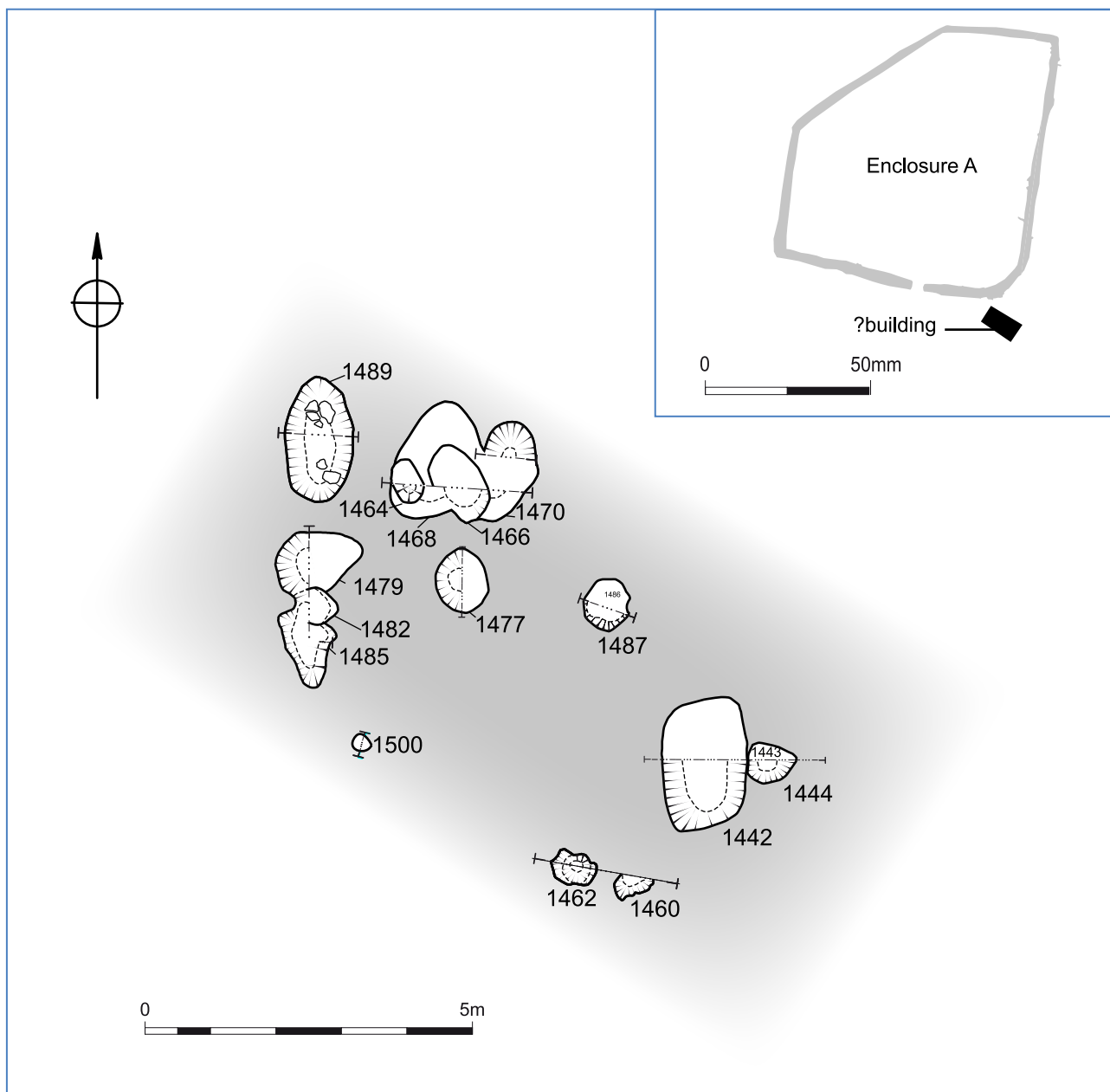


Figure 28: Timber building (CG 1896)



