# Iron Age settlement at Blackstone, Worcestershire

## Assessment of site archive and updated project design

## Extract

**(English Heritage PNUM5246)**

Derek Hurst, Laura Griffin, Elaine Morris, Elizabeth Pearson, Fiona Roe and Peter Woodward

13 August 2007
Revised 11 October 2007



Field Archaeology Service,
Worcestershire County Council,
Woodbury,
University of Worcester,
Henwick Grove,
Worcester WR2 6AJ

Project 2751
Report 1557
WSM 36109

f:\field section\projects\current\p2751 blackstone excavation\assessment\3 assessment report\project team extract of revised p2751blackstone assessment 2007 and upd.doc

## Contents

# Iron Age settlement at Blackstone, Worcestershire: assessment of site archive and updated project design

## Derek Hurst

## Part 1 Project summary

*This project relates to a pre-PPG16 excavation that was undertaken in the 1970s in advance of aggregate quarrying in north Worcestershire, when large areas were being removed without any formal archaeological provision. This work was focussed on an enclosure discovered through aerial photography, and this was revealed to be of Iron Age date and was associated with domestic features. The fieldwork featured advanced use of techniques for the gathering of environmental data about the site and its region. The archive is valuable archaeologically as there has been little archaeological work in this region of north Worcestershire since, and besides remains of Iron Age date are relatively uncommon across this part of the Midlands.*

*An assessment of the archive is presented and it is proposed that, since the site archive is in a reasonable state, there is a valuable opportunity to complete the site analysis and produce a report for dissemination. The project has demonstrably a strong potential to also address a range of research priorities identified for the west Midlands, and for aggregates producing landscapes in Worcestershire.*

*An updated project design is also presented for the completion of site analysis and dissemination, which will enable the information in the archive to be made more widely available for both research and the management of sites of similar date in the region, and specifically within the live aggregates landscape of the north Worcestershire Severn valley. The project would fulfil ALSF objectives by maximising the benefit of earlier work towards a better understanding of the Iron Age period so as to make future management more effective. The project involves the community by relying on volunteers for the further processing of some of the site finds (marking the worked flint) which together with the wider dissemination, including an intended link with outreach being undertaken through another ALSF project (PNUM4747), would also serve to meet ALSF objectives. Therefore the project is brought forward as an additional application for Aggregates Levy Sustainability Fund (ALSF) funding.*

# 1. General introduction

The Blackstone site (NGR SO 792736; WSM 236; Fig 1) is an enclosure of *c* 1.5a, located on a promontory above the River Severn, north of Worcester and between Stourport-on-Severn and Bewdley, and was part of Wribbenhall in Kidderminster parish. Cropmark evidence first drew attention to this specific site as photographed by Arnold Baker in 1957 (WSM 7260). The site was substantially excavated in three seasons in the 1970s.

This is, therefore, a backlog archaeological project arising from pre-PPG16 gravel extraction and the proposed project would unlock the potential of the archive to generally inform the research debate about the Iron Age in the region, and especially the apparent contrast between Iron Age cultures in south and north Worcestershire. Such data would also be valuable for informing management strategies relating to plans for future mineral extraction in the wider region.

An Audit report has already been carried out on the archive (Hurst and Pearson 2007). The Assessment report comprises a more detailed consideration of the archive, especially with regard to its potential for meeting defined research objectives. Parts of the Audit report are included in the Assessment report where relevant.

## 1.1 Planning background

Quarrying in the Blackstone area was initially at Lickhill Quarry, a 40ha area, which received a series of planning permissions from 1948 onwards, and then later at a second quarry (Brant Farm), covering 12.5ha immediately to the north, which was granted planning permission in 1970 and worked by Birmingham Sand and Gravel Co Ltd in conjunction with the latter stages of the then permitted area at Lickhill Quarry. The area subject to this proposal for ALSF funding once formed part of the Brant Farm quarry site.

As was usual for the time no archaeological conditions were placed upon these workings, although later extensions in 1997 and 1999 were subject to a pre-determination evaluation and a watching brief respectively, but neither of these recorded deposits of note.

Reserves at both quarry sites are now exhausted and the area has, in the main, been restored to agricultural use (currently as a pasture field).

