

# THE EXCAVATION OF AN ENCLOSED IRON AGE SETTLEMENT AT HALLAM FIELDS, BIRSTALL, LEICESTERSHIRE

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with contributions from:

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The excavation of a mid to late Iron Age enclosed settlement, at Hallam Fields, Birstall, has added significantly to our understanding of small Iron Age farmsteads in the region. Often only parts of the enclosure settlements are investigated, whereas the example here was subject to controlled and detailed full excavation. This article presents the results of the excavation, and utilises the finds and environmental data to illustrate how people of the fifth to third centuries BC controlled and utilised space for a variety of activities.

## INTRODUCTION

University of Leicester Archaeological Services carried out an archaeological excavation at Hallam Fields, Birstall, Leicestershire, centred on SK 58845 10274, from November 2004 to April 2005, where, including evaluation and excavation, a total of 2.8ha was stripped and recorded (Figs 1 and 2). The work was undertaken as part of an archaeological mitigation strategy prior to proposed mixed-use development on behalf of Jelson Ltd.

The excavation revealed evidence for a middle Iron Age enclosed settlement located in the Soar valley, on the edge of the gravel terrace. The site, originally identified as a cropmark, comprised of a large 'D'-shaped enclosure lying adjacent to a smaller slightly more irregular 'D'-shaped enclosure. Within the enclosures were a range of associated settlement features, including round-houses, sub-enclosures, pit groups and metalworking evidence. Some activity appears to have continued into the late Iron Age.

This paper presents the summary of the results. A full report is available on the Online Access to the Index of Archaeological Investigations (OASIS) held by the Archaeological Data Service at the University of York under ID: universi1-61162, available at: <http://oasis.ac.uk/>.

### Site description, topography and geology

The site is located within the county of Leicestershire, 6.5km north of Leicester city centre beyond the northern housing limits of Birstall (Fig. 1). The application area in total covered 71.51ha, lying south of the A46 dual carriageway, divided by the A6 road and bounded to the west by the line of the Great Central Railway. The main development area to the west of the A6 comprised 62.2ha. It was these fields, following geophysical survey and fieldwalking, which were subject to the archaeological excavation.

The western area of the site is situated on a slight hill, *c.* 87m above OD, which slopes down to the west and south-east to around 60m OD. East to west across the site the geology consists of glacial drift (boulder clay), sand and gravel, river gravel and Mercia mudstone substrata (Geological Survey of Great Britain Sheet 156). Some colluvial deposits were also present. Within Area 1, the main excavation area, the natural substratum consisted of sands and gravels.

### BACKGROUND

Prior to the excavation in 2004–05, the application area had been investigated for archaeological potential, firstly by a walkover survey in 1997 and desk-based assessment in 2000 (Grimley *et al.* 2000), which was followed by a fieldwalking survey (Priest 2001) and geophysical survey (Butler 2001) in 2001. Further fieldwalking and geophysical surveys took place in 2003 and 2004 (Speed and Coward 2004; Sabin 2004), and a trial-trench evaluation in 2004 (Speed 2004).

The desk-based assessment identified that the area had some archaeological potential, with eight known sites within the area as well as four areas of medieval ridge and furrow. The assessment identified evidence for Neolithic, Bronze Age and Iron Age activity in the area. Several flint scatters had been identified during fieldwalking, walkover surveys and watching briefs in this area prior to the 2001–2004 surveys. Of particular note was a cropmark showing a potential Iron Age enclosure.

Fieldwalking surveys carried out in 2001 and 2003 (Priest 2001; Speed and Coward 2004) revealed three possible areas of prehistoric activity. Geophysical surveys undertaken in 2000 (Butler 2001) and 2004 (Sabin 2004) also identified significant areas of archaeological potential. A trial trench evaluation was carried out in 2004 (Speed 2004), comprising 84 trenches (shown on Fig. 3) located to target the areas of archaeological potential based on the earlier surveys. Archaeological activity was identified within three areas (Area 1, 2 and 3 – see Fig. 3); in the remaining fields very little archaeological evidence was identified.

### PROJECT AIMS AND METHODOLOGY

The aim of the project was to record archaeological remains to be affected by the proposed development; to establish the location, extent, date and significance of the deposits; and define the quality and state of preservation of these deposits.

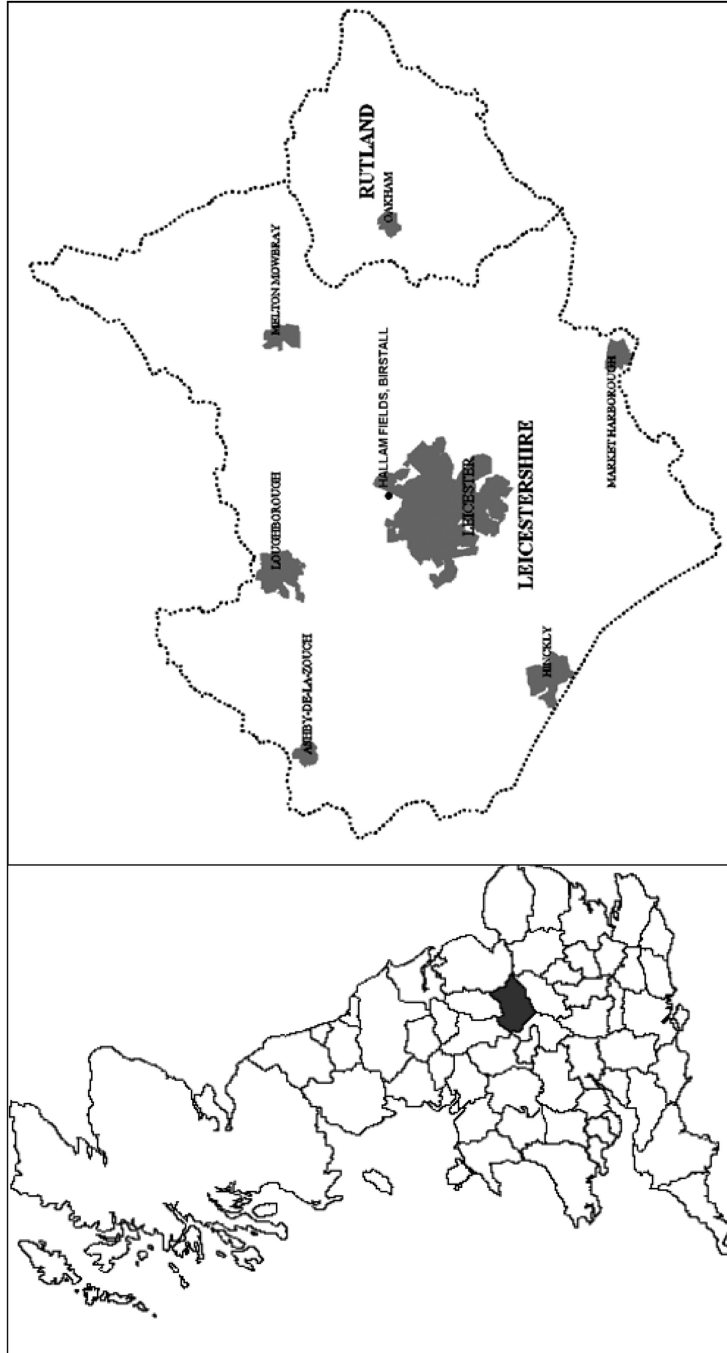


Fig. 1. Site location within the county of Leicestershire.

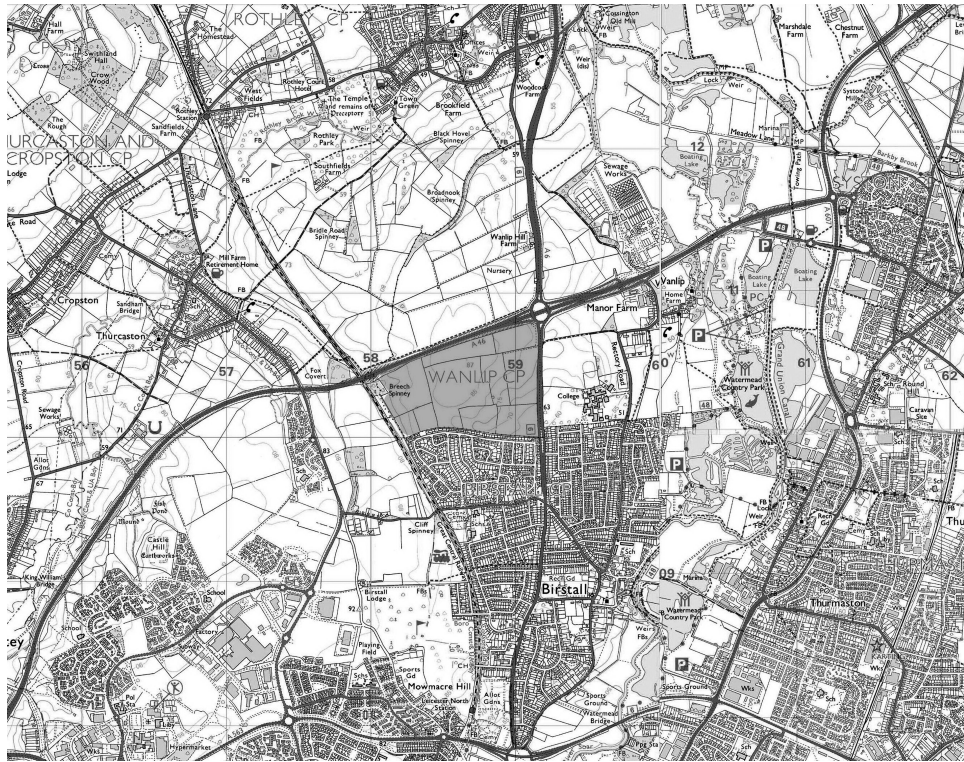


Fig. 2. Site location plan (shaded area), 1:25,000.

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Following the desk-based assessment, fieldwalking surveys, geophysical surveys and trial trench evaluation, the site was identified as having the potential to address a number of research aims, both regional and national, as defined in Cooper (2006) and Willis (2006), and Haselgrove *et al.* (2001). Key research themes included study of the evolution of Iron Age rural settlement, dating activity, the use of settlement and landscape space, the study of Iron Age buildings, deposition patterns, use of the East Midlands claylands, and the study of the hinterland of Leicester.

Three areas were subject to open-area excavation (Fig. 3), targeting areas previously identified as containing substantial archaeological features during the evaluation (Speed 2004). The excavations were carried out within three fields of the development area. Area 1 in the south-east corner of the development contained the most complex archaeological evidence. Areas 2 and 3 were slightly expanded upon following the evaluation. Where possible linear features (gullies or ditches) were evenly sampled, several sections being excavated at even intervals, each 1.5m in length. A limited programme of phosphate sampling was carried out within Area 1.



Fig. 3. Location of excavation areas 1, 2 and 3, and evaluation trenches.

PRE-IRON AGE ACTIVITY  
*(with Patrick Marsden and Lynden Cooper)*

The earliest activity within the excavation area was indicated by the presence of a Mesolithic worked flint scatter across the site, dated to *c.* 9500–4500 BC. Some 151 worked flints were recovered from the excavation; however, a large proportion (83 per cent) were from middle Iron Age features and are therefore likely to be residual. Evidence of activity in the Neolithic period is represented by a single Peterborough ware pottery sherd, dated to *c.* 4000–2000 BC. This was residual material in an Iron Age feature, but does indicate the presence of human activity in the area during this time. Tree-throw pits/hollows were identified and recorded across the site; being especially common between the Iron Age enclosures I and IV, only one tree-throw pit contained some worked flint.

Immediately to the east of enclosure I ditch (location on Fig. 11) lay two pits dating to the early Bronze Age (*c.* 2000–1500 BC). The pits contained 233 sherds of early Bronze Age pottery and 11 worked flints. There were three pits within the group, [644]/[646] being stratigraphically the earliest, having been cut by [642]/[690] on the west side and the much later Iron Age/Roman pit [640] on the east side (Fig. 4).

The two pits containing the Bronze Age pottery ([642] and [644]) were of similar shape and size, being sub-oval and measuring *c.* 2.5m × *c.* 1.3m. The relationship between them could not be ascertained during excavation; it is entirely possible that they are contemporary features, back-filled at the same time. Both pits contained two fills, the lower fill of each contained within the separate pit-cuts, whilst the secondary fill covered both pits (643). The primary fill of [644] (645) contained 109 sherds of Bronze Age pottery, while the primary fill of the other pit [642] (689)/(691) contained 36 sherds. Overlying both of these was (643), a dark reddish-brown sandy-silt, containing 87 sherds of Bronze Age pottery.

In total from these features, 233 sherds of Bronze Age pottery, weighing 2,937g, came from at least eight vessels, probably all Collared Urns. The fragments of rim, collar, upper body and base indicate that these belong to the later end of the Collared Urn tradition if the modification and extension of the criteria of Longworth (1984) proposed by Burgess (1986) are accepted, broadly corresponding to Longworth's Secondary series. A considerable number of sherds were recovered from a Collared Urn in context 643 and a number of other contexts (no. 6 on Fig. 5). Further reasonably-sized rim and collar sherds come from two other urns (no. 5 on Fig. 5). These three vessels would appear to show a lack of Burgess's early traits, such as internal decoration below the rim. They conform to some of the later criteria by having no decoration under the collar, apart from finger impressions just beneath it, as well as a lack of necks or shoulders (bipartite). However, one vessel (no. 7 on Fig. 5) displays possible whipped cord decoration, which is characteristic of earlier vessels. A thinner-walled Collared Urn (no. 2 on Fig. 5) is also present amongst the material. This displays twisted cord decoration in geometric motifs, perhaps suggesting a later

date. Three other Collared Urns are represented by more fragmentary rim and collar sherds (nos 1 and 8 on Fig. 5). These all display rather crude impressions of uncertain origin on the outer rim and collar, but it is not clear whether these are whipped cord or not. Otherwise the vessel forms appear to be bipartite, like the other urns. However, all this reflects the problems of applying Longworth's criteria to date Collared Urns, and considerable overlap is likely between many of the proposed datable traits. A base (no. 4 on Fig. 5) is probably also from a Collared Urn, although it could be from an urn of the Deverel-Rimbury tradition. Another type of vessel, a cup (no. 3 on Fig. 5), may be of a similar date to the Collared Urns. Urns are sometimes found in a more complete state; the sherds here have clearly been heavily truncated by later activity, perhaps from both Iron Age activity (including pit digging as demonstrated by pit [640]) and modern ploughing. This has created a scattered effect of the urn sherds (Fig. 4). The majority of the sherds come from pit [644], which was much shallower than [642].

Within pit [642] six worked flints were identified, while from pit [644] four were recovered consisting of concave scrapers, a scraper with straight-edge retouch, and another scraper used an older (slightly patinated) flake support. Such recycling has been seen at other later Bronze Age sites in the area – for example, Willow Farm, Castle Donington and Cossington barrows (Thomas 2008a). The technological aspects of the debitage would also fit within a broad Neolithic-Bronze Age date. The stratified flint from context (643) is remarkably fresh and sharp, further suggesting that it is contemporary. The unmodified flakes are of a very similar flint to the core and may well have derived from it. The utilised flake approaches the dimensions of a blade and is of a different, darker flint than the core.