Figure 29: Early medieval deposits: plan

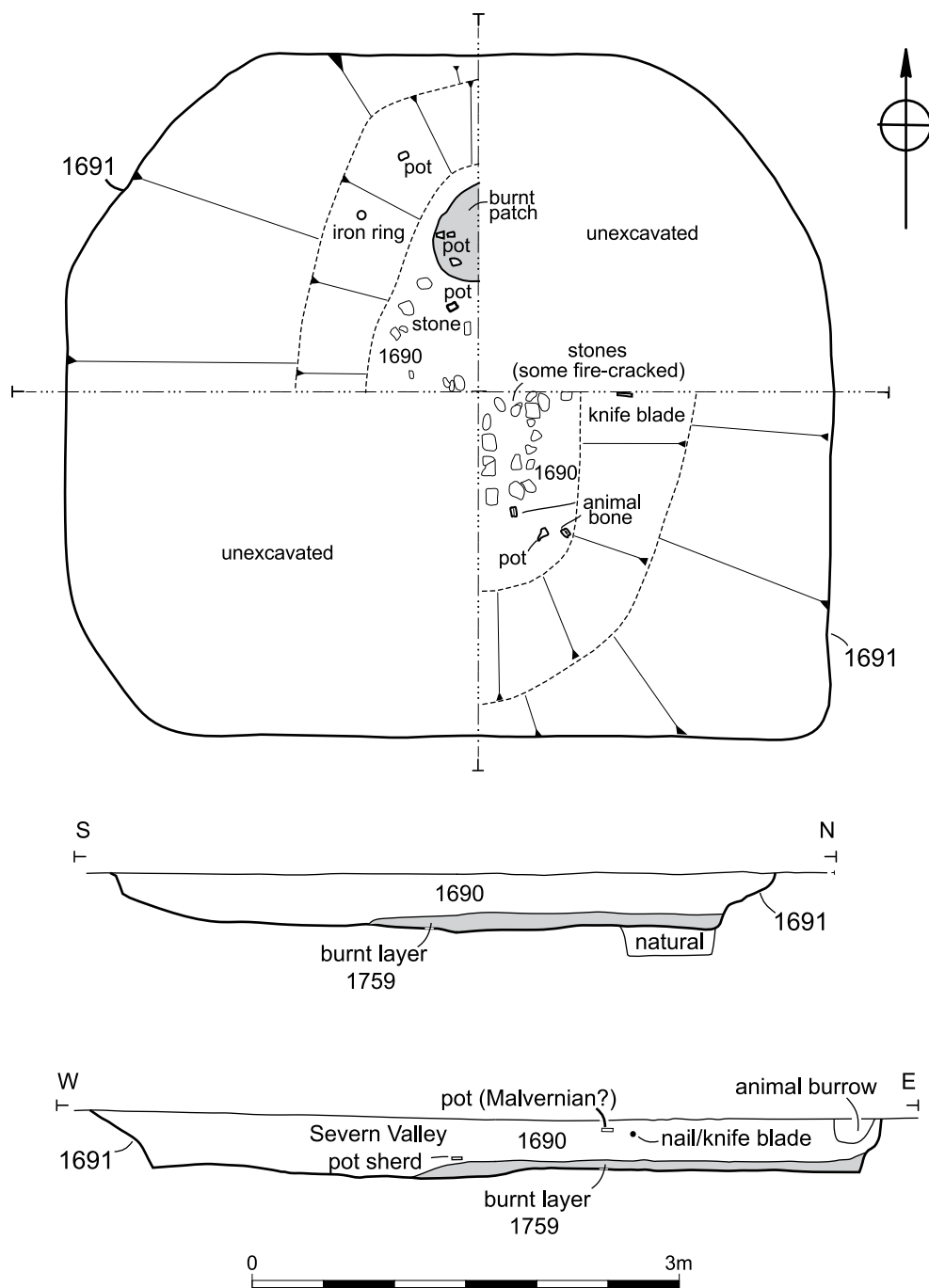


Figure 30: Early medieval Sunken Featured Building 1691: plan and sections