## 1.2 Archaeological background

The Iron Age period in Worcestershire is generally ill-studied as there have been few opportunities to implement archaeological work, and where archaeological work was undertaken, it is still awaiting publication in the case of Beckford, though fortunately the latter is being currently addressed through funding from ALSF. Several major hillforts typically mark the period out in the landscape though there is relatively little known about these from archaeological study, and now that they are protected through scheduling further intrusive investigation is unlikely to happen.

Post-PPG16 is allowing some headway in the study of the period as smaller sites are coming to light in the general landscape and are being recorded in the course of development eg in central Worcestershire at Wychbold (Jones and Evans 2006), and sometimes such sites are rather enigmatic eg the solitary pit at Madeley Heath in north-east Worcestershire (Hurst and Pearson 1996). Also the recent major discovery of (at the time) of the largest Iron Age coin hoard in the country from a previously unknown site just north of Pershore, together with an associated gold torc

fragment (Hurst 2000), adds to the impression that there is still much to learn about the Iron Age in the region.

Blackstone is the northern end of the gravel terrace on the east bank of the River Severn just before it enters the Severn Gorge (north Worcestershire/south Shropshire), where the archaeological evidence is largely obscured both by tree cover (Wyre Forest) and the absence of gravel terraces. Few opportunities have arisen in the modern era to investigate the archaeology of this area during the course of development or otherwise, with the exception of pipeline work (Dinn 1992; Jackson *et al* 1994) which was characterised by lithics indicative of Mesolithic, Neolithic and Bronze Age activity, whereas Iron Age and Roman activity was poorly represented.

The River Severn gravel terraces are well-known for revealing large and complex areas of cropmarks, which constitute some of the most striking representations of archaeology in a region that also has few earthwork remains which predate the medieval period. In many cases the cropmarks have been quarried away without any archaeological record as they related to areas for which old permissions existed. More recently this imbalance has begun to be corrected by work at Clifton and Ripple, both being areas to the south of Worcester. No such modern opportunity has arisen to the north of Grimley and Holt, some 11km south of Blackstone.

The Blackstone site first came to notice in the late 1950s when the enclosure cropmark was first recorded by aerial photography. Due to its regularity of form the cropmark was thought to be of Roman date and, therefore, interpreted as a military camp by Graham Webster.

With the express permission of the landowner (Birmingham Sand and Gravel Co Ltd) and the co-operation of the farmer (Mr G O Whitman-Heywood) together with the support of the Kidderminster Archaeological Society (especially Ian Walker) salvage recording and excavation at Blackstone were undertaken in 1972, 1973 and 1977 in advance of the sand and gravel extraction, and this was under the direction of Alan Hunt (AH; Hereford and Worcester County Council). Funding was supplied as follows:

> 1972 season (450m$^2$ stripped; July-October) was funded by DoE, via the Avon-Severn Valleys Research Project;
>
> 1973 season (1300m$^2$ stripped; July-August) was also funded by DoE, with AH paid by Worcestershire County Museum. (Hereford and Worcester County Council);
>
> the 1977 season (August-September) was funded almost entirely by the Manpower Services Commission, while AH was paid by Dorset Institute (later Bournemouth University);
>
> and a 1984 watching brief.

Overall an area of *c* 2500m² was investigated comprising about one-third of the enclosed area. The enclosure and associated activity was dated to the later Iron Age, for which three phases have been defined. Associated artefactual and ecofactual assemblages were recovered. Slight evidence of Mesolithic, Early Bronze Age and Romano-British activity was also recorded.

Elements of post-excavation analysis and descriptive/analytical text have been produced in the past by Alan Hunt (at Bournemouth University) and Peter Davenport (formerly at Bath Archaeological Trust and Oxford Archaeology but now at Cotswold Archaeology). A number of specialist reports have also been commissioned but need

updating. It is believed there has been limited progress on the report since the mid 1980's. Funding for post-excavation work has been as follows:

> the Manpower Services Commission (MSC) in 1977-78 funded significant post-excavation work by Peter Davenport.