Although Collared urns are typically associated with cremations, no cremated bone was recovered. This could simply be due to the poor survival within the acidic sandy soil (very little animal bone was recovered from the excavation as a whole). It should be noted that at Cossington, 5km north-east, collared urns were not only found with burial contexts, but also with isolated pits (Thomas 2008a). These vessels are also known from domestic deposits on other sites, such as in East Anglia (Gibson 2002, 96), so the possibility that the deposit simply represents domestic waste should not be discounted as these vessels probably had a variety of uses. However, the presence of freshly worked lithics and some vessels, coming from sources some distance away in the Trent Valley or Yorkshire Wolds, suggests that significance was attached to them and an association with burial practices or ritual activity seems likely. Also of note is that the Iron Age enclosure ditch appears to avoid or respect the area of the Bronze Age pits. This could be an indication that there was some physically de-limiting activity in this area – i.e. a barrow covering the pits? However, the enclosure ditch only narrowly avoids the pits, and this could be regarded as fortuitous rather than avoiding a standing monument.

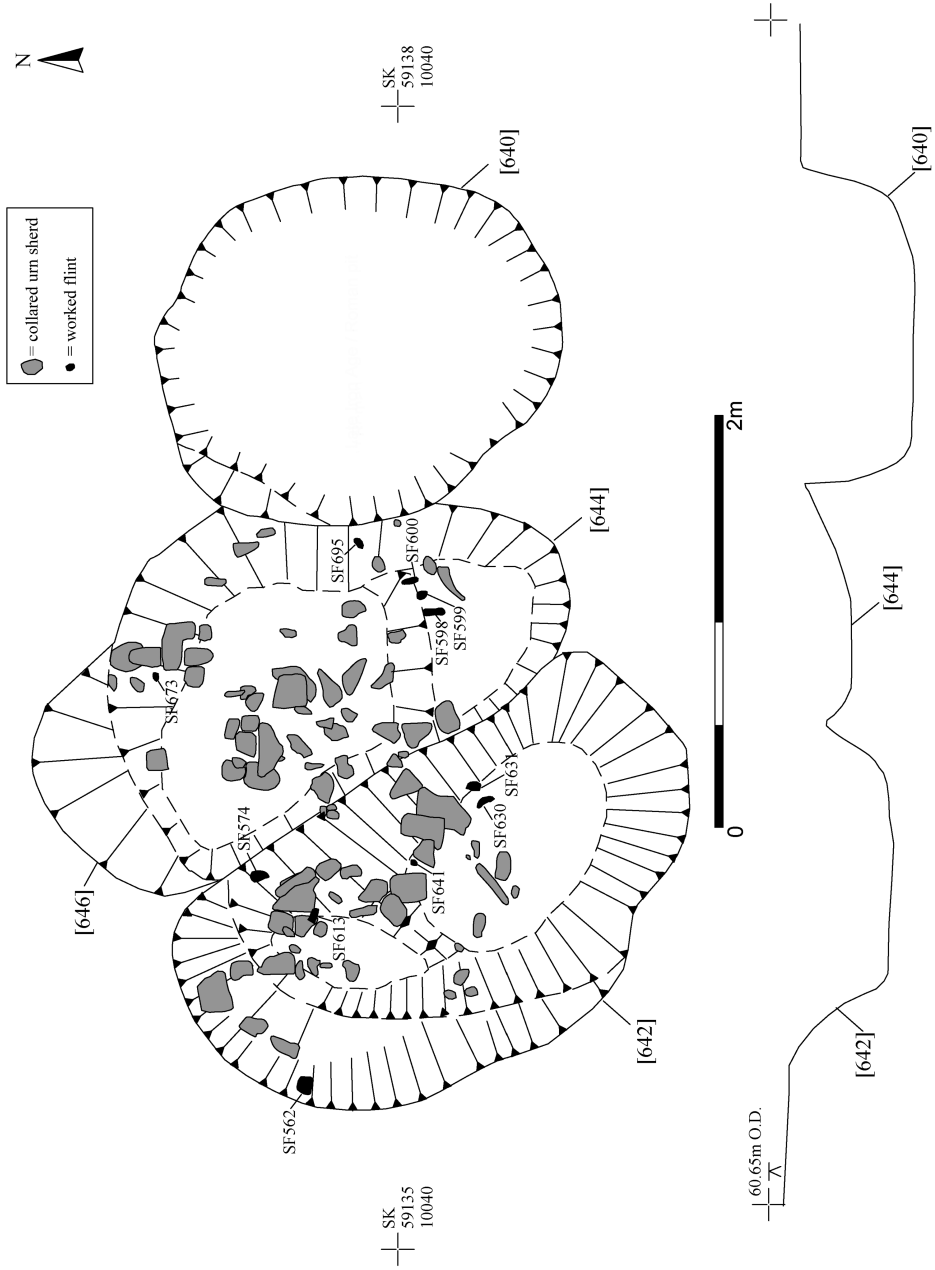


Fig. 4. Pits containing Bronze Age Collared Urn sherds and worked flint.



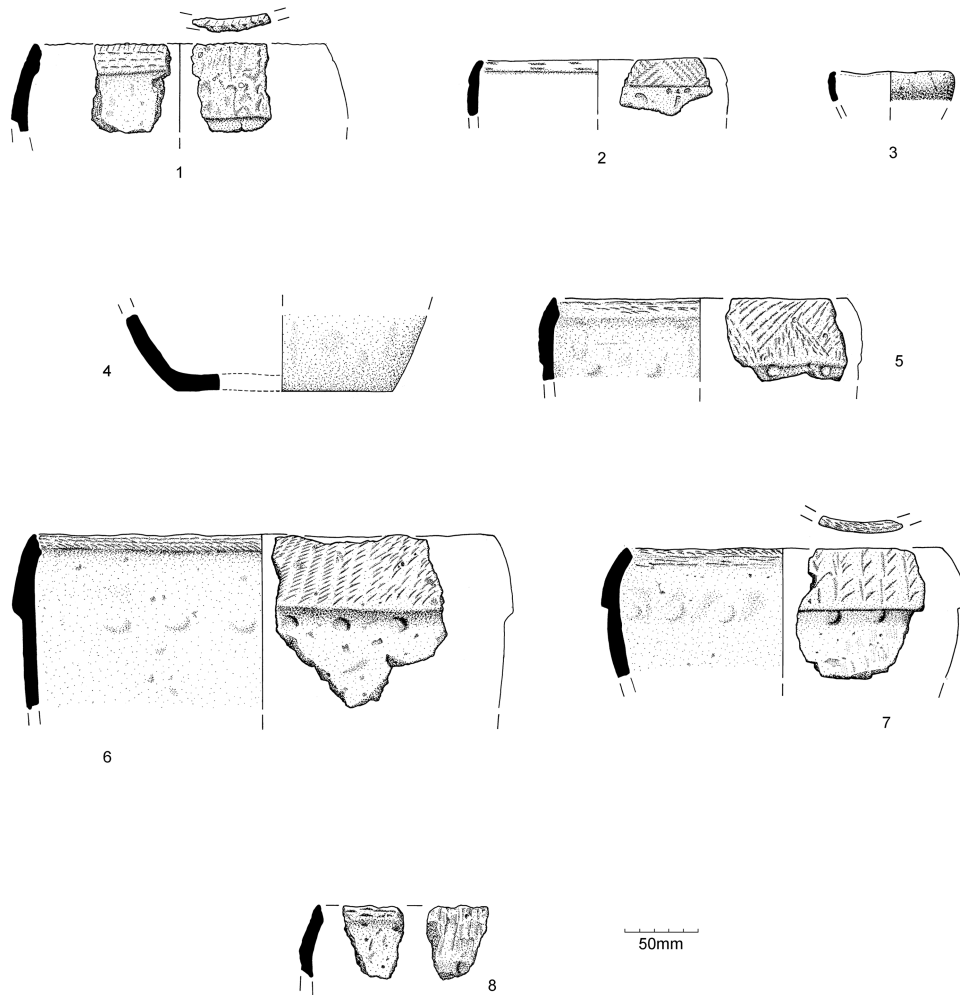


Fig. 5. Illustrated Bronze Age pottery vessels.

### THE IRON AGE SETTLEMENT

The Iron Age settlement at Birstall is located within the Soar valley on a broadly flat terrace, on the edge of river sands and gravels. It is 1.5km from the present course of the River Soar to the east, and 700m east of a stream that feeds into Rothley Brook that lies beyond higher ground to the north-west. The main settlement activity identified is dated to the mid-Iron Age (450–100 BC). During this period a small farmstead was built within a wider established field system. The archaeological and radiocarbon dating evidence indicates that this settlement may have lasted for *c.* 140 years, with the earliest phases of the settlement

Illustration	Description
1	Part collar and rim, rounded inturned. Decoration: impressions of unknown origin on rim and collar, opposing fingernail impressions on rim lip and encircling lines of fingernail impressions on rim internally. Abraded externally and internally. Fabric Fl 1. Collared Urn. Context 643 (cuts 642 and 644), SF 573.
2	Rim, collar and part of upper body, rounded, slightly inturned rim. Decoration: twisted cord impressions in geometric motif on outside of rim and collar and twisted cord impressions in lines on internal surface of rim. Fabric Gr 1. Collared Urn. Context 643 (cuts 642 and 644), SFs 612 and 618.
3	Rim and part of upper body, rounded slightly inturned. Fabric Fl 1. Cup. Context 643 (cuts 642 and 644), SF 620.
4	Base and part lower body. Fabric Fl 1. Collared Urn or possible Deverel-Rimbury urn. Contexts 643 and 645 (cuts 642 and 644), SFs 621, 622, 674, 566 and 595.
5	Collar and rim, flattened inturned. Decoration: fingernail impressions in filled triangles on collar and rim, impressions (possibly fingertip) just below collar and encircling lines of fingernail impressions on rim lip. Fabric Gr 1. Collared Urn. Context 643 (cuts 642 and 644), SF 632.
6	Collar, rim and upper body, rim flattened, slightly expanded internally and inturned. Decoration: abundant fingernail impressions in rough diagonal lines on collar and rim, occasional fingertip impressions just below collar and encircling lines of fingernail impressions on rim lip. Fabric Sh 1. Collared Urn. Context 643, SF 571, sherds from urn also in contexts 611, 645, 689, 690 and 691 (cuts 642 and 644).
7	Collar, rim and part upper body, flattened inturned rim. Decoration: fingernail impressions and uncertain impressions (possibly whipped cord) in columns on rim and collar, occasional fingertip impressions just below collar and encircling lines of fingernail impressions on rim lip. Fabric Gr 1. Collared Urn. Context 645 (cut 644), SF601
8	Collar and rim, flattened inturned. Decoration: impressions of uncertain origin on collar and rim, impression (possibly fingertip) just below collar and encircling lines of fingernail impressions on rim lip. Fabric Sh 2. Collared Urn. Context 645 (cut 644), SF 589.

Table 1. Description of illustrated Bronze Age pottery.

unenclosed; later two D-shaped ditched enclosures were added, enclosing a roundhouse and other associated features in each.

#### Settlement chronology (*with Derek Hamilton*)

Establishing a chronology for the Iron Age activity at Hallam Fields, as with other Iron Age sites, is problematic given the difficulties in closely dating the artefacts (in particular the poorly-dated typologies of Iron Age pottery). The general lack of intercutting features also contributed to difficulties in developing a detailed phased development of the settlement. Despite this, a good radiocarbon sequence, together with some more closely datable artefacts, has enabled an outline chronology of the site development.

Ten samples of carbonized residues adhering to the internal surfaces of pottery sherds were submitted for accelerator mass spectrometry (AMS) radiocarbon dating. The results are given in Table 2. A Bayesian approach to the interpretation of archaeological chronologies has been attempted to provide estimates for the start, end and duration of Iron Age activity (full results in Speed 2009). While the radiocarbon dating of carbonized residues on pottery sherds is particularly useful as the residue is directly related to the use of the pottery and most can be comfortably assigned to a broad chronological horizon, it is not necessarily without problems. All of the pottery submitted as part of this dating programme had been identified as belonging to an Iron Age tradition; however, three results were anomalously early suggesting sample contamination. Based upon these results, the model has good overall agreement between the remaining radiocarbon measurements and the observed stratigraphic relationships. The results show that the main settlement activity is clearly dated to the mid-Iron Age (450–100 BC). The archaeological and radiocarbon dating evidence indicates that this settlement may have lasted for *c.* 140 years. The beginning of the settlement is only loosely dated to *c.* 450 to 220 BC; the settlement activity may have ended around 290 to 180 BC. The mid-Iron Age settlement may therefore be broadly contemporary with Wanlip (1km north-east), Beaumont Leys (2km south-west) and the early phases of Humberstone 4.5km to the south-east. However, there is evidence of some late Iron Age occupation from the site (*c.* 100 BC–AD 43). From the area examined this appears to have consisted of only minor activity, mainly pit digging within the central area (along the line of the ditch on the north side of Enclosure I). However, the presence of rotary querns and late Iron Age pottery does suggest settlement activity nearby, perhaps with the focus having moved elsewhere.

#### From open to enclosed

Human patterns of movement are defined by architectural configuration and boundaries; the arrangement at this site indicates that separate areas within the settlement were being used for differing activities. The settlement contains typical elements of a small Iron Age enclosed settlement, namely a single centrally-placed roundhouse, areas of pits and some sub-divided areas. Enclosure II resembles the larger Enclosure I, although only half the size; it also contains a single centrally-placed roundhouse, more areas of pits and sub-divided space within the enclosure. The remaining enclosures (III, IV, Area 2 and Area 3) contained no clear structural evidence, and it is possible that these were for livestock. The settlement at Birstall shows clear similarities across wider Iron Age society in terms of the layout of the enclosed space. This may indicate that these settlements have been arranged to a strict spatial order or template, mirroring what was seen elsewhere, or more simply it may have been the most practical and utilitarian arrangement for the needs of those who lived there.

The differing zones of activity may have been originally less well defined as the settlement at Birstall appears to have had unenclosed origins. Fig. 6 shows the settlement to have been focused around ditch boundaries aligned at right angles to

Lab ID	Sample ID	Context Info	$\delta^{13}\text{C}$ (‰)	Radiocarbon Age (BP)	Calibrated Date (95% confidence)	Posterior density estimate (95% probability)
Ua-36709	17	secondary fill enclosure ditch	-24.5	2300 ±40	410–230 cal BC	400–350 cal BC (28%) or 310–210 cal BC (67%)
Ua-36710	069	pit group in SW corner of Enclosure I	-29.2	2895 ±110	1420–810 cal BC	1390–840 cal BC
Ua-36711	071	pit group in SW corner of Enclosure I	-23.6	2530 ±65	820–420 cal BC	810–480 cal BC (90%) or 470–410 cal BC (5%)
Ua-36712	292	first phase of Enclosure I roundhouse	-28.3	2280 ±40	410–200 cal BC	400–340 cal BC (25%) or 320–200 cal BC (70%)
Ua-36713	364	Enclosure III, N end of settlement	-27.2	3055 ±185	1750–820 cal BC	1730–1710 cal BC (1%) or 1700–840 cal BC (94%)
Ua-36714	525	pit within metalworking area	-29.8	2195 ±35	390–160 cal BC	370–200 cal BC
Ua-36715	659	primary fill of ditch [657], Enclosure I	-24.4	2200 ±35	390–170 cal BC	380–220 cal BC
Ua-36716	661	final fill of ditch [657], Enclosure I	-27.1	2205 ±40	390–170 cal BC	360–200 cal BC
Ua-36717	776	pit cutting Enclosure II roundhouse	-26.5	2160 ±35	360–90 cal BC	370–180 cal BC
Ua-36718	808	post-packing from pit within cluster	-27.3	2245 ±40	400–200 cal BC	390–340 cal BC (20%) or 330–200 cal BC (75%)

Table 2. Radiocarbon results.