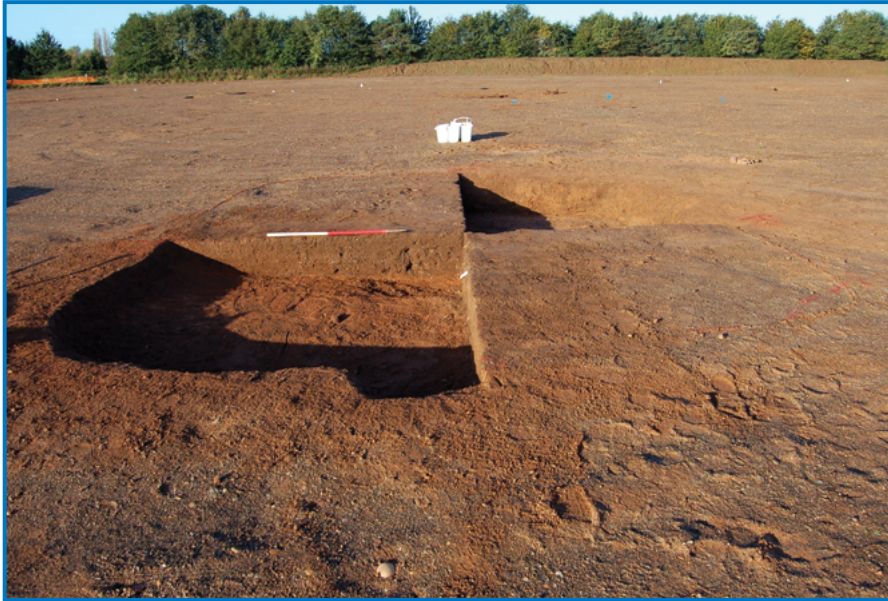


Figure 31: Early medieval Sunken Featured Building 1691

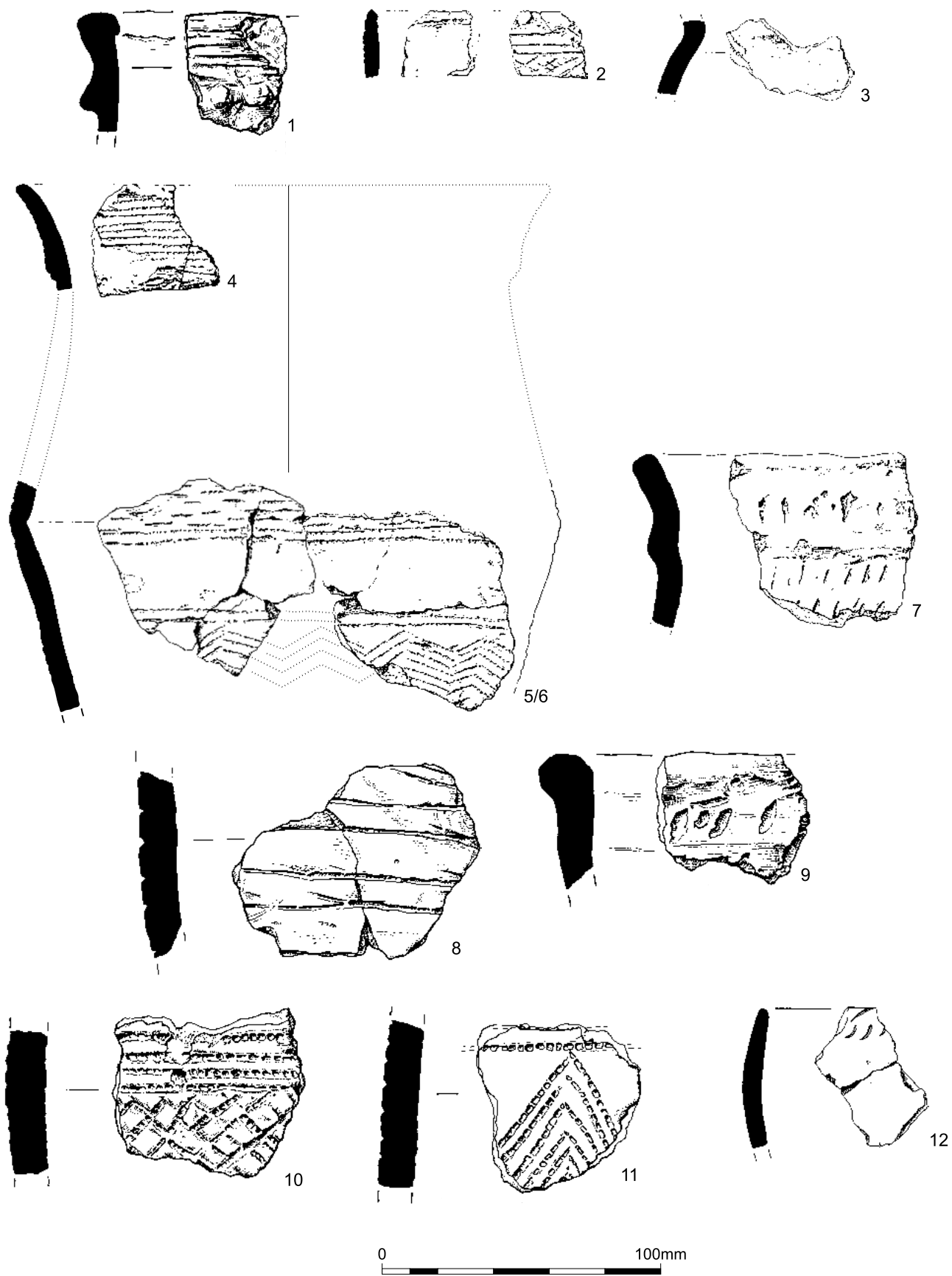


Figure 32: Early prehistoric pottery