The aggregates resource assessment (PNUM 3966) currently in progress has concluded that the Blackstone site is 'the other outstanding backlog quarry site', other than the Beckford site which is presently in receipt of ALSF funding for completion to publication (Jackson and Dalwood 2006, section 22.2.6), and Blackstone is listed under the *Period specific goals* (*ibid*, section 22.3).

## 1.3 Relevance to ALSF objectives

The ongoing ALSF-funded Worcestershire Aggregates Resource Assessment (PNUM 3966) has highlighted the assessment and analysis of the Blackstone site archive as important for enhancing the research framework for the Iron Age in the Worcestershire aggregate production area (Jackson and Dalwood 2006).

Specifically the completion of the project would deliver under the ALSF Priorities Objectives as follows.

The project is focussed on a 1970s excavation and so would 'deliver the full benefit of the work done in the 1970s for a wide range of audiences, both public and professional'. Where Iron Age sites are present in aggregates areas the undertaking of this project would provide greater information, and so would' address the need for greater knowledge of Iron Age sites in north Worcestershire in order to better characterise this period, thereby developing the capacity to better manage this resource in future'. (*ALSF Priorities Objective 1 -Core English Heritage objective)*

Through the undertaking of analysis of this important site in a poorly understood aggregates area the project will assist in the effort to 'provide data for the formulation of effective strategies towards the protection of the historic environment' by enabling the analysis and dissemination of important data arising from past aggregate extraction. It is intended to develop volunteer support for the project and so through this and links to the ALSF *Unlocking the Past* project, which is already on-going, to 'spread knowledge about conservation issues, and the knowledge benefits of aggregates extraction, thereby raising the profile of the positive benefits of the extraction'. (*ALSF Priorities Objective 2)*

The ALSF *Unlocking the Past* project (Jacobs and Jackson 2006, and on-going) will benefit from the undertaking of the Blackstone project as it will be able to use up-to-date analysis from this site for and so 'make it possible to integrate this with local education, interpretation and outreach'. (*ALSF Priorities Objective 3)*

The project, therefore, would meet a range of the English Heritage ALSF core objectives, as well as the locally defined objectives of the project in relation to aggregates production in Worcestershire (Section 1.4).

## 1.4 Aims and objectives of the overall project

The broad aim of the overall project is to make accessible the information within the Blackstone Archive to Professional Archaeologists, Archaeological Curators, Planners, Aggregates Industry and the general public.

Primary project objectives are as follows:

- to further characterise the Iron Age archaeological remains of north-west Worcestershire through the detailed analysis and reporting on the 1970s excavations, with special reference to a comparison between the contrasting pictures of Iron Age settlement patterns in north and south Worcestershire (especially Conderton Camp and Beckford). In this context, the site at Blackstone provides the only extensively sampled example of an Iron Age settlement. Associated artefactual and environmental assemblages have the potential to provide important information relating to the economic basis of the settlement. There is also the potential for comparison with assemblages from better understood areas of the County and the West Midlands as a whole and thus to reveal any local variations which might be present (ALSF PO1).

- to inform the strategic management process relating to similar sites and sites of similar period through the provision of data on a site in north Worcestershire where Iron Age sites have rarely been excavated (ALSF PO1 and 2);

- to augment regional research by developing appropriate themes as identified in Exploring our Past (EoP98), and the West Midlands Research Framework. (http://www.iaa.bham.ac.uk/research/fieldwork_research_themes/projects/wmrrfa/sem2.htm), where, for instance, aggregate areas have been identified as having a particularly significant role for understanding the nature of later prehistoric settlement (Hurst 2002), for instance (ALSF PO1 and 2):

  > *There should be adequate funding to realise the full potential of later prehistoric sites, and this should extend to the development of active research programmes. These would be particularly important for the investigation of specific types of sites (eg hillforts) which are highly characteristic of the region, and where developer-funded work is unlikely to ever facilitate any new study. Museum archives and finds from earlier important excavations and other discoveries should also be revisited with a view to fresh study.*

- To address the national research *foci* for the Iron Age defined by Haselgrove *et al* (2001), such as working towards more tightly dated deposits (ALSF PO1 and 2);

- To enable aspects of the site archive, including the artefacts in particular, to be made available to specific audiences, such as local schools, for the purposes of informing about the past from a local and regional perspective (ALSF PO2 and 3);

- To disseminate the overall results of the project in a way that reaches a larger audience, including the wider public (ALSF PO2 and 3).