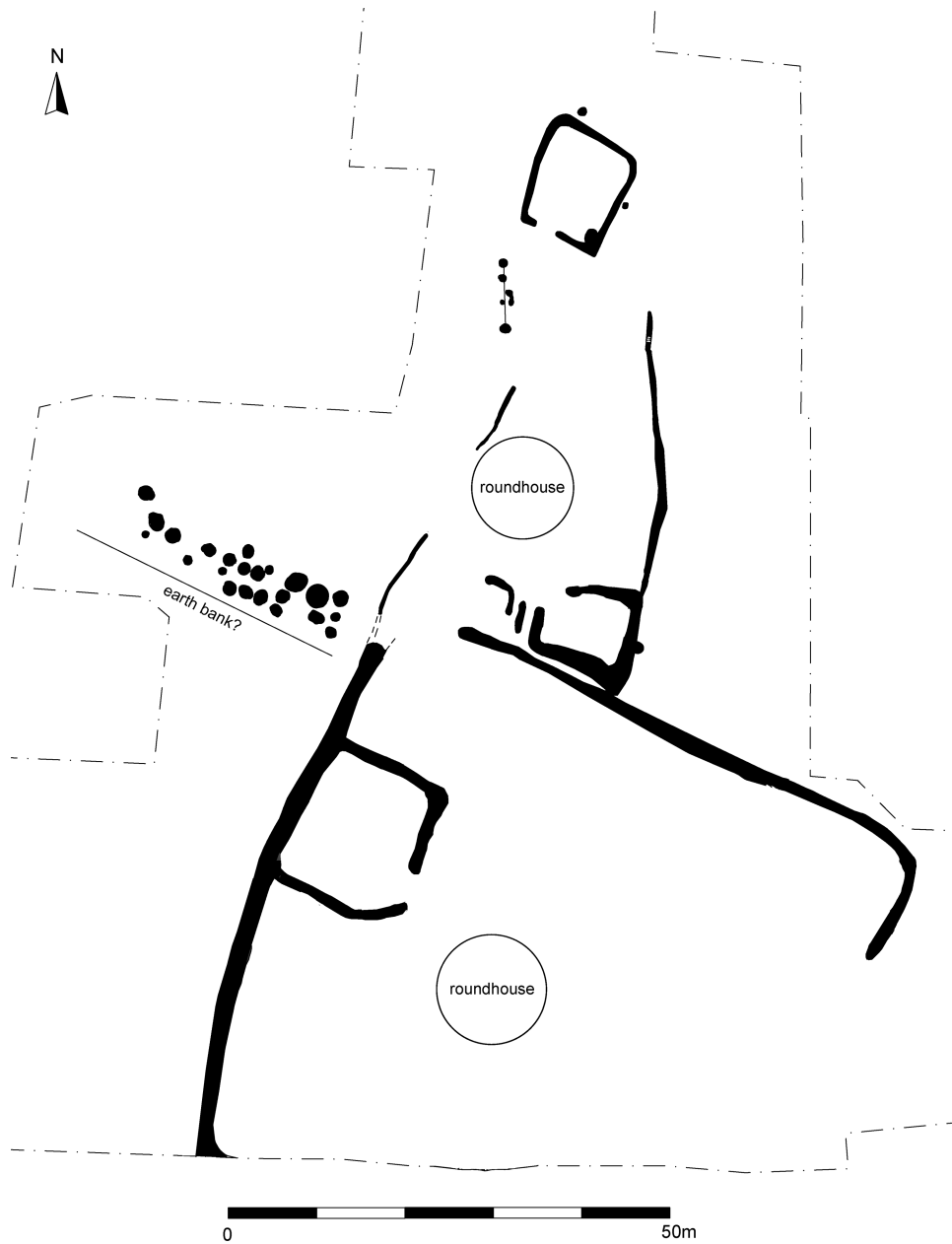


Fig. 6. Possible early phase settlement boundaries.



Fig. 7. Area 1, showing main settlement focus.

one another in a semi-open space. This settlement may have grown up around the corners of two linear ditch boundaries: one aligned north–south, the other east–west.

The roundhouses and settlement were later fully enclosed by larger re-cut ditches, forming Enclosures I and II. These formed a large ‘D’-shaped enclosure lying adjacent to a smaller sub-rectilinear example. The larger, Enclosure I, was 168m in length and enclosed 2,500m<sup>2</sup>. It continued into the edge of the excavation to the south, presumably below the rear gardens of properties running along Harrowgate Drive. Fifteen sections (*c.* 1.5m wide) were excavated every 10m along the length of the ditch, or at an intersection with another ditch. The various excavated sections revealed a different character to the ditch along each of its three sides (see Fig. 9). There is an absence of features immediately on the inside of the ditch indicating space for an internal bank, but any archaeological evidence for this is lacking.

Along the western length (‘A’ on Figs 8 and 9) the ditch was of two phases, the earliest [662] being *c.* 0.7m in depth, with steep sides and a ‘U’-shaped base. The re-cut ditch [626] had a fairly gentle, gradual slope on the interior, and a slightly steeper slope along the exterior side. It was also slightly shallower at *c.* 0.6m in depth, with a width ranging from 1.32m to 1.65m. The earliest ditch was only seen up to the intersection with the internal rectangular enclosure IB. The remaining areas of the ditch, further along the western, northern and eastern lengths, all contained a single-ditch phase, similar in form to the re-cut ditch along the western length. The sections along the northern length (‘B’ on Figs 8 and 9) showed the ditch to be both shallower (*c.* 0.3m deep) and narrower (ranging from *c.* 0.7m to *c.* 1.2m in width) than all other areas. Here it clearly cut an earlier ditch (Enclosure II, [411]). Along the eastern length (‘C’ on Figs 8 and 9) the ditch was *c.* 0.3m to *c.* 0.43m deep, and its width ranged from 1m to 1.3m. In all sections excavated there were generally two fills, the earliest a thin deposit, below a much thicker secondary deposit. In general the ditch was deepest in the south-west, with the northern length being very shallow. This may be due to plough truncation as there is a slight hill slope from north to south, or it may represent genuine differences in depth (deeper ditches needed towards the southern end to aid drainage). Most of the middle Iron Age pottery was recovered from the secondary ditch fill, and there appeared to be little spatial variation in the volume of artefacts recovered from each excavated section (see Fig. 18). The plant remains contained a moderate amount of cereals, chaff and seeds, with consistent levels throughout the entire length of the ditches. The ditch was subject to radiocarbon sampling, from which calibrated dates indicate a date range of 390–200 BC (see Table 2).

Immediately to the north of Enclosure I was the smaller rectilinear (or ‘D-shaped’) Enclosure II (Fig. 7). This enclosed the truncated remains of a possible roundhouse, a sub-enclosure with metalworking evidence and other settlement activity. The course of the ditch is slightly more irregular than the larger Enclosure I, although it does partly mirror its D-shape in a reverse form. There is little direct relationship with Enclosure I and so the development sequence between the two enclosures is uncertain. Enclosure II was approximately 43m long, 28m wide at

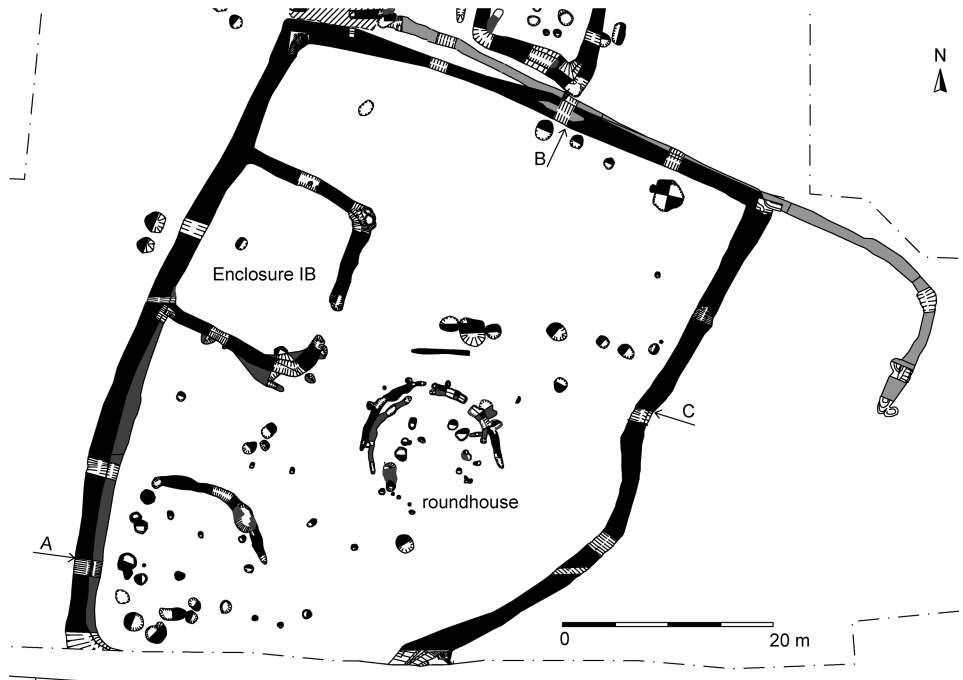


Fig. 8. Enclosure I.

the southern end and 13m wide at the northern end. It enclosed an area of 973m<sup>2</sup>, making it around 40 per cent of the size of Enclosure I. The width of the ditch also varied, being generally 0.68m wide along the southern area of the eastern length, before widening to the north to 1.5m, while the western length was 0.95m wide. The ditch was *c.* 0.7m deep containing a primary silt deposit, which is likely to represent natural sands and gravels washed into the open ditch when in use. A few sherds of mid-Iron Age pottery were recovered from this. Overlying this was a thicker deposit of mid grey-brown silty sand, again with mid-Iron Age pottery present. The ditch was much smaller along the eastern length; this was re-cut by a larger ditch, more similar to the profile seen along the northern and western lengths of the enclosure.

The remaining enclosures and ditches contained no occupation evidence; these are also aligned with the north-edge of Enclosure I (the south edge of Enclosure II), some more clearly than others (Fig. 15). It is probable that these represent livestock enclosures associated with the main settlement focus in Enclosures I and II (the sub-enclosures are discussed further below).

#### Settlement boundaries

In a recent study of Iron Age enclosed settlements within the Leicester hinterland, most within the area were found to be either curvilinear or D-shaped (Speed 2005;



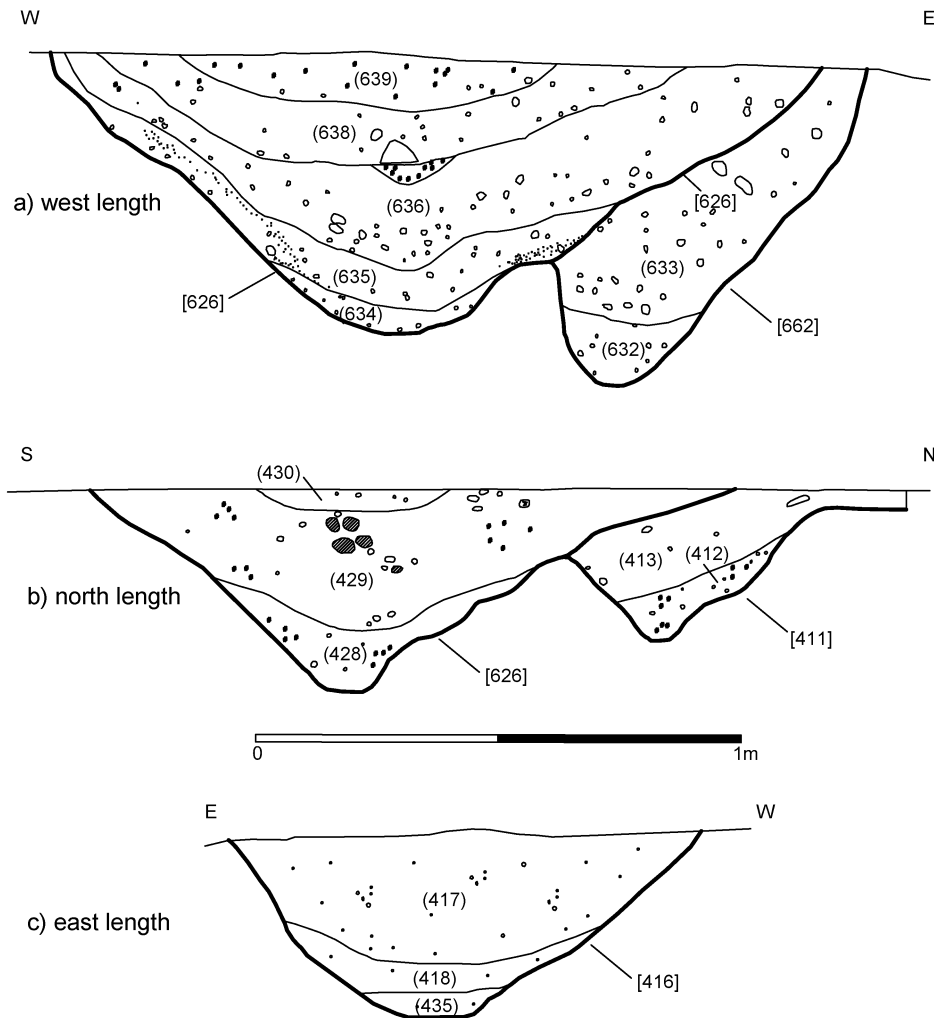


Fig. 9. Enclosure ditch sections.

2010), with the exception of rectangular enclosures at the Late Iron Age agglomerated settlement at Humberstone (Thomas 2008b). This may be a reflection of the chronology of the sites, the earliest having the most irregular curvilinear form as seen at Kirby Muxloe (there a sub-oval enclosed settlement), which dates to the Late Bronze Age/ Early Iron Age (Cooper 1995, 162). The more irregular forms of enclosure or unenclosed settlements are generally perceived as early Iron Age within largely unbounded landscapes. Closer to Birstall are the middle Iron Age settlements at Wanlip and Beaumont Leys that are both unenclosed. At Wanlip the 'D'-shaped enclosure had no occupational evidence within it (Beamish 1998) and likely represents a livestock enclosure (much like

Enclosure IB and Enclosure III at Birstall). The large agglomerated settlement at Beaumont Leys was unenclosed, although the southern limit of the settlement was bounded by a linear ditched boundary (Thomas 2008c, 5). Further south within the Soar valley is the mid-Iron Age settlement at Hinckley, consisting of an irregularly shaped curvilinear enclosure, with settlement evidence within and outside of the enclosure (Chapman 2004).