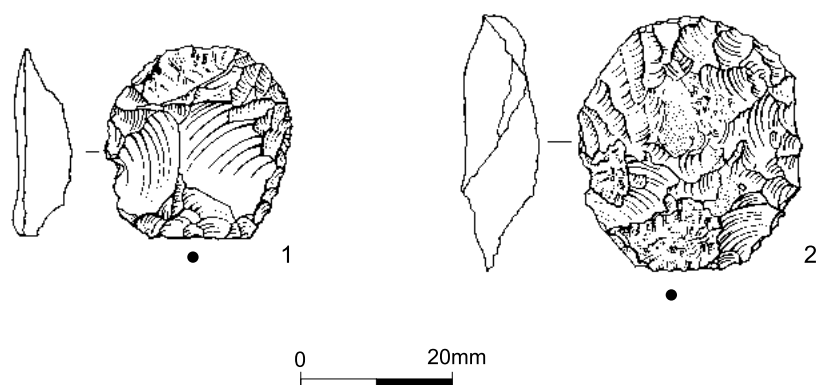


Figure 33: Worked Flint

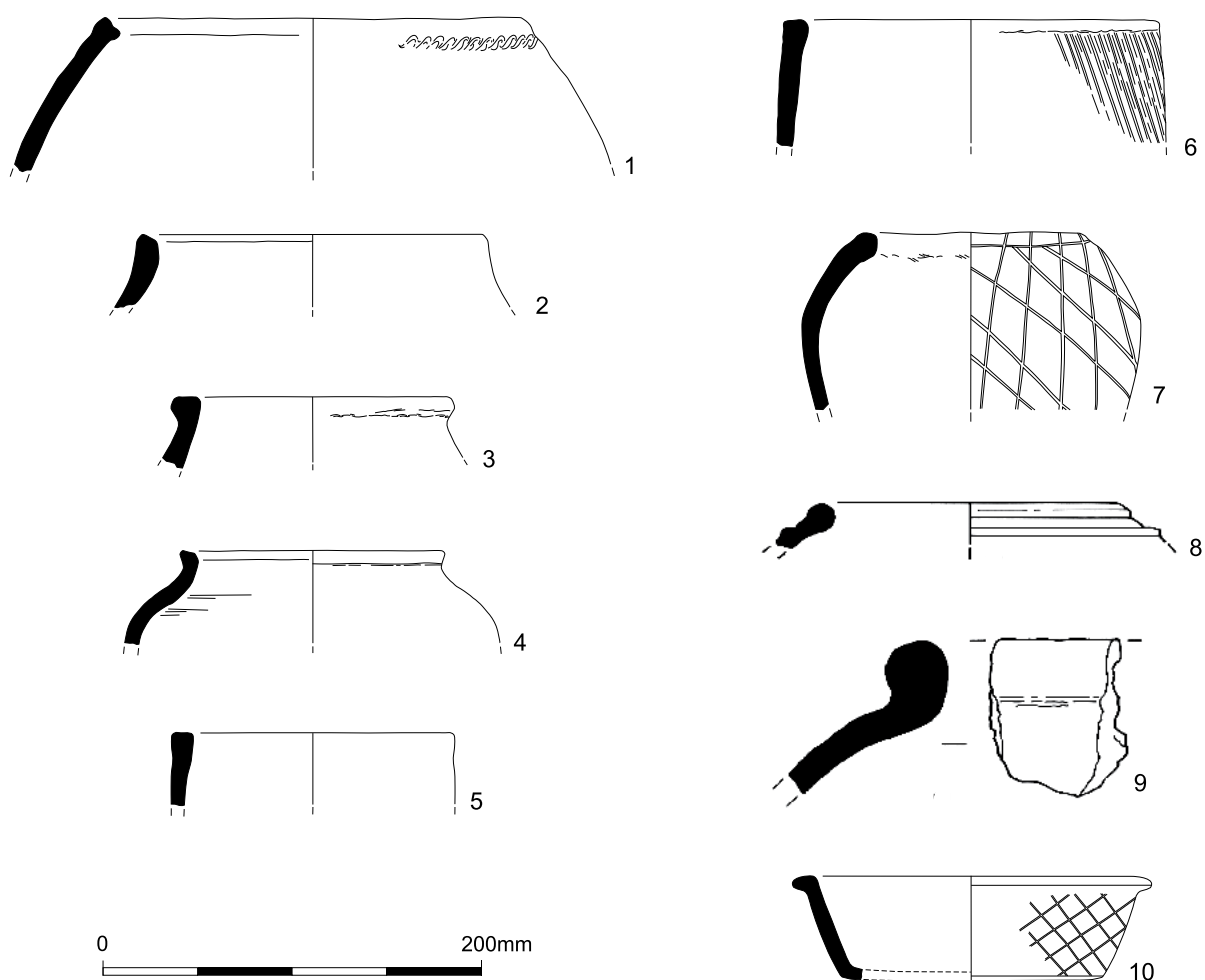


Figure 34: Iron Age and Roman pottery (Cat nos 1–10)