The analysis and dissemination of the project archive would also support the recently defined wider strategic focus on the River Severn (English Heritage 2004) by contributing to the general understanding, research and future management of the archaeological resource in the river valley.

## 1.5 The archive

The site archive has been reconstituted at the offices of the Worcestershire Historic Environment and Archaeology Service at the University of Worcester in April 2007 through the coalescing of holdings from the Worcestershire County Museum at Hartlebury and from Bournemouth University, the latter formerly in the keeping of the

site director, Alan Hunt. Further material was discovered and added in late July during the Assessment stage.

Ownership of the archive would strictly lie with the WHEAS as the successor body of the archaeology service of the Worcestershire County Museum Service, and the archive will be deposited with the Worcestershire County Museum at Hartlebury at the end of the project.

# 2. Archive assessment

An archive audit was previously undertaken in order to assemble the archive, to produce a detailed inventory, and to initiate communication with other potential collaborators on the project (Hurst and Pearson 2007). The audit report has been used as the foundation of the assessment stage, with the continuing updating of archive inventories, including as more archive has come to light. The assessment reported here is intended to establish whether it is worthwhile to proceed to a further stage of analysis and/or reporting/other dissemination. The latter would also be pursued as an approach to English Heritage for funding through the Aggregates Levy Sustainability Fund for the Worcestershire Historic Environment and Archaeology Service (WHEAS).

The archive assessment is Stage 2 of a potential 3-stage project with one further stage outstanding:

Stage 3 Analyses and dissemination;

and is conducted in accordance with MAP2 (1991) and with reference to EoP98 and the West Midlands Regional Research Framework (http://www.iaa.bham.ac.uk/research/fieldwork_research_themes/projects/wmrrfa/seminars.htm and work in progress).

It is accompanied by a costing and programme period (Updated Project Design) for the carrying out of Stage 3. Estimated budget figures and proposed timetabling for subsequent stage of the project are also presented and would allow delivery of the completed project within the currently agreed round of the ALSF (to March 2008).

The Updated Project Design presented here as the assessment stage has been produced by the WHEAS Field Section in consultation with the County Archaeology Officer, and the HER Manager, and in consultation with English Heritage (Peter Busby, Dr Helen Keeley, and Kath Buxton).

## 2.1 Aims and objectives

The principal aim of the Assessment has been to establish the potential of the Blackstone archive to usefully undergo new analysis in order to extract data useful for research and/or management, and relating to professional and other dissemination, before preparing it for museum deposition.

*Objectives*

1) To assess how far there is a need to rework any site stratigraphic analysis given the advances in techniques and knowledge since the 1970s;

2) To assess whether the currently drafted specialist reports need updating. And, if so, how much work this would involve;

3) To assess whether categories of find not yet catalogued or reported on require further work. And, if so, how detailed this work should be, including the completion of finds processing;

4) To establish the extent of illustration that would be appropriate depending on the range of dissemination requirements;

5) To continue re-uniting the archive wherever possible;

6) To continue re-ordering and reboxing the archive as appropriate for transfer to the recipient museum;

7) To develop a strategy for the dissemination of results from Stage 3 to an appropriate audience.

## 2.2 Methods of the archive assessment

Checking the stratigraphic sequence in tandem with current dating from pottery etc especially of the defences in order to ascertain how robust the current site sequence is (re Assessment Objective 1);

Consulting with specialists about their report. Volunteers will be invited to participate by processing the Roman and post-medieval pottery (re Assessment Objectives 2 and 3);

Detailed consultation with an illustrator to establish whether the current draft plans can be used and whether finds drawings already done can be used, and determine the extent of any new illustration (re Assessment Objective 4);

Arrange with Hereford Museum for the return of the radiographs (re Assessment Objective 5);

Continue liaison with the Worcestershire County Museum to ensure that storage standards are met (re Assessment Objective 6;

Make contact with various parties/stakeholders and assess how dissemination might be designed to reach as wide an audience as appropriate for a project of this content and scale (re Assessment Objective 7).