Birstall therefore represents an early example of a settlement enclosed by regular ditched boundaries, perhaps within an already established field system (see Fig. 10). Enclosed settlements are more commonly associated with mid to late Iron Age settlements within Iron Age Britain, as seen at other known examples within Leicestershire. For example, the two enclosed settlements at Enderby (5km south-west of Leicester) which are both broadly dated to the mid to late Iron Age. Enderby I had unenclosed origins, later enclosed by a large 'D' shaped (proto-rectangular?) enclosure (Clay 1992). The examples at Enderby and Birstall indicate that these D-shaped settlements may be part of a more open and organised landscape, perhaps fitting into the corner or edge of field boundaries. This is in contrast to the earlier more irregular enclosures that may not have needed to fit into such an organised landscape. However, despite the presence of some D-shaped enclosures, curvilinear forms were still present – for example, the second enclosure at Enderby (oval in form) located 350m south of Enderby I (Meek *et al.* 2004, 1), and Huncote *c.* 9km south-west of Leicester (Meek *et al.* 2004, 19), which is again curvilinear in form. The more rectilinear enclosure forms are generally associated with later Iron Age settlements. The large agglomerated settlement at Humberstone is the clearest example of this (Thomas 2008b). Located 5km north-east of Leicester, this forms part of a large settlement with the adjacent site at Elms Farm (Charles *et al.* 2000). The settlement is one of the largest discovered and excavated in Leicestershire, containing both open and enclosed elements. Similar well excavated examples are known from Crick (Hughes 1998; Woodward and Hughes 2007) and Courteenhall (Buteux 2005) in Northamptonshire. The rectilinear form reflects the nature of the organised surrounding landscape, as evidence was revealed for an extensive system of rectilinear ditches, indicating large areas of a controlled agricultural landscape.

This shift from unenclosed to enclosed at Birstall is seen throughout southern Britain in the mid to late Iron Age. This indicates that by around 300 BC enclosure ditches were beginning to become an important part of settlements and the wider landscape, representing boundaries of properties, settlements and the wider society. The need for boundaries may reflect increases in population and settlement densities, and the intensification of agriculture, therefore implying much stricter controls on land (Thomas 1997). The importance of this change should not be underestimated; boundaries were formed deliberately for a reason. Although the reasoning behind the enclosure of the settlement at Birstall is unknown, it is likely to have been a mixture of both practical needs, together with what had become deemed to be an appropriate form of life.

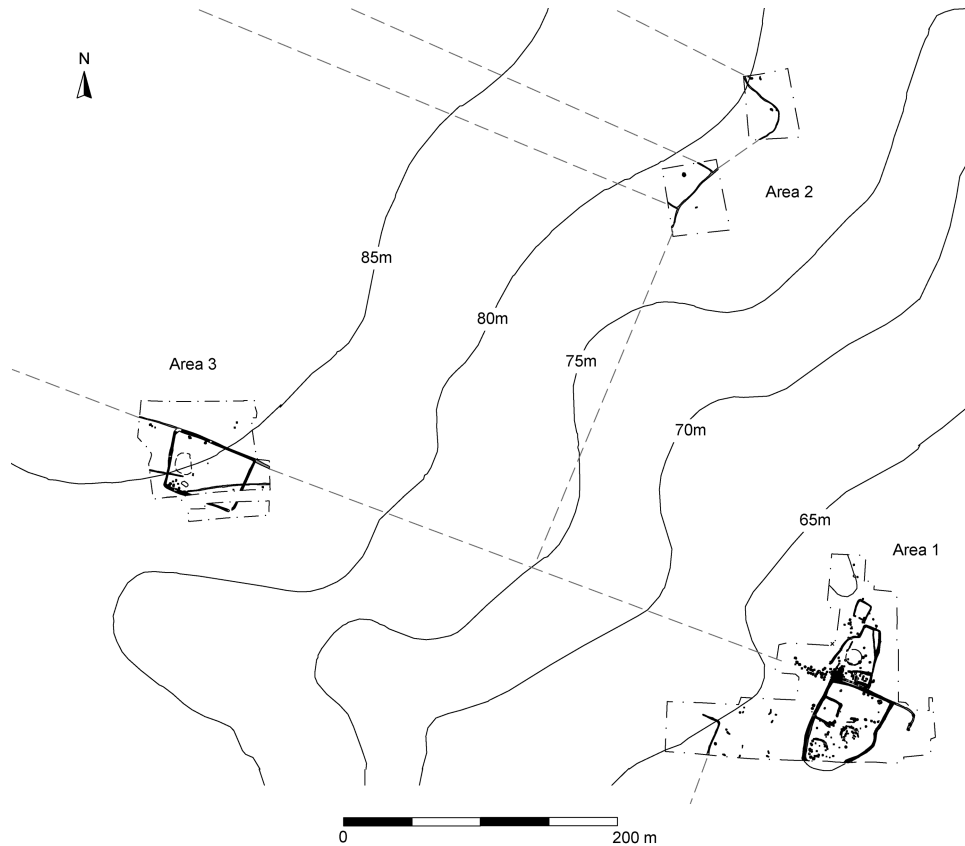


Fig. 10. The topographical landscape and likely field boundaries at Birstall.

### Enclosure entrances

The main entrance is a crucial element of a settlement and most studies of Iron Age entrance ways have focused on the orientation of roundhouses rather than the positioning of the enclosure entrance themselves. It is not always possible to identify the position of the entrance, such as in Enclosure I, where it may have been bridged or else lies in the unexcavated gardens of properties on Harrowgate Drive to the south. The entrance of the other enclosures are known, with the enclosure entrance in Area 3 located in the south-east corner and facing Enclosure I, 500m downhill to the south-east (Fig. 10). Enclosure II and Enclosure III entrances both face to the south-west. This is in contrast to other known enclosure entrances in the region (Speed 2010, 39), and across central and southern Iron Age Britain (Hill 1995, 5), that indicate most enclosure entrances, like roundhouse entrances, were easterly-orientated.

The predominance of the east-facing enclosure lends itself well to the extensive research that has been undertaken on the possible meanings behind Iron Age

roundhouse orientation. For example, of the settlements that have earlier unenclosed origins (such as Enderby II and Huncote), the roundhouses face east, so when the enclosure ditches were dug and the settlement enclosed the entrances may have simply mirrored the entrance orientation of the buildings, in what may have been seen as the ‘correct’ way, or perhaps simply the most practical way, to define the settlement route-ways and boundaries. At other settlements enclosure entrances often face out onto pre-existing route-ways or face their neighbours (as seen at Wollaston in Northamptonshire; Meadows 1995, 3). This may have been the case with Enclosures II and III being orientated to fit into their local surroundings.

### Building biographies

The roundhouse was the most common building form in Iron Age Britain from the Middle Bronze Age through to the Late Iron Age (Parker-Pearson 1994, 47). The examples at Birstall are represented by an encircling eaves drip gully and a number of post-holes and pits within the enclosed area of the gully. Enclosures I and II each contain one roundhouse, perhaps indicating that each enclosure was utilised by a single family unit, or else Enclosure I may have been the primary domestic space, with Enclosure II, and the roundhouse within it, acting as a secondary, ancillary area/space. The position of the buildings within the settlement is crucial to the understanding and interpretation of the structures.

The study (and orientation of) roundhouses has been a central theme in Iron Age studies in Britain for the past 20 years, notably by Fitzpatrick (1997), Oswald (1997) and Parker-Pearson (1994). Essentially the studies have focused on the ‘fact’ that: ‘The great majority of entrances to Iron Age roundhouses are orientated to the east’ (Fitzpatrick 1997, 77). Early research noted that roundhouses faced either in an easterly or south-easterly direction, due to practical reasons that an easterly direction offers the best protection from the prevailing westerly winds and faces the best sunlight (Guilbert 1975, 205). Until recently, these explanations have been widely accepted as determining factors for the orientation of roundhouses, however, other purely environmental reasons began to be considered. The reasoning for easterly orientated roundhouses was seen as being not particularly disadvantageous, or advantageous; also, if functional reasons were the sole factors in determining the orientation, then we would expect to see more variation in the numerous known examples (Oswald 1997). Studies since have shown some variation in northern and southern Britain over the east/south-east norm (Pope 2007). The preference for this direction could also be seen as a reflection of human behaviour. Studies by Wait (1985) and Boast and Evans (1986) linked the potential of ritual to roundhouse orientation by demonstrating that ritual traditions from the Bronze Age had transferred into the domestic sphere in the Iron Age. A cosmological model has been developed by Parker-Pearson and Richards (1994), who examined the use of domestic space within the roundhouse. They argued that space could have been ‘concentrically ordered within the roundhouse, with the main tasks being undertaken in the central “public” area...and other activities, such as sleeping and food-storage,

located in the more “private” outer area’ (Parker-Pearson and Richards 1994, 54). The roundhouse in Enclosure I is orientated to the south-east, and so can be added to the large number of roundhouses that are orientated in this direction. Interestingly, the roundhouse of Enclosure II is orientated to the north or north-east (but is truncated), facing away from Enclosure I. Perhaps this indicates that whatever activity was taking place within this structure, it was desirable to face away from the main building within Enclosure I.

Placed roughly-centrally within Enclosure I was a two-phase roundhouse, with both phases consisting of three segments of a penannular eaves-drip gully. The earliest phase penannular gully consisted of three sections 9.7m, 3.55m and 6.7m each in length, with a gap of *c.* 0.65m between them. The gully had a diameter of *c.* 13.2m enclosing an area of *c.* 66.12m<sup>2</sup>. It had concave sides and a generally flat base, although the form varied slightly along the length of the gully. It ranged in depth from 0.10m to 0.3m. The two gullies formed a semi-circle rather than a more common circular form associated with roundhouses. If the function of the gullies was to drain water, then the most logical and practical solution would be to have drainage gullies along the northern side of the building – as there is a natural slope from north to south. A moderate amount of fired clay and daub was recovered from the fills that may come from the roundhouse walls. Within the fill of the drip gullies was a notable concentration of pottery at the eastern terminal [010], including a large ovoid scored vessel. The inner, second-phase gully, also consisted of three sections, of a similar length, at 9m, 3.55m and 3.74m, with a slightly larger gap of *c.* 1.8m–0.8m between them. The gully had a diameter of *c.* 10.75m, and enclosed an area of *c.* 66.12m<sup>2</sup>. Like the earlier gully, this had concave sides and a flat base, but with a more consistent form in depth (*c.* 0.25m). There was a low number of mid Iron Age pottery sherds recovered from the gully, with a greater concentration of pottery from the western gully terminal.

Within the enclosed space of the gullies were a number of small post-holes, which may indicate evidence for the roundhouse structural beams, or smaller internal structures. There were three distinct groups of post-holes. A group of four post-holes (‘A1’ on Fig. 11) formed a four-post structure. Two post-holes were clearly defined with vertical edges and a flat base. The structure may have been remodelled as two of the post-holes have been cut into earlier post-holes. Two other distinct groups of post-holes were also seen within the area of the roundhouse (‘A2’ and ‘A3’ on Fig. 11). Also within the gully area were larger pits, along with a number of features built immediately along the outside edge of the outer gully. There was no clear evidence for a hearth; however, the soil micromorphology analysis detected enhanced phosphates within pit [147], indicating proximity to a hearth or dumping of sediments from such a source. The environmental analysis of soils show the living area within the roundhouse was kept clean, with few grain and seed remains. This contrasts with soils filling the gullies, where evidence for latrine/toilet waste was recovered. There is no evidence for a smaller roundhouse or ancillary building associated with the principal building within Enclosure I (as is often seen at other settlements, such as Enderby I and II (Clay 1992, 33; Meek *et al.* 2004) and Humberstone (Thomas 2008b, 108)). However, it is possible that

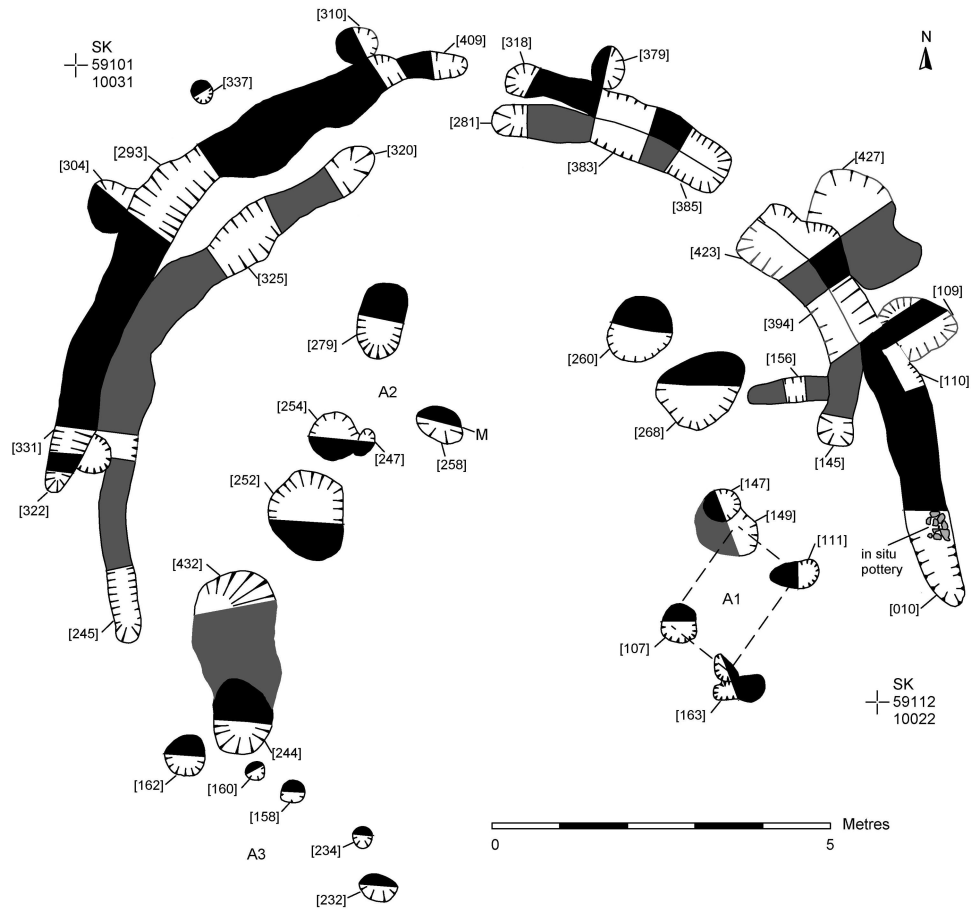


Fig. 11. Plan of roundhouse within Enclosure I.

a post-hole structure may have been situated in the south-west corner of the enclosure, defined by a small curvilinear gully. This could have acted as an additional building to the main roundhouse, perhaps indicating a deliberate spatial organisation, separating differing domestic activities. It is possible that the roundhouse within Enclosure II may have also acted in some form of ancillary role to Enclosure I.

The role of the roundhouse within Enclosure II is uncertain; it may be from an entirely separate phase of activity to that of Enclosure I, or it may represent a contemporary family group living alongside the much larger enclosed space of Enclosure I to the south. The dating evidence is too imprecise to determine this. The roundhouse, like that in Enclosure I, is also centrally positioned within the enclosure. Little survives archaeologically, beyond a penannular gully, 10m in diameter, which may represent the truncated remains of a roundhouse. The gully

was 0.4m wide and 0.15m deep, with a concave profile and contained sherds of mid-Iron Age pottery. On the southern (outside) edge of the gully were two post-holes. A further gully was identified running parallel to the longer gully, only *c.* 2m having survived truncation, and their relationship is unknown. The two gullies may represent two phases to the building. The gully was much shallower at the western end, and it is likely that the recorded end of the gully was not the genuine terminal and that plough damage has removed any surviving evidence of the ditch further north. There is the possibility that the roundhouse was originally unenclosed, based purely on the orientation of the enclosure ditch which heads towards the roundhouse, and then turns away to the west before continuing further south. Also of note is the linear gully (a possible fence line) which also appears to angle away from the projected line of the roundhouse, indicating that, like the enclosure ditch, this was added after the roundhouse.