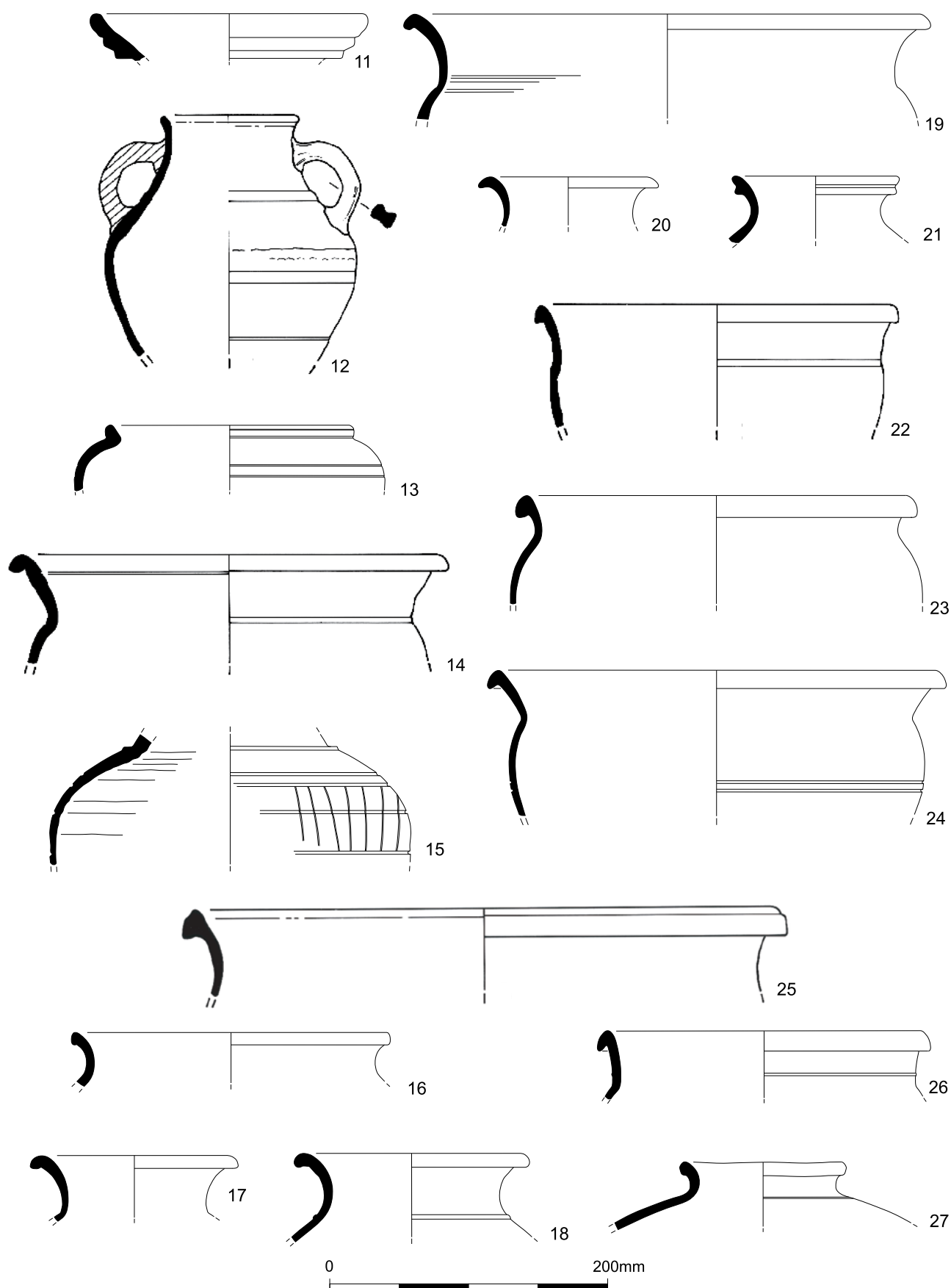


Figure 35: Roman pottery (Cat nos 11–27)

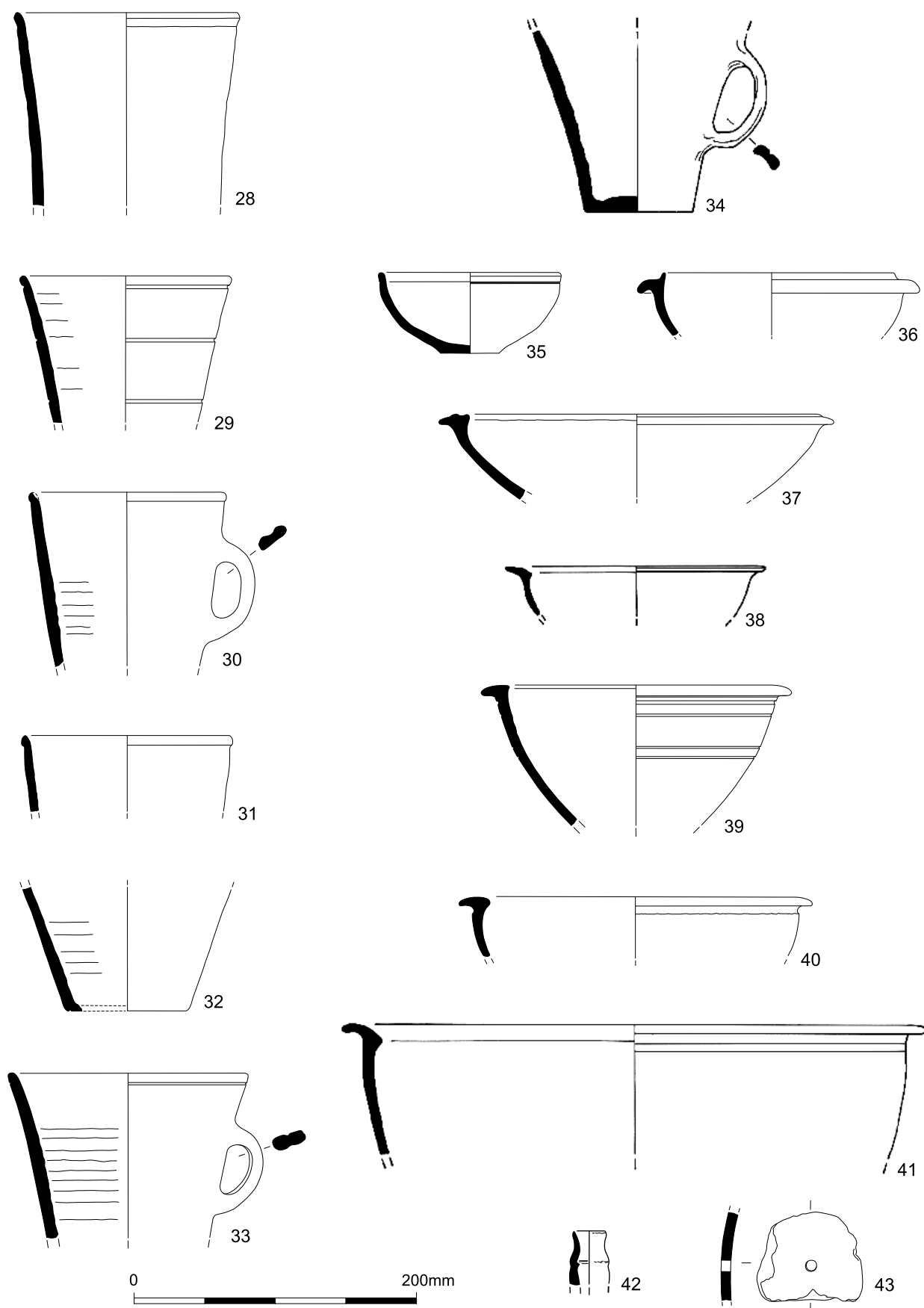


Figure 36: Roman pottery (Cat nos. 28–43)