## 2.3 Site archive assessment

Following Stage 1 when the archive was assembled in Worcester and an outline appraisal (location, quantities, survival and availability) carried out on it (Audit), an assessment of the archive was instituted, alongside which discussions continued with the original excavator (Alan Hunt) and other collaborators on the project. Further sections of the archive were brought to light in Bournemouth during the assessment period and reunited with the Worcester collection.

Where materials are classified below against existing type-series these are as follows: pottery fabrics (Hurst and Rees 1992 and http://www.worcestershireceramics.org/), and ceramic building material fabrics (Hurst 1992).

### 2.3.1 Stratigraphic record

| | |
|---|---|
| 19 | field note books |
| 965 | context sheets |
| 13 | large-scale site plans (1977 season) |
| 5 | working plans |
| 11 | large site plans (derived ie not original) |
| 14 | level sheets (300 nos only) |
| 53 | drawn profile/section sheets |
| 243 | black and white photos (35mm) |

82 black and white photos (medium format)

505 colour slides (476 site, but including slides of 24 ironwork, 4 pot, 1 rotary quern)

*Field record*

The notebooks have had descriptive fields and relational data extracted and then transferred onto separate context sheets, and any duplicate context numbering has been eliminated by a single continuous numbering system across seasons.

However, most of the original plans (except the 1977 season) and nearly all the main section drawings are missing; but in both cases this is counter-balanced, that is by a complete set of derived site plans and by 48 'duplicate' original section/profile drawings. In addition two original section drawings across the major enclosure ditches from the 1973 season survive, and one from the 1977 season.

It is noted that some renumbering of 1972 contexts occurred at a later date, but it is not clear currently whether this has be implemented across the whole archive, including finds marking, so further checking is needed.

*Stratigraphic analysis*

A detailed draft report by the excavators already exists for the structural elements of the site (some editing would be necessary). This indicates several phases of activity (Bronze Age, Iron Age, Roman and post-Roman) with the Iron Age being the principal phase. For the Iron Age a series of defences (ditch and bank with recuts and a later palisade and subsequently an outer ditch added) with an internal annexe There are three alternative interpretations of the gateway development. Internal features include:

9 posthole buildings

1 possible 'street'

5 pit groups

In addition there are many possible posthole clusters and isolated pits.

Though no formal matrix has been produced the excavators have phased the Iron Age site into three sub-phases based on the stratigraphic data. These sub-phases relate only to the defences in the main, whereas in the interior of the enclosure there is little obvious evidence for any multiple phasing, though analysis here is made difficult by the lack of strongly differentiated structures. No detailed examination of the defence sequences was possible at this stage as one factor would be the application of dating from the pottery and the presence of the main excavators, and so it is proposed that this is carried out at the next stage of final analysis. However, the brief assessment of the dates associated with the ditch deposits indicates that the enclosure ditches have a good sequence of Iron Age pottery.

Apart from the defences the main structure types identified by the original excavators were nine buildings and pit groups. Initial assessment indicates that these are well founded interpretations of the archaeological data, though no plan has yet been produced which shows all these plotted. Some features were curious (ie 3m wide circular ditches either partial of complete) and require further investigation in terms of their surviving record and whether there are similar features on other sites.

In general the current stratigraphic interpretation carried out in the late 1970s seems sound though there are critical junctures where it would be essential to revisit the

evidence to ensure that site analysis has been firmly established on accurate and convincing elements of the site record (eg defences as above).

Careful attention was paid in the 1970s to establishing the extent of site truncation through ploughing, which was not as bad as on some other sites of similar type, for in a few instances near-surface features still survived eg the hearth 2009 at the north end of the site, and in other cases features were still substantial in depth (eg many of the pits were up to 1m deep). However, animal (rabbit, mole) burrows were scattered across the site and in some areas seemed to have erased any more minor archaeological features. Interestingly it was noted that this activity was most common in the vicinity of the former rampart which would clearly have formed an attractive home for the local rabbits.

In the light of the flint and pottery assessment the Mesolithic/Early Bronze Age period needs to be added to the report structure, and fortunately this can be easily accommodated without renumbering other periods.