#### Sub-enclosures: Dividing activities (*with Richard Macphail*)

The main enclosures on Iron Age settlements are often internally sub-divided into smaller areas. Sub-enclosures are a common feature of Iron Age enclosure settlements, although the interpretation of their function varies from animal pen, metalworking area, granary, ritual area, or even a look-out-tower/entrance gatehouse. This is mainly due to a lack of strong evidence, and the possibility that the function of these sub-enclosures may have altered over time (Knight 2007, 203). Within both Enclosures I and II rectangular sub-enclosures were present, and all contained good finds evidence which, combined with a programme of



Fig. 12. View showing roundhouse within Enclosure I, looking north.

phosphate and magnetic susceptibility sampling, demonstrate that the sub-enclosures appear to have been used for a variety of functions.

From phosphate and soil sample analysis two small enclosures are likely to have been livestock pens (IB and III). Within Enclosure I a rectangular sub-enclosure of 200m<sup>2</sup> was located in the central-west area (IB on Fig. 8). In the south-east corner of the enclosure a complex sequence of features were recorded, the ditch having two clear phases, although it may have been recut numerous times. A series of pits and post-holes along the southern edge at the corner of the enclosure may represent a fence-line. The enclosure contained a single pit and had a south-east entrance that was 3m wide.

The enclosure was subject to soil micromorphology analysis, with samples taken from the ditch fill and from natural sands and gravels within the centre of the enclosure. Two of these samples were phosphate-enriched (the most highly phosphate enriched of all samples on the site with over 2.5mg/g). It is possible that this enrichment could be the result of animal penning, and this would appear to be supported by the fact that many of the samples from the enclosure ditch were also phosphate-enriched. The phosphate evidence is not conclusive alone, as the remaining subsoil samples close to the entrance were not enriched. However, the soil micromorphological analysis results complement and support the proposal that the enclosure was used for livestock. The samples from the ditch also contained evidence for aged amorphous dung residues, and associated phosphate nodular concentrations, probably from animal trample, with the dark clay coatings also being enriched in phosphate. Some dung fragments contained



Fig. 13. View of Enclosure IB, looking north.



phytoliths and trampling crust fragments, all indicators of stock being locally present and in fact trampling the ditches themselves. This would account for the poorly defined ditch edges encountered during excavation, especially along the northern length. If this does represent animal trampling it is likely that there was no internal bank.

A small rectangular enclosure – Enclosure III – was located to the north of Enclosure II. It measured 12.75m in length and 11m in width, enclosing *c.* 100m<sup>2</sup> (see Fig. 7). The ditch measured 0.72m in width, and 0.30m in depth, much smaller than enclosures I and II. The enclosure ditches had sharp – almost vertical – sides and flat bases. They were filled with a single deposit of medium grey-brown silty-sand, without any clear evidence for partial silting of the ditches. The only internal feature was a large pit in the south-east corner. Little pottery was recovered from the enclosure ditch, with less than 10 sherds of mid to late Iron Age pottery from all sections excavated, although a concentration of 58 sherds was recovered from the south-east corner of the ditch. The enclosure resembles Enclosure IB in terms of the general proportions, absence of internal features and few finds. Phosphate samples taken from the natural sands and gravels within the enclosure and the ditch fill showed signs of enrichment, although lower than areas within Enclosure I. The magnetic susceptibility samples contained evidence indicating probable animal trampling, suggesting that Enclosure III represents the remains of an animal stock control area.

The location of Enclosure IB (on Fig. 7), centrally placed within the enclosed space, close to the roundhouse, may indicate that it was important to house the livestock within and close to the domestic space. The location of the smaller Enclosure III, on the periphery of the enclosure settlement, may indicate a lessening importance for livestock within this enclosure, or perhaps reflects different farming practices. Within both enclosures the soil analysis, together with the archaeological evidence, indicates that there had been trampling of the ditch by herded animals, especially within the corners.

The internal space of Enclosure I was divided further in the south-west corner of the enclosure (Fig. 14). Here was a curvilinear gully [328] that ‘enclosed’ a number of pits and post-holes. The gully was 14.8m in length, with concave sides and a flat base, and *c.* 0.32m in depth. Approximately central to the gully (3.45m from the west-end), a large pit [195], measuring 2.6m by 1.9m and 0.85m in depth, cut into the gully. The function of the gully enclosing the south-west corner of Enclosure I is unclear; it is reminiscent of a roundhouse drip-gully but is not semi-circular, being more sub-linear in form. It may therefore represent a fence line or small ditch boundary sectioning off this area of the enclosure. Alternatively, it may have still acted as a drip gully for a possible timber post-made structure within the area, as suggested by the large number of pits and post-holes within the area. Some may indicate potential timber post-hole structures; other paired or isolated post-holes surrounding this may also represent further timber structures. Pits are restricted to the immediate area along the edge of the enclosure ditch, avoiding the centrally-enclosed space. These may have been used for storage or refuse disposal. Based on finds recovered from this area, it appears

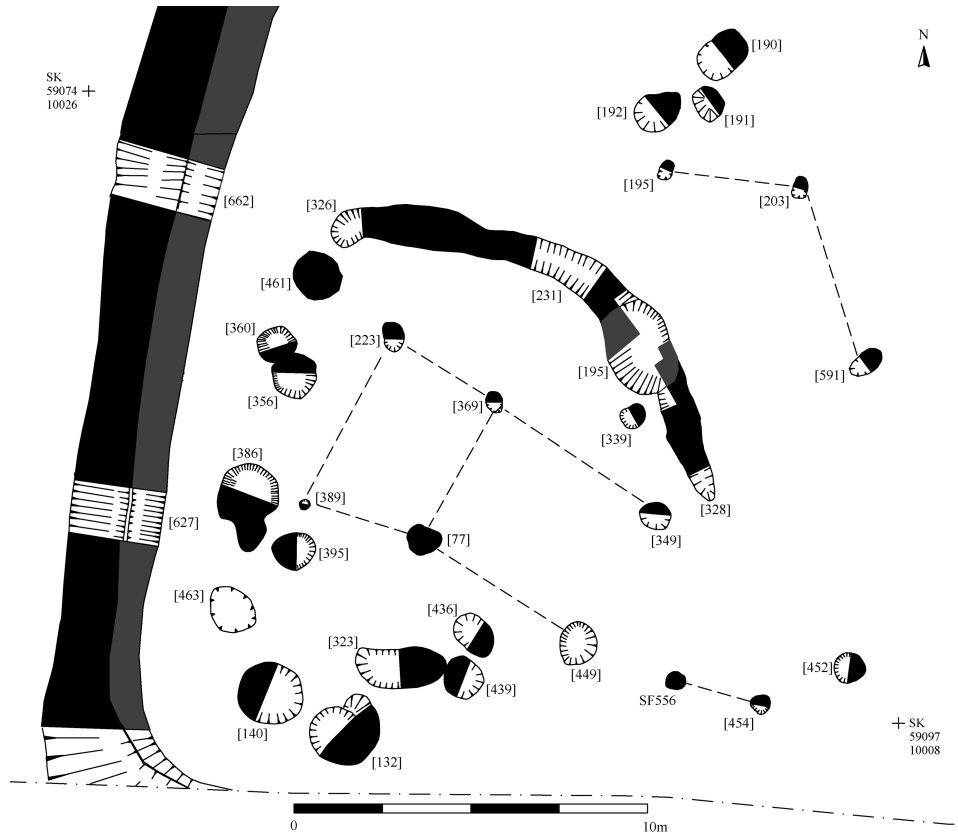


Fig. 14. Features in the south-west corner of Enclosure I.

that this zone of the enclosure was used for various activities. Food preparation is indicated by fragments of two saddle quernstones from the backfilled gully. Handles from pottery vessels (no. 2 on Fig. 19) came from two of the pits; handled vessels are sometimes associated with food preparation (P. Marsden pers. comm.). Loom weights and metalworking waste were also found within this area (see Fig. 21).

The third sub-enclosure was added into the south-east corner of Enclosure II. It was connected to Enclosure II by a narrow gully at its northern end, while another small gully connected it to Enclosure I at the southern end. The small sub-square Enclosure IIB may have had a variety of functions. It could have initially acted as a livestock enclosure-phase A on Fig. 15 (although only low levels of phosphate enrichment were recovered). Certainly in the latter stages of the settlement use the area appears to have been used for metalworking activity, as evidenced from the numerous metal objects, slag and weathered iron working residues recovered within the sub-enclosure (a selection of Iron Age, iron objects, are illustrated on Fig. 17).

The enclosure ditches were *c.* 12m in length, enclosing an area of *c.* 60m<sup>2</sup>. At its south and south-east corners in particular the ditch was much wider and the edges less well defined than elsewhere, suggesting several re-cuts. The natural ground level sloped from north to south, indicating that the ditches had been dug to ease drainage of water. The enclosure was likely to have originally formed a small square-shaped area (phase A on Fig. 15), with an entrance to the north-west. The northern side of the ditch had later been extended east, a further 3m, where the new ditch terminal [618] turned sharply south and cut an earlier curvilinear gully [621] (phase B on Fig. 15). Of further note is a short north-south orientated gully [595]. Both [595] and [621] may represent foundation trenches for small fences. The soil micromorphological analysis of the lower silts within the enclosure ditch showed the soils to contain abundant charcoal, hammerscale and slag.

Within the ditched enclosure were eight pits, some containing metal artefacts, iron slag and phosphate enrichment – evidence for small-scale metal production. The largest pit [397] had sharp, near vertical edges and some heat-affected stones. Along the north edge of the fill were small charcoal flecks, indicating patches of burnt ashy soil mixed in with the more general backfill of the silty-clay. Pit [433] was again sub-rounded with almost vertical edges, although of a slightly smaller size, within which was a small copper alloy wire ring or armlet, along with a largely complete saddle quern. The remaining three sub-circular pits were all of a similar size and form. The soil analysis indicates that pit [020] was a charcoal dump probably from a hearth. Pit [414] contained a worn iron knife blade (Fig. 17, 2). This had a slightly sloping heel, a triangular blade and broken tang, which has become twisted or may originally have been looped. Pit [524] contained fire-cracked stones and around 20 per cent of the soil contained small charcoal flecks, while the soil analysis detected some hammerscale fragments. From pit [524], a damaged head of an iron hammer, with a large but incomplete circular eye and the base of one striking face or end of square section, was found (Fig. 17, 1). Close to this enclosure an iron punch was found within the primary fill of Enclosure I's ditch. It was made from a tapering rod of square section with a rounded head, flattened through hammering and barely wider than the shaft (Fig. 17, 3).

The pottery sherds recovered represent a significant amount (12 per cent) of the total site assemblage from a small area, comprising 102 sherds, weighing 2,791g from the eight features within the enclosure. The largest number (32 sherds) came from pit [524], representing two scored vessels and upper body and base sherds from an ovoid vessel, of mid-Iron Age date. Only ditch [618] (added to the original enclosure in Phase B) provided evidence for late Iron Age material, comprising two late Iron Age pottery sherds of 'Belgic type' from [614] and [466]. Similar late Iron Age 'Belgic type' pottery was also recovered from (515). As this material came from the upper deposits it is probable that the ditch had mostly silted up following the end of occupation of the site, although the later Iron Age material does indicate some further activity in the area.

Evidence for metalworking came from the northern and southern sections of the ditch and from pits [433] and [524]. Within pit [433], 477g of tap slag forming

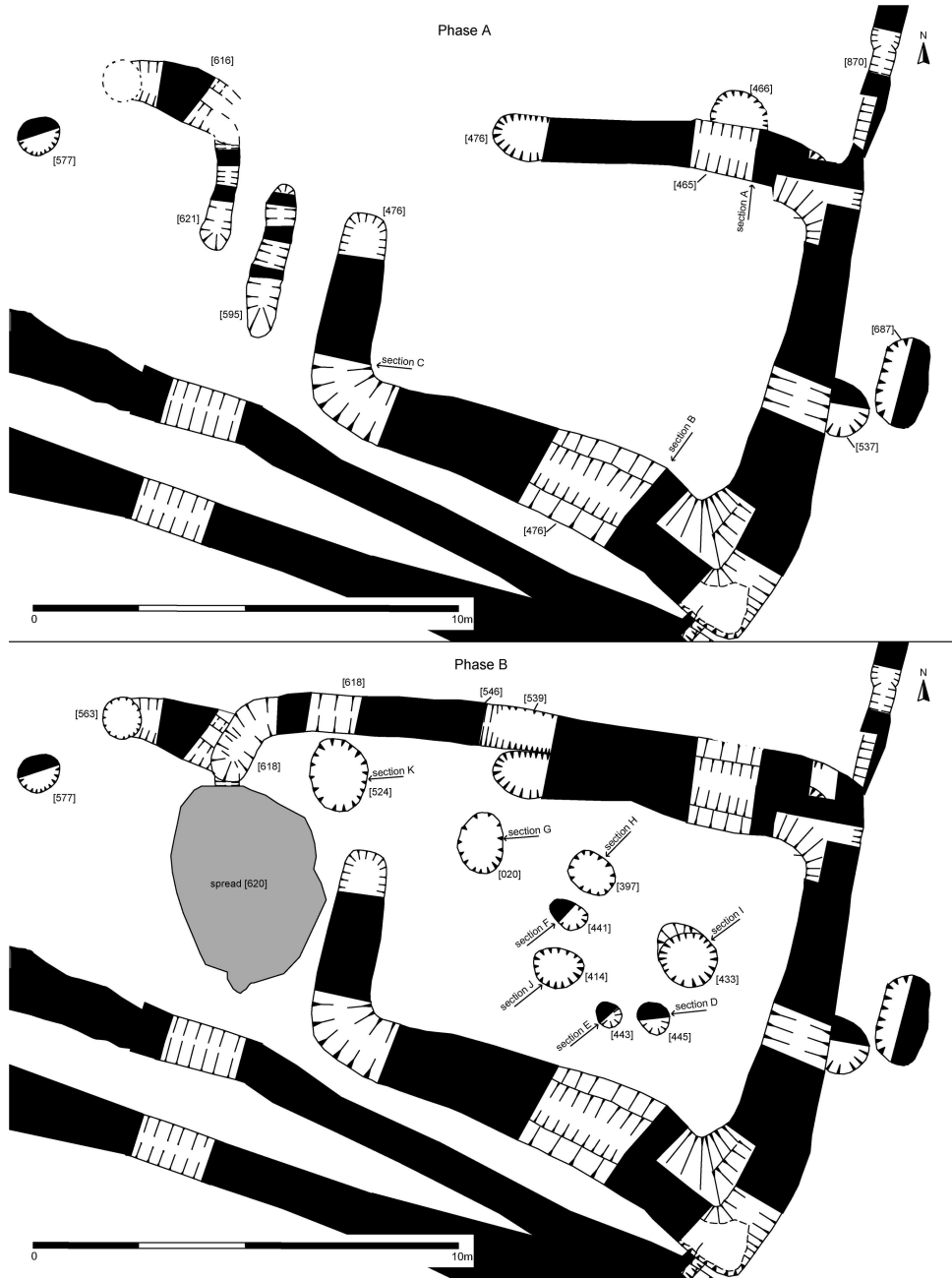


Fig. 15. Plan of Enclosure IIB.