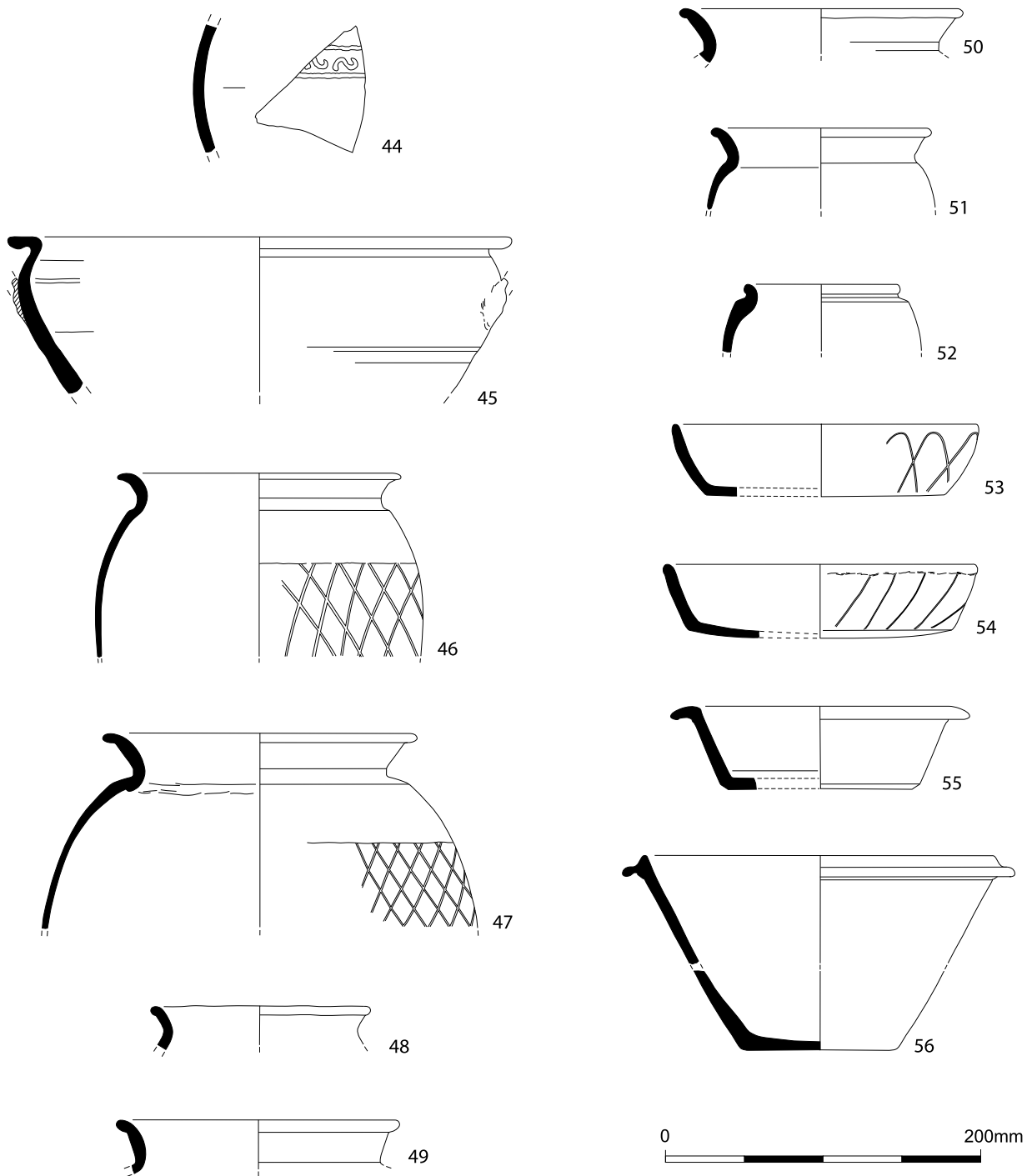


Figure 37: Roman pottery (cat nos. 44–56)