*Assessment of research potential*

The site is unusual given its location immediately overlooking the River Severn and close to a potential fording point. The site may represent a trading point rather than a typical settlement and this should be considered in any final consideration of the site layout and associated finds. The rarity of Iron Age remains in this part of Worcestershire indicates that there is a strong case for the full and final dissemination of this site which would probably as a result become a period type-site for the region.

### 2.3.2 Inventory of finds

3.5 boxes of pottery

1.5 boxes (glass, stone, cbm, daub, flint, clay pipe, ceramic objects, worked bone, iron)

7 boxes of environmental (bone, charcoal, flots)

| type | count | weight(kg) |
|---|---|---|
| prehistoric pottery | 577 | 12.437 |
| briquetage | 190 | 2.295 |
| Roman & later pottery | 414 | 4.311 |
| ceramic building material | 222 | 2.776 |
| ceramic objects | 3 | 0.895 |
| fired clay | 101 | 0.210 |
| clay pipe | 63 | 0.110 |
| iron objects | 77 | 1.08 |
| stone objects | 4(10) | - |
| burnt stone | 59 | - |
| flint | 159 | - |
| glass | 52 | 0.995 |

*Table 1 Quantification of artefacts (figures in parentheses indicate maximum known assemblage size from documentary source)*

2.3.3 **Prehistoric pottery and briquetage (*by* Dr E Morris)**

The assemblage of 577 sherds (12.437kg) of Iron Age pottery and 190 sherds (2.295kg) of briquetage was examined to determine:

1. if the original material was all still present in the archive;
2. whether there was any new material not seen and recorded previously; and
3. whether there could be any improvement of the analysis and report produced by this author for Alan Hunt in 1979.

The handwritten records gathered in 1979 by the author were entered into spreadsheets. The pottery and briquetage now in two archival boxes correlates to the 1979 data in all but a single case (highlighted in pink on the spreadsheet) which indicates that this particular category of material has been well-curated.

In addition, there are 22 sherds (561 grams) from an Early Bronze Age Collared Urn-type vessel which had not been previously viewed by this author. This vessel does not appear to have been fully reported upon in the past and awaits full analysis.

Condition

The Iron Age pottery is in very good condition with many large sherds or large parts of vessels present. The surfaces of the sherds are well-preserved and there appears to have been due care and attention to detail during the finds processing stage of this excavation in the 1970s as it is possible to identify soot still preserved on the exterior surfaces of sherds and burnt residues on the interior surfaces. The Bronze Age pottery is also in very good condition with many large sherds present and still displays evidence of fine potting with crisp decoration, strong surfaces and smoothed or nearly burnished interior surface visible.

*Assessment of research potential*

This is a significant assemblage of Iron Age pottery for the west Midlands region, which is an area where there has been little study of Iron Age sites to date, though with some notable exceptions such as Beckford in south Worcestershire (Wills forthcoming). The assemblage offers the opportunity to compare with hillfort sites to the south (eg at Conderton and Bredon Hill; Thomas 2005 and Hencken 1939 respectively).

The location of the site on the river opens up the possibility that it served as a trading post or was otherwise affected in terms of site economy by the presence of the river. Good preservation and curation has served to maintain the inherent potential for further study of this assemblage.

The site also offers the valuable opportunity to both add to the stock of knowledge about Iron Age pottery in the region and to increase the information about Iron Age pottery and briquetage in the region. Since the 1970s there has been considerable development in current understanding of the nature of depositional practices, vessel sizes and their uses, and trade and exchange of pots and salt containers in Britain, and it will now be possible to apply this to the Blackstone assemblage.

One of the most peculiar aspects of the briquetage assemblage from Blackstone is that it is dominated by the sandy, marly fabric rather than the organic-tempered fabric type. If this observation is confirmed (see below Task 3), it is important to discuss whether this pattern is typical of the trade of briquetage vessels from

Droitwich to the north and west of the production site, as well as to the east and south at contemporary sites or contemporary phases of sites in the region.

Radiocarbon dating

Unfortunately, there are no examples of thick, burnt residue on the interior of sherds which would be suitable for submission for radiocarbon assay. All examples are quite small and thin rather than being significantly 3-dimensional.