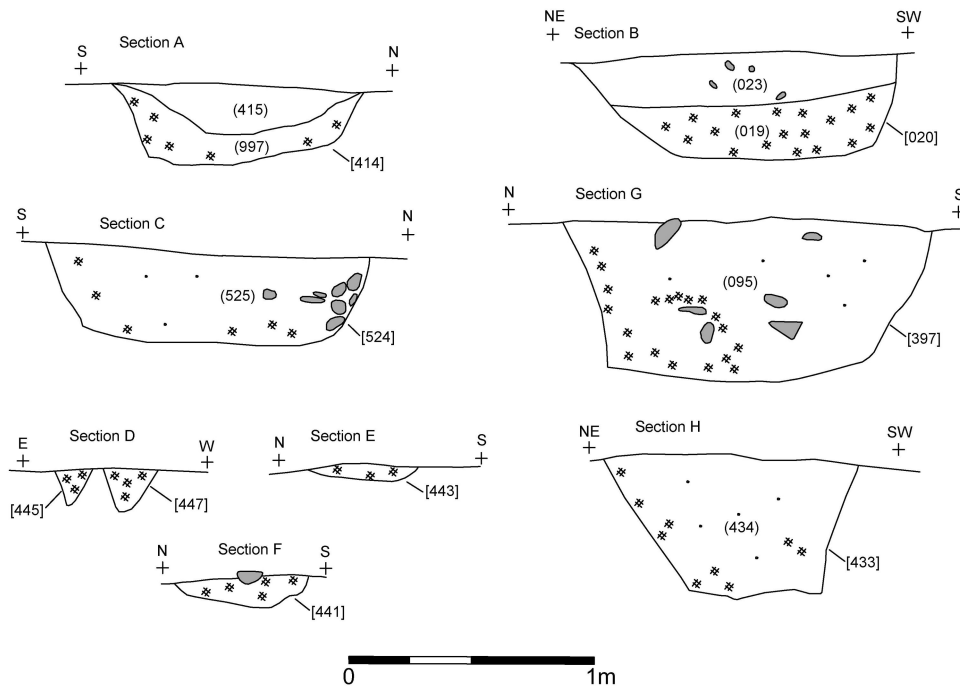


Fig. 16. Sections of features within Enclosure IIB.

a furnace bottom was recovered, and within pit [524], 161g of vitrified coal-like fuel was evident. The phosphate sampling results showed some enrichment, although at much lower levels than other areas of the settlement. Even within pit [020], which contained substantial charcoal fragments within its fill, the sample did not have enhanced susceptibility.

None of the features indicate *in-situ* metalworking; however, the presence of waste products, together with associated hearth or furnace linings, potential raw materials and a hammer possibly used in smithing, strongly indicates metalworking activity within the immediate vicinity. The evidence suggests bowl furnaces for smelting and evidence for the burning of coal, possibly from high temperature craft activities such as metal working.

Spread (620) covered the smaller gullies [595] and [621]; it contained much pottery, animal bone and a perforated oven base, and is likely to represent a dumped midden deposit. Notably it blocks an entrance to Enclosure IIB, indicating that the enclosure may have gone out of use by the time of this deposit and the area used for dumping waste. Alternatively, the entrance was via a bridge elsewhere.

#### Pits and pot (*with Patrick Marsden*)

Pits are common throughout all Iron Age settlements, and in some cases their primary function was for the storage of grain and when no longer needed were

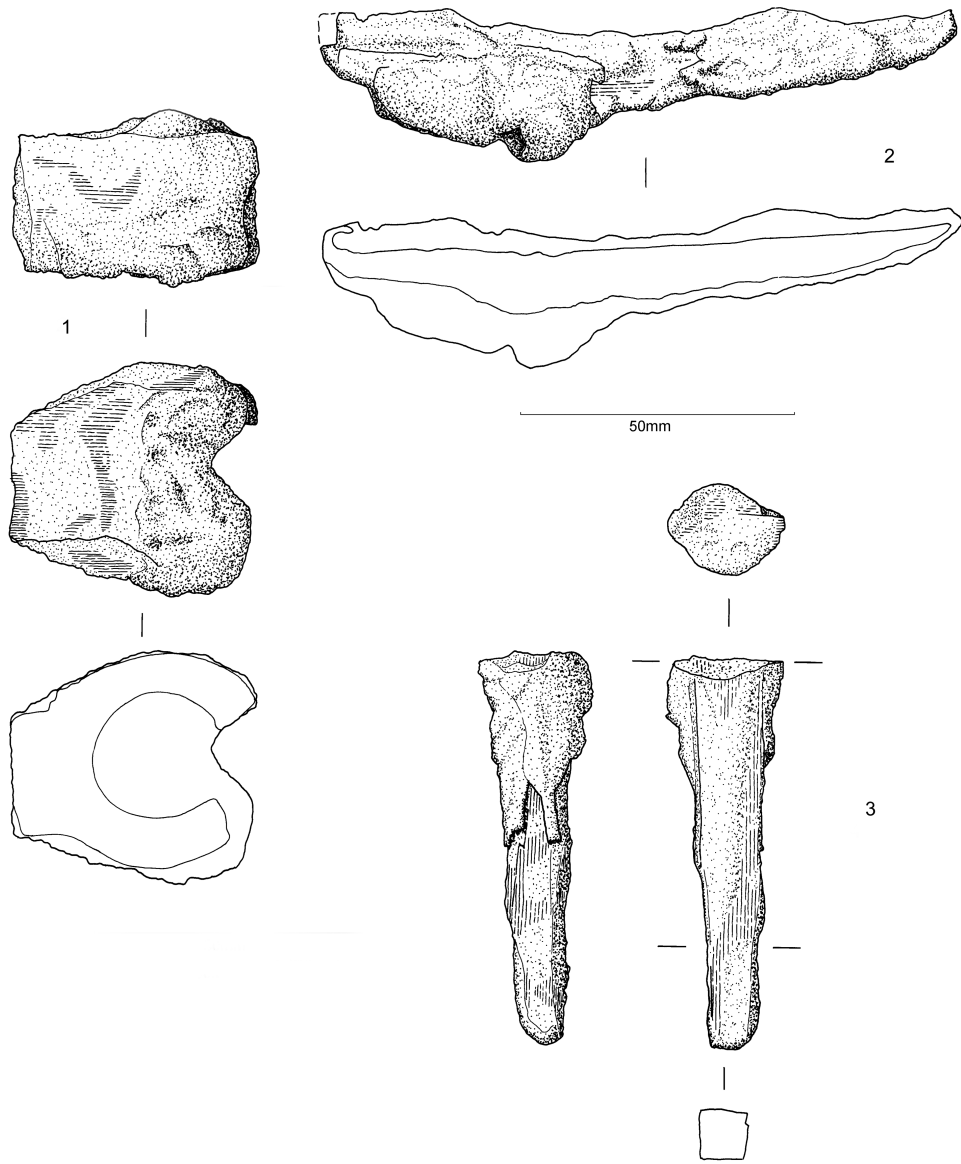


Fig. 17. Iron objects from Enclosure IIB.

allowed to fill, or were deliberately backfilled with domestic waste (Cunliffe 1992, 73). On Iron Age sites pits are often found in groups, located in certain areas both within and outside the enclosures.

At Birstall, pit groups were seen mainly on the periphery of the domestic space, a pit spread – on alignment with the east-west ditch – and a pit cluster in the south-west corner of Enclosure II. Overall, the Iron Age pottery from the site is a

large assemblage by local and regional standards, with a large number of sherds surviving and a number of profiles present. The average sherd size for the site is high (average sherd weight of 18.7g), and most contexts contained fresh and unabraded material. The total of 3,358 sherds weighing 62,628g compares well with larger assemblages of middle to late Iron Age dates from Leicester or its vicinity. Elms Farm, Humberstone produced 6,709 sherds weighing 66,579g, and the adjacent Manor Farm excavated 5,651 sherds weighing 77,047g (Thomas 2008b), while Grove Farm, Enderby yielded 1,925 sherds weighing 35,180g (Clay 1992). All of these sites included smaller quantities of probable 'Belgic type' pottery in addition to the Scored Wares.

With the considerable number of large sherds and contexts containing substantial proportions of vessels, the Hallam Fields pottery includes a significant regional assemblage of Scored Ware. The substantial quantities of pottery from pits contrasts with many of the larger Leicestershire sites such as Elms Farm and Manor Farm, Humberstone (Thomas 2008b), where larger ceramic deposits were concentrated in the numerous roundhouse gullies found at the sites. However, examples of pits containing ceramics showing 'structured deposition' are known from the middle Iron Age site at Wanlip, only *c.* 1km to the north-west (Beamish 1998, 74). At least some of the Hallam Fields pits containing larger assemblages may reflect this tradition. Like at Wanlip, the Hallam Fields pottery groups contain a range of different vessel sizes, and it may be that, in at least some cases, 'vessel sets' were chosen for special deposition. For instance, pit [524] in Enclosure IIB (Fig. 19, 4 and 5) may be an example of this. However, domestic discard is also a possible interpretation of these features and the deposits are not from contexts connected to burial practice, like those from the four-post cremation structure, and possibly its vicinity, at Wanlip (Beamish 1998, 40). Unfortunately no other class of material was recovered in significant quantities at Hallam Fields to aid in a functional interpretation, identifying either ritual or domestic deposition. The issue is not helped by the fact that the level of bone preservation at the site was particularly poor. In some features, however, other material found with the pottery, such as the quern fragments and charred plant remains in the double-post pits, may be evidence of 'structured deposition'.

Within Enclosure I, pits were clustered close to the enclosure ditch in the south-west corner, and immediately to the north (rear?) of the roundhouse. Within these pits were 155 sherds of pottery, some containing handles (Fig. 19, 2), and others with large proportions of rim and body sherds with fingertip and nail impressions (Fig. 19, 3). The absence of pits around the south-east area of the roundhouse (the entrance) may be significant, perhaps to keep the most used and busy areas clear. Similarly, areas within enclosure IB and the northern part of enclosure I may have been kept clear for the movement of livestock. The majority of pits within the settlement were located within the south-west corner of Enclosure II, where the highest density of pottery was recovered (Fig. 18). This area was subject to a dense number of intercutting pits and the high number of pottery sherds (14 per cent of the entire assemblage), suggesting that this was a main area for rubbish disposal. The largest amounts came from two pits: 629 (pit



Fig. 18. Total number of pottery sherds.



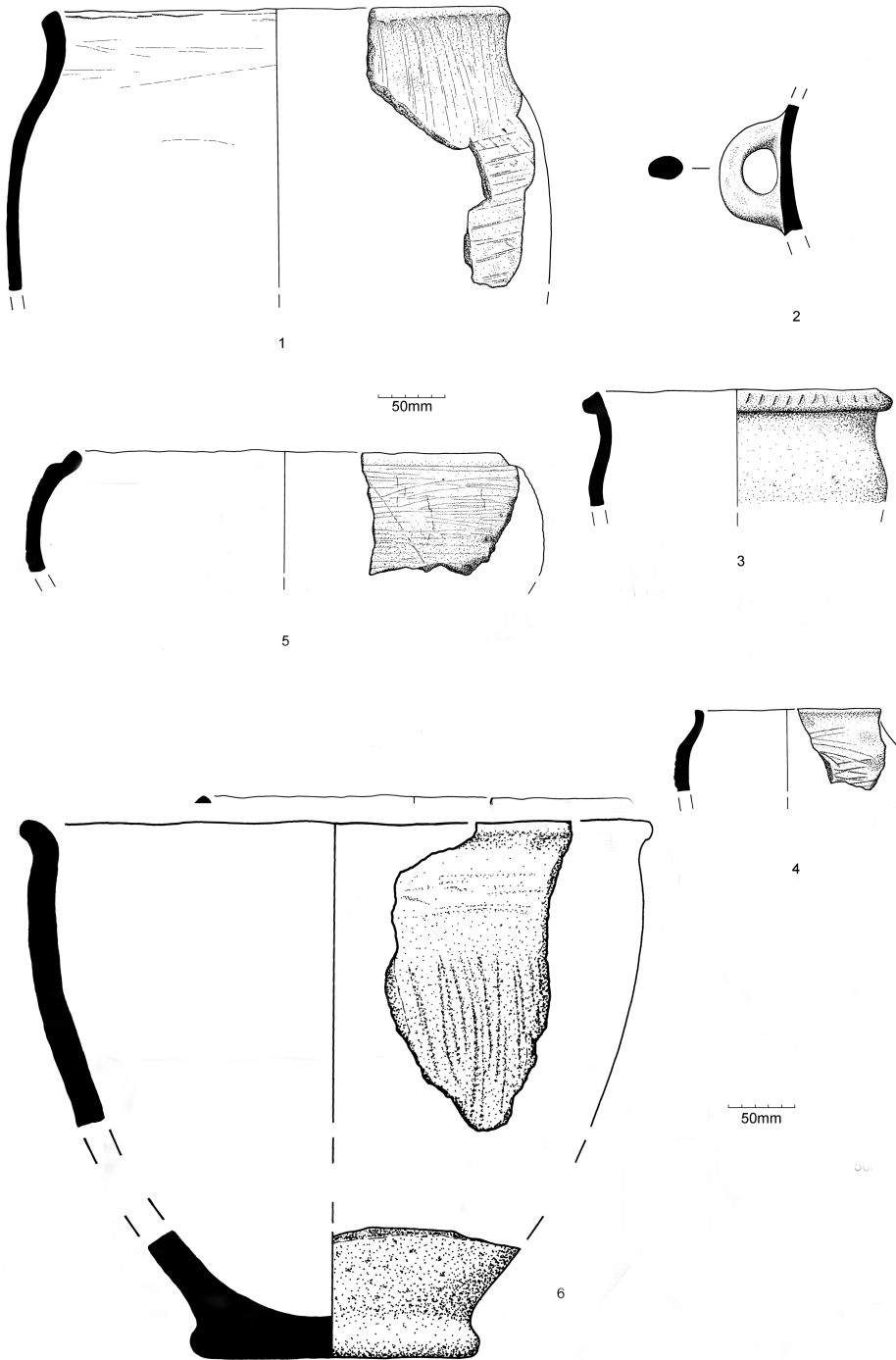


Fig. 19. Illustrated pottery 1 to 6.

[628]), 279 sherds weighing 4,768g; and 710 (pit [709]), 109 sherds weighing 2,154g. Large sherds, including a profile from a scored ovoid jar, were also present. Context 823 [822] contained part of a vessel with impressed decoration, executed with a tool of uncertain origin on the rim lip; this type of decoration is not common amongst Scored Wares, with fingertip impressions more usually found on the rim. Fragments from two other possibly late Iron Age vessels also came from this group: a sherd in a very sandy Q1 fabric, highly burnished internally and externally, from a thin-walled vessel and possibly 'Belgic type', and a vessel featuring geometric decoration and possibly belonging to the La Tène tradition, came from a gully fill.