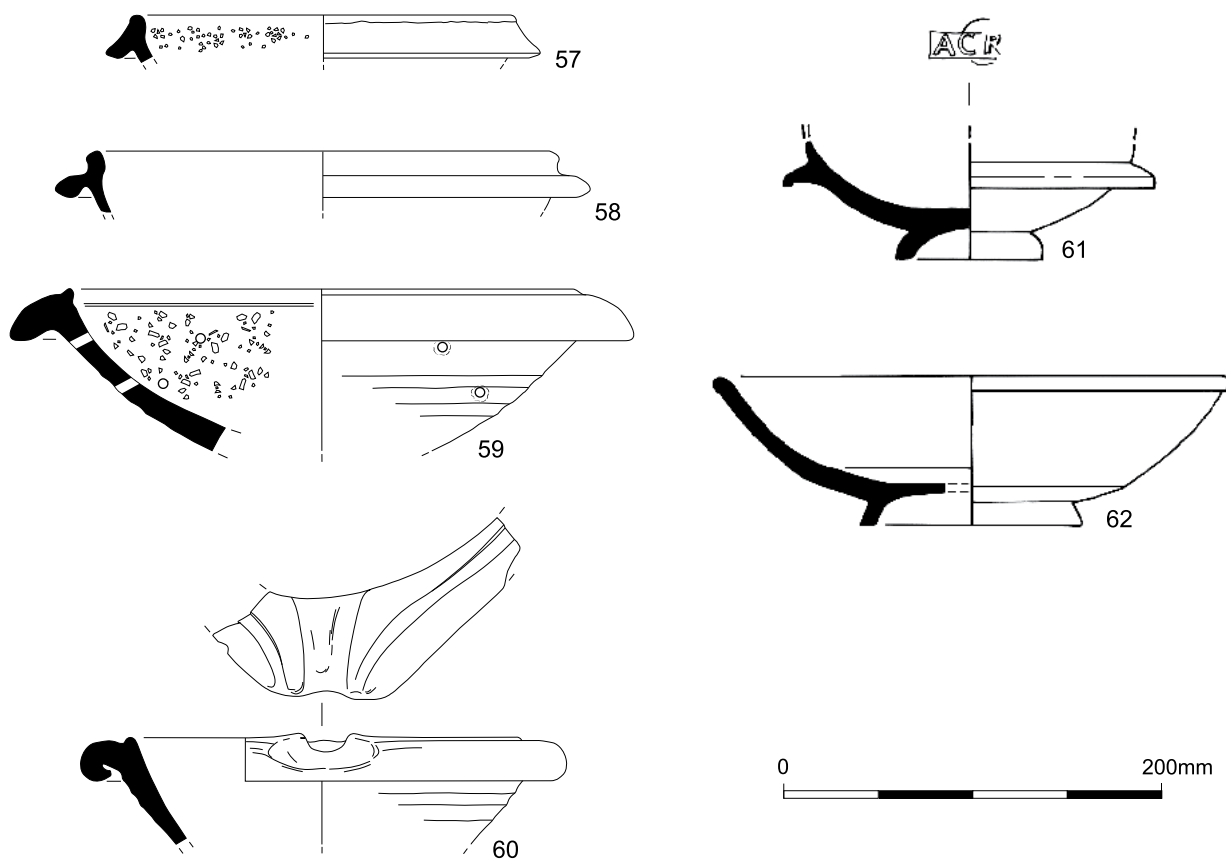


Figure 38: Roman pottery (Cat nos. 57–62)

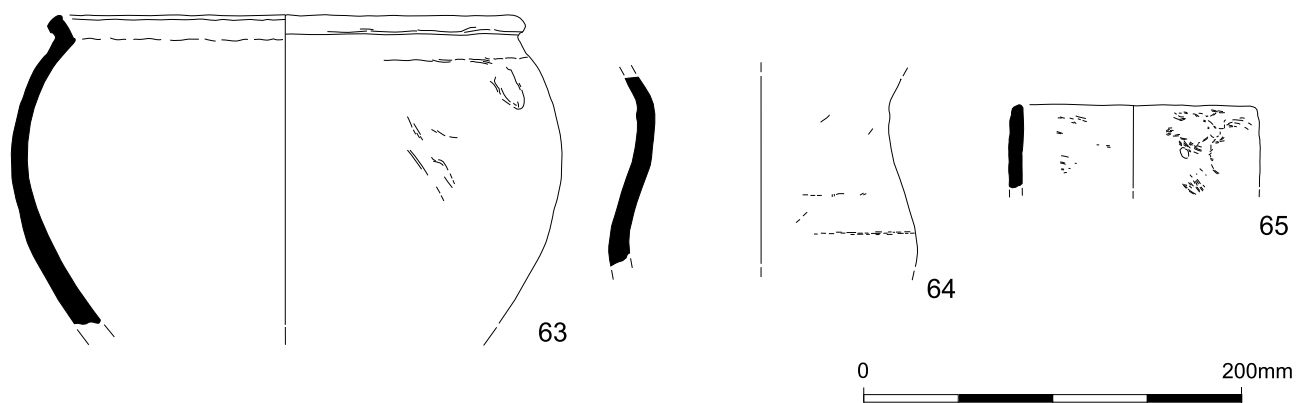


Figure 39: Early medieval pottery (Cat nos 63–65)