### 2.3.4 Later pottery (*by* Derek Hurst)

| Material | Type | Total | Weight |
|---|---|---|---|
| Pottery | Roman | 35 | 457 |
| Pottery | medieval | 4 | 90 |
| Pottery | post-medieval | 197 | 3297 |
| Pottery | modern | 178 | 467 |

*Table 2 Quantification of later pottery by period*

| period | Fabric | Fabric common name | Total | Weight |
|---|---|---|---|---|
| Roman | 12 | Severn Valley ware | 23 | 337 |
| | 13 | Sandy Severn Valley ware | 2 | 6 |
| | ?13 | Sandy Severn Valley ware | 1 | 36 |
| | 22 | Black-burnished ware, type 1 (BB1) | 7 | 58 |
| | 32 | Mancetter/Hartshill mortarium | 1 | 18 |
| | 98 | Miscellaneous Roman wares | 1 | 2 |
| medieval | 69 | Oxidized glazed Malvernian ware | 1 | 8 |
| | 70 | Southern white ware | 1 | 1 |
| | ?70 | Southern white ware | 1 | 46 |
| | 81 | Stonewares | 12 | 63 |
| | ?141 | Oxford Y ware | 1 | 41 |
| | 99 | Miscellaneous medieval wares | 3 | 82 |
| Post-medieval | 75.1 | North Devon gravel-free ware | 12 | 167 |
| | 78 | Post-medieval red wares | 130 | 1187 |
| | 81.7 | Possibly Staffordshire stoneware | 1 | 40 |
| | 83 | Porcelain | 1 | 4 |
| | 84 | Creamware | 6 | 32 |
| | 90 | Post-medieval orange ware | 2 | 64 |
| | 91 | Post-medieval buff wares | 27 | 1291 |
| | 108 | Midlands purple ware | 2 | 314 |
| | 150 | Deerfold/Lingen ware | 1 | 13 |
| modern | 81.4 | Miscellaneous late stoneware | 6 | 58 |
| | 85 | Modern stone china | 172 | 443 |

*Table 3 Quantification of later pottery by fabric type*

There was a total of 414 sherds weighing 4.311kg, which ranged in date from Roman to modern. The majority of this material was of post-medieval and modern date, especially from the 18th century onwards. The majority of this much later pottery was from the ploughsoil or from the top layers of features, except in the case of F1 and F3, and a small number of other unidentified features. Where this later pottery was from the top layers of features this does not prejudice the integrity of any of the relevant features as the layers were separately excavated and recorded – hence it is clear from the records that such later material is only largely from the top layers.

Archive records indicate that some of the Roman pottery from the 1972-77 seasons is missing (possibly about 30 sherds as listed by Annelise Wilson and Dr E Morris) and these records indicate that this material was also mainly from the topsoil or from the top layer of any features, except for the following: 1548 (modern disturbance area), and 1549 (posthole in top fill of enclosure ditch). Illustrations of 6 rims (Severn Valley and black-burnished wares) do survive.

It was noted that even though the sample of late medieval and early post-medieval pottery was small that a relatively high proportion of it was regional (north Devon ware) or imported wares (German stoneware) which would most likely have been brought into the Midlands along the River Severn. This would, therefore, constitute further direct evidence for the significance of the river for trade in the region as indicated by historical evidence. In contrast the Roman pottery was quite ordinary and was typical of the type of material commonly found over most of Worcestershire where arable agriculture was extended in this period, and where the mechanism for creating the scatter was probably the manuring of fields with domestic waste. No obvious indications of settlement activity of the Roman or later periods were identified.

*Assessment of research potential*

No further work is required as the majority of the later pottery was from the ploughsoil or from the top layers of prehistoric features.

### 2.3.5 Ceramic objects (*by* Laura Griffin)

This group consists of three objects weighing 895g, and included two loomweights of Iron Age date, one complete and one fragmentary.

The complete example was retrieved from Area D, context 0022 and took the form of large ‘brick-shaped’ object with a large hole drilled through slightly off-centre towards one end. At present no parallel has been found for this particular form of loomweight. The presence of a La Tène III type brooch also within this context would suggest a late Iron Age date for this object.