In contrast, a number of pits grouped in a linear arrangement to the west, and on a similar alignment to the northern edge of Enclosure I, contained very little

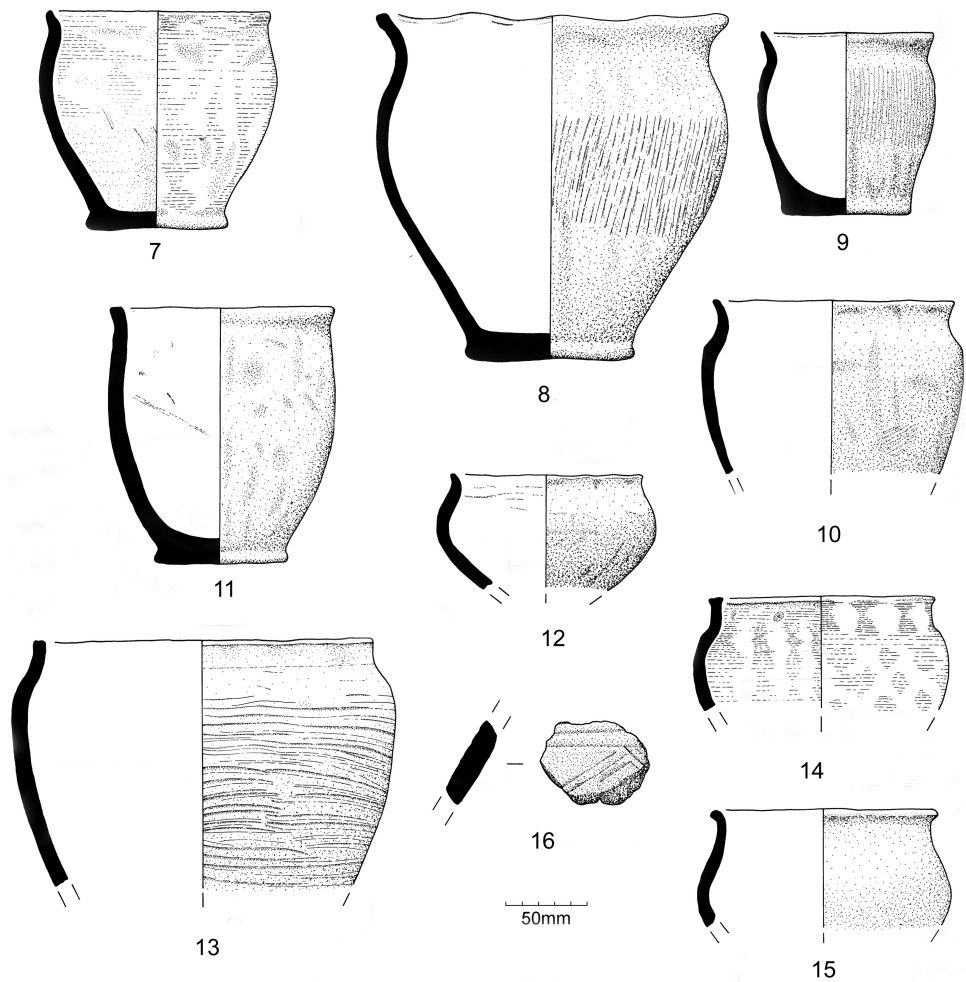


Fig. 20. Illustrated pottery 7 to 16.

pottery. The pits consisted of two distinct types: 13 were all large (*c.* 1m diameter) circular examples, with sharp – almost vertical – sides (0.5m deep) and flat bases; the remaining 13 pits were generally smaller in both diameter (*c.* 0.75m) and depth (*c.* 0.3m). Only four of these pits contained finds; one contained the complete profile from an ovoid bowl (Fig. 19, 7). The variety in two distinct forms of pits may indicate two distinct phases of activity, or differing usage of the area. The lack of intercutting features, however, suggests that this area grew and was added to as pit digging took place. The absence of finds from the majority (85 per cent) of the pits is quite striking, and contrasts sharply with the large volume of material from pits immediately to the east within the corner of Enclosure II. Whilst not forming a regular pit alignment, the pits were arranged in a linear form, on a very similar alignment or orientation (north-west to south-east) to the northern length of the Enclosure I ditch. These could therefore have been dug adjacent to a formal landscape boundary, perhaps an earth bank field boundary immediately to the south (where there is a notable absence of pits, whereas to the north the pits spread out).

**Agriculture and crafts** (*with Jennifer Browning, Nicholas Cooper, Alistair Hill and John Thomas*)

The settlement at Birstall lay within a mixed arable and pastoral farming landscape. A range of arable plant species and weeds was represented within the charred plant remains. These indicate domestic waste from consumption of cereals such as spelt, emmer and barley. There is no evidence for the processing of cereal crops in view of the low levels of chaff. It is therefore likely that glume wheat was dehusked away from the settlement, or the chaff was used or not burned. It is likely that the cereals (especially the wheat) were autumn sown. There were fairly low levels of charred plant remains within the enclosure; generally there was only one item per litre sampled, whereas higher quantities of remains were recovered from the enclosure ditches and some pits close to Enclosure II. This indicates that the main household/domestic space – close to the roundhouse and generally within the enclosures – was kept clean of food residues.

There is some evidence for pastoral farming and that some of the livestock were kept within the settlement area. The phosphate analysis indicates livestock were probably kept within sub-enclosure IB, and possibly within Enclosure III. Due to adverse soil conditions the animal bones were poorly preserved, but of those recovered the majority were cattle, along with a small number of sheep or goat, and pig. Some horse bones were present, mainly from the enclosure ditch in Area 3. Dogs were also present on the settlement, evidenced mainly from gnawing on some of the bones. The assemblage was dominated by domestic animals, but the small number of wild species present included red deer and crane.

There is evidence for various household and craft activities within the settlement (Fig. 21). Most of the objects associated with these activities were found within either the south-west corner of Enclosure I or within the southern area of Enclosure II. These activities were located well away from the main

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1	Rim and body sherds, R2, large ovoid vessel with everted flattened rim, extensive scoring (BRL and some SCR) on external body and internal surface of rim, abrasion on internal and some external surfaces, (5), [10]
2	Handle, R2, (69), [449], Sf 554
3	Rim and upper body, R2, everted flattened rim, rounded externally, fingertip and nail impressions on rim lip, (141), [140]
4	Rim and upper body, R2, everted rounded rim, deep scoring (SCR) and carbonised residue on and below shoulder, some internal abrasion, (525), [524]
5	Rim and upper body, R2, flattened, slightly expanded, inturned rim, deep mainly horizontal and diagonal scoring (SCR) on body, overfiring evident especially on outer surface, (525), [524]
6	Rim and upper body and base, Q1, ovoid vessel with everted rounded rim with external rounding, flat pinched-out base, deep scoring (SCR) on upper body, carbonised residue on outside of upper body below rim and internally on lower body, abrasion on most surfaces, (615), [614]
7	Profile, R2, ovoid bowl-jar with everted rounded rim and flat pinched-out base, burnishing on internal and external surfaces, carbonised residue on external upper body below rim, (105), [cut 104]
8	Rim and upper body and base and part lower body, R2, ovoid necked vessel with everted flattened rim and flat pinched-out base, scoring (SCR and SCRA) on external surface, carbonised residue on external neck and shoulder, (737), [735]
9	Rim and upper body and base, R2, small ovoid jar with everted rounded rim and flat base, very light brushing (BRL) on external surface and in a few areas internally, carbonised residues on inside and outside of rim and the internal upper body, (784), [783]
10	Profile, R2, ovoid wide-mouthed jar with very slightly everted flattened rim and flat pinched-out base, external carbonised residue on upper body and internal lower body, abrasion on inside of vessel in base area, (808), [807]
11	Rim and upper body, R2, necked vessel with everted rounded rim, thick carbonised residue on internal upper body and small patches on outside of vessel in rim and neck area, (843), [841]
12	Rim and body, R2, ovoid bowl with everted rounded rim, (843), [841]
13	Rim and upper body, R2, ovoid vessel with flattened upright rim, deep scoring (SCR) in approximately horizontal direction, external carbonised residue on rim and below and on internal upper body. Area 1, (96).
14	Rim and upper body, R2, flattened upright, slightly expanded rim, burnished external and internal surfaces, (182), [181]
15	Rim and upper body, Q1, round-shouldered or carinated vessel, possibly a bowl, with small everted rounded rim, carbonised residue in area between rim and shoulder of external body, abraded internally. Area 3, (53), [54].
16	Decorated upper body sherd or lid, Q1, incised diagonal intersecting lines and horizontal grooves, abraded outer surface, (745), [746]

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Table 3. Description of illustrated Iron Age pottery.

Q = Quartz fabric, R = Granitic rock

roundhouse within Enclosure I, indicating deliberate use of the settlement space for differing activities. Food preparation within the settlement was illustrated by fired clay from a perforated oven base from Enclosure II, and 19 quernstones found within Enclosure I and II. This is a relatively high number compared to similar sites in the region (a similar number were recovered from the much larger settlements at Humberstone and Beaumont Leys). Mainly saddle querns were used, although there were two rotary querns also within the assemblage. This indicates a mixture of old and new technologies, and the persistence of older methods may be as a result of the availability of local stone or could also indicate differing functions for each quernstone. However, they may also represent different periods of use with the more numerous saddle querns being of mid-Iron Age date, while the rotary querns may be late Iron Age or early Roman. The quernstones were generally found in the south-west corner of Enclosure I, or within the southern area of Enclosure II.

The presence of iron tools and fasteners or fittings, including a knife blade and iron punch, are not common finds on sites of this period. They indicate both general household use and possible use in carpentry within Enclosure II. Metalworking waste within Enclosure IIB indicates that this enclosure may have been a specialised metalworking area. Some metalworking waste from the south-west corner of Enclosure I may indicate similar activities within this area. Evidence for the manufacturing of textiles, and specifically weaving, was present mainly within Enclosure II, where a large number of triangular loom weights were found.

So, working on the recovered finds, the craft and household activities occurred mainly within Enclosure II and the peripheral areas of Enclosure I, well away from the central area containing the main buildings of the settlement. Of course caution must be exercised when defining such activity areas; this deposition patterning may simply be a result of where the material is being deposited (i.e. within rubbish pits) and not necessarily where such activity has occurred. Though given that these finds are from small sub-enclosed spaces – peripheral and screened off areas of the settlement – perhaps in this case the artefacts are hinting at the ‘activity zones’ proposed.

### Final activity

Based on the finds and radiocarbon dates, the main settlement activity may have ended around 200 BC, although later activity is indicated from occasional finds from the late Iron Age.

The roundhouse gully within Enclosure I had natural silts filling it, but also apparent deliberate backfills. At the eastern and western gully terminal a large quantity of pottery was deposited (see Fig. 18). This may be an example of widespread Iron Age traditions of ritualised house abandonment practice. The concentration of ceramic material in the roundhouse gully terminal can be paralleled elsewhere. Depositions in such locations have been found at a considerable number of sites. Examples have been identified at Elms Farm and



Fig. 21. Finds from household and craft activities.

Manor Farm, Humberstone, and Enderby, Leicestershire (Clay 1992; Thomas 2008b), Gamston, Nottinghamshire (Knight 1992), Empingham, Rutland (Cooper 2000) and Crick Covert Farm, Northamptonshire (Woodward and Hughes 2007). These find deposits may reflect ‘ritualised’ house abandonment practice rather than ‘accidental’ deposition (Woodward and Hughes 2007, 201). The ‘left-hand’ location of the concentration in the roundhouse gully terminal from Hallam Fields is similar to those from houses at Manor Farm, Humberstone (Thomas 2008b).

The association of ritual with the roundhouse can perhaps also be suggested with the roundhouse within Enclosure II. Here the building had four large pits dug into the projected line of the roundhouse drip gully. This may be entirely coincidental, although each were very similar (large pits containing high numbers of domestic waste), which could therefore indicate a final symbolic activity signalling the ‘closure’ at the end of the building’s life. At the eastern end of the gully was cut a large pit [777]. This, along with pits [679] and [835], was one of the largest within the excavation. They all had vertical sides and a flat base, measuring *c.* 1m in diameter and 0.7–0.8m in depth. Pits [679] and [777] contained a comparatively large quantity of mid-Iron Age pottery (104 and 84 sherds respectively). Pit [679] also contained a vessel that may be late Iron Age in date, and cattle bone showing signs of butchery, along with an extremely degraded pair of horse mandibles. A high volume of charred grain was also recovered from this pit. Pit [835] had a lower number of pottery sherds (14), but did contain a quern stone fragment centrally placed within the final deposit. Pits [679], [777] and [835] had all been dug within the projected line of the roundhouse gully, and taking the similarities of all three pits into account (their large size and large quantities of domestic material including pottery vessels and querns), along with animal bones (a rare occurrence on this site) and food remains (grain), suggest that these features may represent a final symbolic activity within the roundhouse area, signalling ‘closure’ at the end of the building’s life. Carbonised food residue from a pottery sherd within [777] provided a radiocarbon date with a calibrated date of 360–90 BC, and a posterior density estimate (at 95 per cent probability) of 370–180 BC. This is the latest date of all radiocarbon samples taken, and together with the late Iron Age vessel in [679] this may be one of the final stages of activity within the settlement (or after the settlement had ended), perhaps around the late second to early first century BC.

There is other evidence similar to these pits elsewhere within the area, most clearly the group of pits around the outside of Enclosure III. Again a high volume of pottery was stacked in the pits over large fire-cracked stones. Two pits contained considerable quantities of ceramics: [724], producing 105 sherds weighing 1,775g; and [735], 74 sherds weighing 2,109g (Fig. 20, 8). In addition, quern fragments and charred plant remains from the two pits may suggest ‘structured deposition’. Meanwhile, another post-hole [783] contained sherds from a small ovoid jar (Fig. 25, 9). Other pits contained a complete profile of various vessels: within [807] was an ovoid wide-mouthed jar (no. 10 on Fig. 25); within [841] was a necked vessel and an ovoid bowl (nos 11 and 12 on Fig. 20). Again saddle quern fragments and pieces of worked flint perhaps indicate deliberate deposition. Examples of this type of ‘special deposit’ are known across

(mainly southern) Britain, and into the near-Continent as far as central France (Bradley 2003, 19). The ‘special deposits’ within pits were used to symbolise an important event such as the end of an agricultural cycle, or as a symbol of fertility and rebirth (Fitzpatrick 1997, 80). The examples seen here could indicate a special practice to symbolise the end of the settlement at Hallam Fields.

After the abandonment of the farmstead the ditches would have slowly silted up and any earthen banks gradually eroded. Two ditch sections also contained sherds of ‘Belgic type’ late Iron Age pottery in the final upper fill of the enclosure ditch (Fig. 20, nos 14–16), with no. 16 featuring geometric decoration and possibly belonging to the La Tène tradition. These date from the mid-first century BC to the mid-first century AD, perhaps suggesting continued occupation or that ditches remained largely open after the site was no longer occupied. A Roman brooch was also recovered from the top of the ditch fill, indicating that the ditch may have accumulated with soil over a long period of time following the end of the settlement.

Some activity continued within the area in the late Iron Age, but only isolated pit digging appears to be represented within the area examined. However, the focus of settlement activity may have moved during the late Iron Age to another area not revealed during these excavations. The presence of querns and late Iron Age pottery does suggest nearby domestic activity during this period. The ditches surrounding the settlement may have been visible within the landscape for 100–200 years after the abandonment, as in the early Roman period a small amount of pottery and two brooches were found overlying and within the upper most ditch fills, suggesting that final silting of the ditch may have taken place at this time.