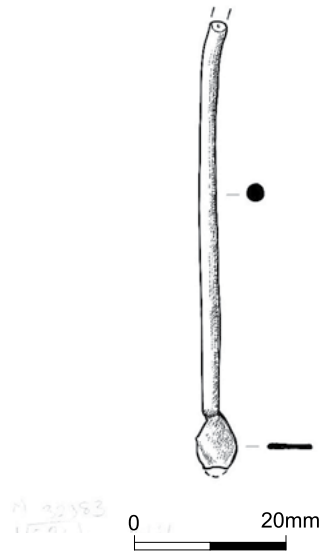


Figure 40: Copper alloy ligula

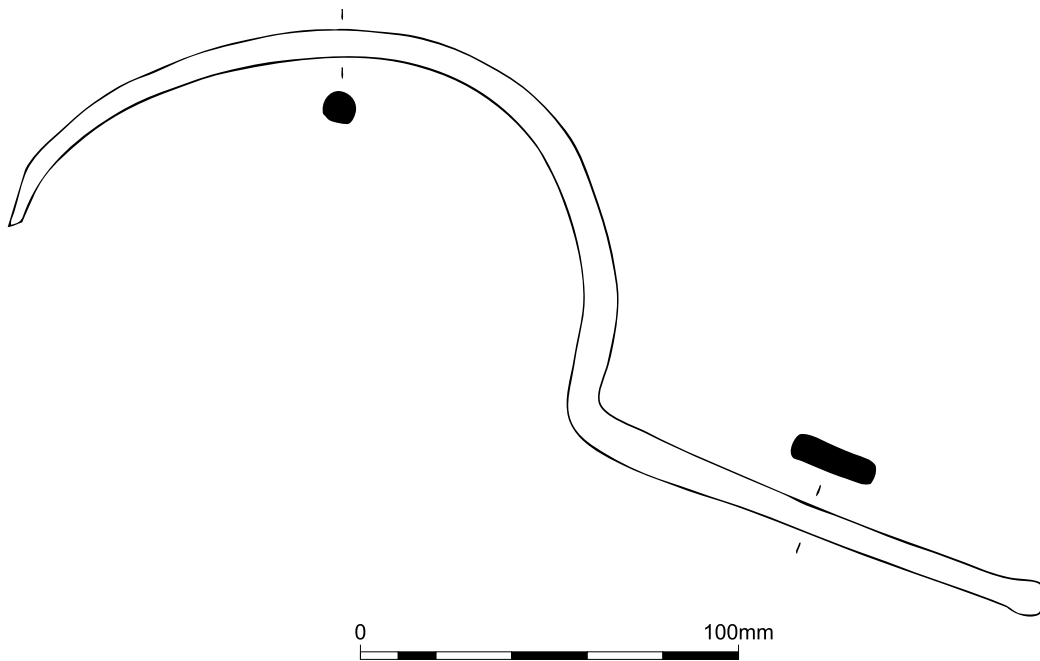


Figure 41: Iron latchlifter



Figure 42: Plough scarring

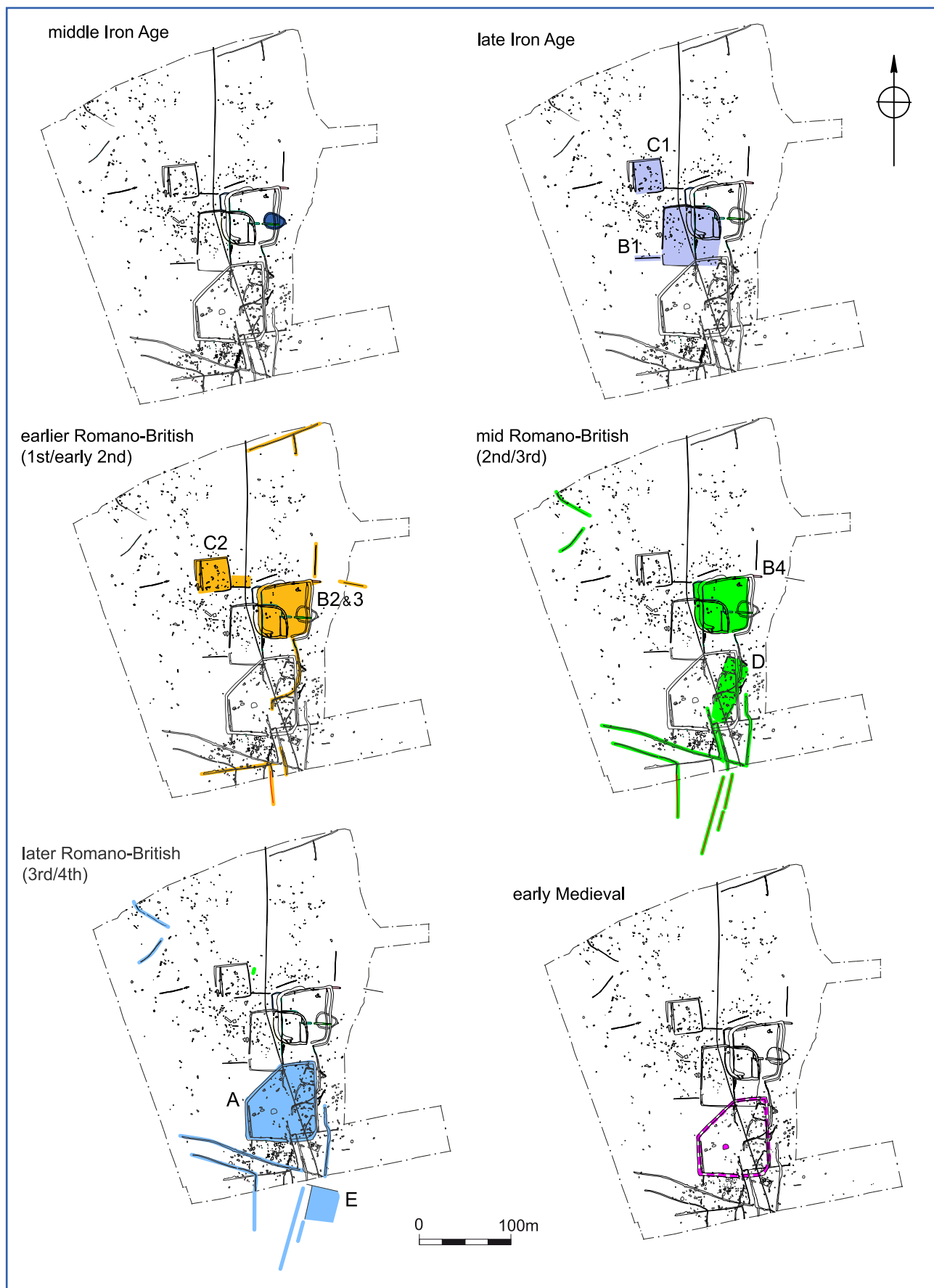


Figure 43: Phase summary



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