#### THE SETTLEMENT AND ITS ENVIRONS

The settlement at Birstall lies within an area of Britain described as part of the territory of the Corieltavi in the Iron Age (by Ptolemy in the second century AD). However, recent interpretations suggest that there may have been several tribes in the area of the modern East Midlands, reaching from the River Nene to the River Trent (V. Score pers. comm.). The boundaries of the tribal territory in this area (e.g. Cunliffe 1991, 176) should therefore be seen as flexible. Our knowledge of Iron Age Leicestershire has improved significantly over more recent years since the advent of the Department of the Environment’s Planning Policy Guideline Note 16 (PPG16) in 1990. The county has been able to benefit from developer-funded large-scale excavations of partial and entire Iron Age enclosures in advance of redevelopment. The Historic Environment Record for Leicestershire and Rutland now has records for over 250 possible occupation areas dating to the first millennium BC. The majority (150) are cropmark sites (Hartley 1989), eight are earthworks, and most of the remainder were identified from fieldwalking surveys such as the Medbourne and Swift Valley surveys (Clay 2002).

The earliest evidence at Leicester dates to the late first century BC with activity close to the River Soar. From the presence of flan tray fragments used in coin





Fig. 22. Plan of Birstall and other Iron Age settlements in the surrounding area mentioned in the text.

manufacture, and pre-conquest imported pottery, Leicester may have become an important tribal centre by the early first century AD. It is possible that it may have some characteristics of an *oppidum*, or similar, defended with earthwork banks and ditches (Cooper 1993, 85), and extending for 10–20ha (Clay 1985a; Clay and Pollard 1994). Within the hinterland of Leicester are examples of large agglomerated settlements at Humberstone (Thomas 2008b) and Beaumont Leys (Thomas 2008c) that have contemporary periods of settlement with Birstall

(Fig. 26). More widely, other large settlements within Leicestershire are known at Lockington (Clay 1985b; Ripper and Butler 1999), Normanton le Heath (Thorpe *et al.* 1994) and Ratby Bury (Clay 2001). There are also four known hillforts within the county, Breedon on the Hill and Burrough Hill being the largest.

The most common type of settlement in the Iron Age of Leicestershire is the small farmstead (although only around 15 of these small settlements have been either partially or fully excavated). Notable excavated examples include Enderby (Clay 1992; Meek *et al.* 2004); Hinckley (Chapman 2004); Huncote (Meek *et al.* 2004); Kirby Muxloe (Cooper 1995); Hamilton North (Beamish and Shore 2008); Crown Hills, Leicester (Chapman 2000); and Grimbo Farm, Castle Donington (Derrick 1999). Clay proposes a density of one late Iron Age site per 1.8–2km<sup>2</sup> (Clay 2000, 3). The settlement at Birstall thus joins this group of small farmsteads, all of which likely consisted of small family or kin groups who may have had trading links with some of the large ‘agglomerated’ settlements within the area mentioned above. The importance of Birstall lies in its near-complete excavation and detailed environmental recording strategy. This has allowed a more complete understanding of the development sequence of the settlement.

Within the immediate vicinity of Birstall lie two other known mid-Iron Age settlements at Wanlip and Beaumont Leys, along with other possible sites recorded within the Historic Environment Records. The closest known Iron Age settlement to Birstall is at Wanlip (Figs 22 and 23, C), 1km north-east (Beamish 1998). This dates to 450–350 BC, indicating that the two settlements may have been contemporary (or the settlement at Birstall may have begun as the use of the Wanlip site was drawing to an end). The two settlements are quite different, Wanlip being unenclosed (a trait usually associated with early- to mid-Iron Age settlements), whereas Birstall is enclosed. This raises the possibility that Birstall may have had unenclosed origins; indeed, the ‘kink’ in the enclosure ditch on the east side, close to the roundhouse, may indicate that the roundhouse was already upstanding prior to the digging of the enclosure ditch. This shift from unenclosed to enclosed is also seen in the early settlement phases at Manor Farm, Humberstone, where a cluster of unenclosed roundhouses were later partly enclosed by a ditched boundary (Thomas 2008b, 106). Both Birstall and Wanlip also share strikingly similar locations within the landscape, being on the edge of both the river terrace and slight hill rise to the west.

The large agglomerated settlement at Beaumont Leys (Fig. 23, B) lies 2km south-west on higher ground on a clay ridge overlooking the valley (Thomas 2008c, 34). Both settlements may have used the same water source – a stream connected to the Rothley Brook. Both settlements also have linear boundaries that cross the overall landform at right angles. Elsewhere within the immediate surrounding area are a number of known Iron Age settlements lying along the River Soar (Thomas 2003) and Wreake (Cater 2006; Clarke 2007). On higher ground overlooking the Wanlip enclosure is further Iron Age settlement evidence (Fig. 23, D and E), while other settlements are known further north-west, close to the Rothley Brook (Fig. 23, F, G and H) and along the River Soar. It is therefore likely that in the mid to latter half of the first millennium BC the river valleys of

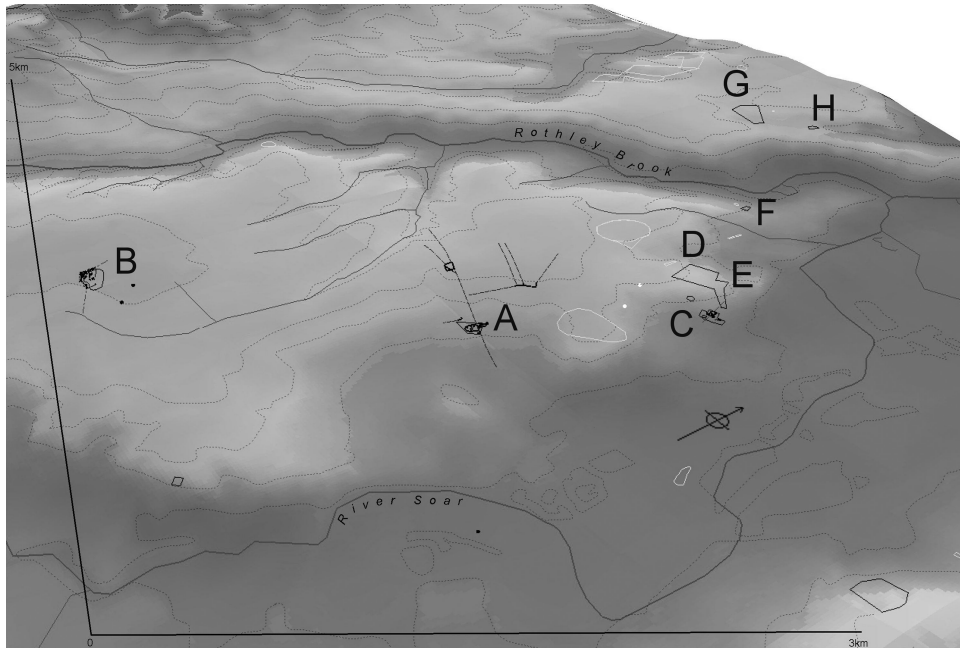


Fig. 23. Landscape visualisation with 4× enhanced vertical scale, showing Birstall (A) in relation to other Iron Age sites known within the area, reproduced using Ordnance Survey Panorama data. © Crown Copyright 2009

the Soar and Wreake were utilised by a series of small farmsteads, including the example at Birstall, together with some emerging larger agglomerated settlements, some tied into a network of field systems and route-ways, on both gravels and clay substrata.

The main settlement is of a similar size to other Iron Age settlements within the region, Enclosure I being similar in size to Enderby, Humberstone (early phases), and Hinckley. Enclosure II is the smallest enclosure with a roundhouse in the region (see Fig. 24). Comparing more widely with 33 other more complete examples in Northamptonshire (also within the territory of the Corieltavi), Enclosure I is around the average size of 2,250m<sup>2</sup>. The evidence suggests that the larger settlements are most often either rectilinear or D-shaped, and the smaller settlements are more likely to be curvilinear in form (Speed 2005, 2010). The exception is Enclosure II, which is one of the smallest in the dataset (Fig. 24). The small size of Enclosure II may indicate that this is an ancillary enclosed space for the main settlement in Enclosure I.

## CONCLUSION

The excavation at Hallam Fields, Birstall has added significant new information and archaeological understanding on later prehistoric settlement within the

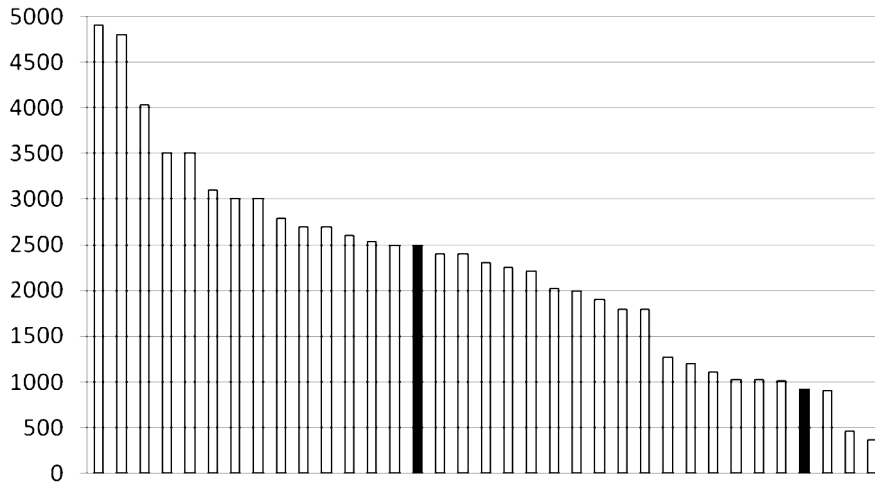


Fig. 24. Iron Age enclosed settlements within Leicestershire and Northamptonshire (organised by enclosed space in sq. m.), Birstall enclosures shaded (data from Speed 2005).

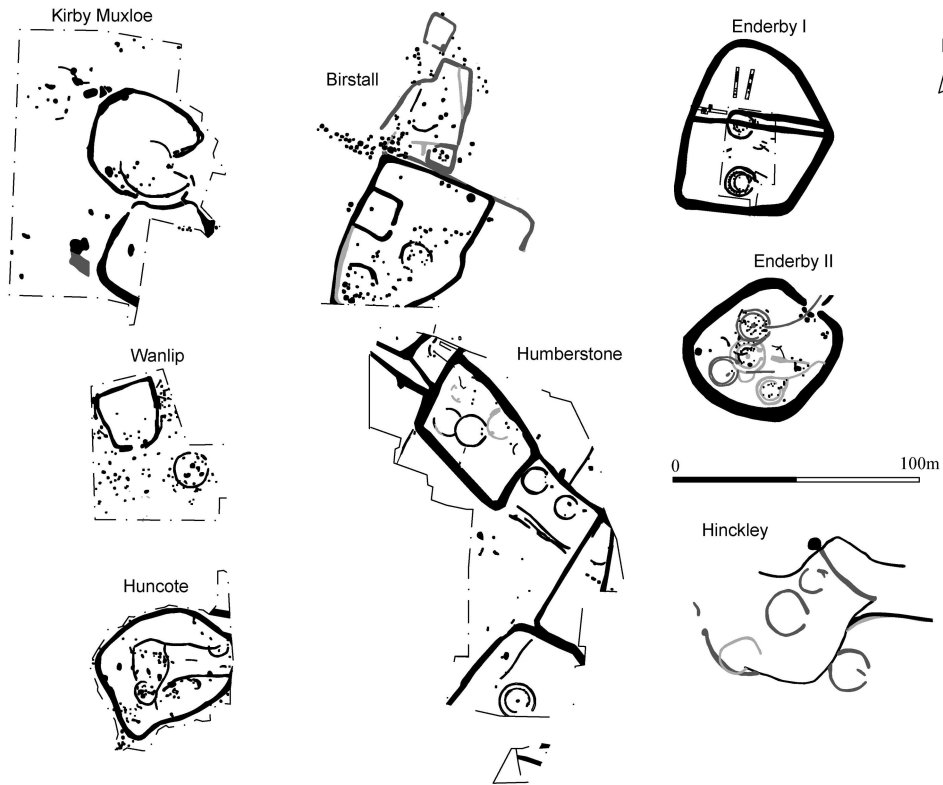


Fig. 25. Birstall in comparison to other Iron Age settlements in the region (from Speed 2005).

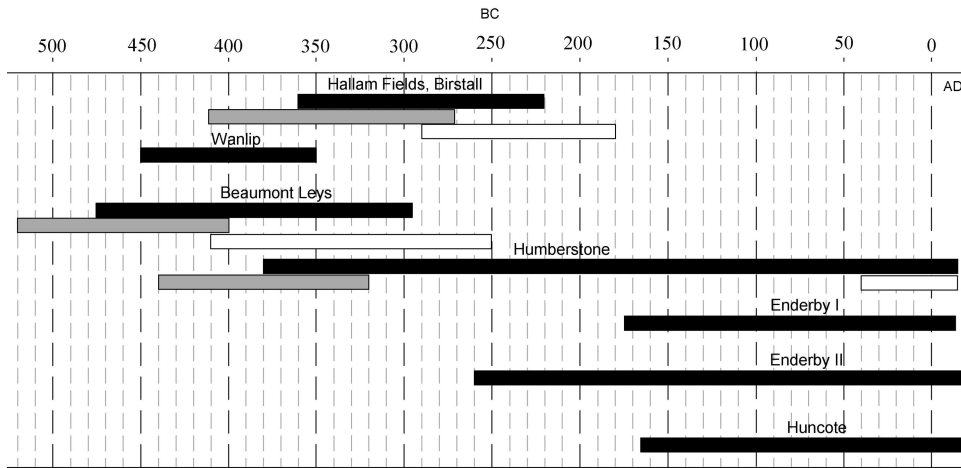


Fig. 26. Plan showing the settlement chronology at Hallam Fields in comparison to other settlements located close by. These are a combination of radiocarbon and stratigraphic evidence. The grey line indicates the likely settlement start date, the white line the likely end date. The black line indicates the possible period of settlement use (from Speed 2005).

region. The settlement may have consisted of a single family or kin group living within an enclosed settlement, perhaps with unenclosed origins, undertaking various agricultural, craft activities and metalworking. The settlement developed adjacent to a linear boundary, set within a wider agricultural and pastoral farming landscape. The site is quite different in size and character to two other near contemporary settlements, located close by in similar landscape locations at Wanlip (Beamish 1998) and Beaumont Leys (Thomas 2008c), this difference perhaps reflecting alternative settlement roles.

The pottery assemblage contained large numbers of large sherds and substantial proportions of vessels representing a significant regional assemblage of Scored Ware. The radiocarbon dating suggests a middle Iron Age date for the majority of the activity at the site. The presence of very small quantities of probable later Iron Age pottery shows broad cultural links, and suggests a later date for a few features.

The detailed excavation methodology, including systematic excavation of ditches and pits, together with targeted environmental sampling of phosphate and soils, has aided understanding and interpretation of the various settlement features. The GIS analysis has also produced rewarding results, indicating clear spatial distributions and usage of the settlement space.

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