The other fragment came from context 1502 and was identifiable as the corner of a triangular loomweight. This form is more commonly seen in Worcestershire with notable parallels coming from the large excavation at Beckford (Hurst, forthcoming).

The remaining object was a clay marble of late post-medieval or modern date from the topsoil of area T.

*Assessment of research potential*

Very little further work can be done on the objects themselves but identification of a parallel for the near-complete loomweight should be investigated and both should be illustrated, and a brief note written for publication.

### 2.3.6 Ceramic building material (*by* Laura Griffin)

Ceramic building material from the site amounted to 222 fragments weighing 2.776kg. This material could be separated into two distinct groups consisting of that which was Roman and that of medieval and later date.

Roman

All Roman material was of a soft, fine bright orange fabric and generally highly abraded. The assemblage comprised 12 pieces of tile, two pieces of brick and 31 small fragments of undiagnostic material which could only classified as brick/tile. None of the tile was diagnostic or displayed other distinguishing features such as signature marks or cutaways. A small quantity may also be lost as Roman tile was also recorded in the paper archive as associated with contexts 1617, 1548 (by Annelise Wilson).

Medieval and post-medieval

All tiles of the medieval and post-medieval periods were of flat roof tile form, a small number of which were nibbed. This type of tile is of a long-lived type, which was produced between the 13th and 18th centuries in this region. However, where identifiable the fabric of the tiles fell mainly into types known to be of 16th-18th century (fabrics 2d and 5), with only a very few fragments thought to be earlier in date.

Two bricks and a small number of fragments were also of a distinct fabric identical to tile fabric 2d and therefore considered to be of the same date range as the tile above.

Modern

Remaining ceramic building material was of modern date, coming primarily from the top and plough soils of the site and consisting of high-fired roof tile and brick fragments.

*Assessment of research potential*

No further work required.

### 2.3.7 Fired clay (*by* Laura Griffin)

The fired clay amounted to 101 fragments weighing 210g. All was identified as daub and although the majority of pieces were small, they had previously been divided into three fabric types (Fabrics A, B and C), and thin sections taken. The results of this thin section analysis have been located to Southampton University and would be available for any further study. The sections were also found in small envelopes bagged up with the finds themselves.

*Assessment of research potential*

The presence of thin sections from this material group facilitates the proper identification and analysis of the local clay types. A priority would be to examine these thin sections and draw up descriptions which would then be of use when comparing similar types of find in the future.

2.3.8 **Clay pipe (*by* Laura Griffin)**

The clay pipe from the site consisted of 63 stem and two bowl fragments weighing 110g. All were from topsoil or contexts containing other material of post-medieval or modern date. Stems were of varying thickness and none displayed stamps or were attached to spurs that had stamps on them.

*Assessment of potential*

No further work required.

2.3.9 **Iron objects (*by* Laura Griffin)**

Metalwork consisted of a 77 iron objects weighing 1.08kg and of varying preservation and date. A total of 26 items have been previously illustrated, clearly from the radiographs. However, although some conservation notes survive (1972 season), none of this drawn ironwork is present in the archive and likewise, the radiographs are missing at the current point in time having been sent to Hereford Museum from English Heritage AML in error in 2006. Therefore, identification of the x-rayed finds has been made on the basis of the illustrations and conservation notes alone.

A large proportion of the assemblage (60 fragments) came from the topsoil or contexts of post-medieval date and later. This material consisted primarily of nails and pieces of modern tools or machinery.

Of the remaining material, all but two objects came from a single context (0022) and consisted of the best preserved and most interesting material within the group. However, unfortunately these are the finds that are no longer within the archive. Context 0022 can be dated to between the 1st century BC and the 1st century AD by the presence of a fibula from level 1 (0022.1), which although from the illustration appears to have been heavily corroded and slightly distorted, could still be identified as of La Tène III type (cf Hattatt 2000, fig.149, no.12). The remaining identifiable finds from the context consisted of a hook, a pin, a pierced bar of unknown function, two blade fragments, a riveted strip, a buckle, a rivet, a sleeve and an unidentified object which was heavily corroded but appeared to have a flat, rectangular section.

The final two iron finds of interest from the site consisted of a chisel from context 0023 and a further brooch from context 0046.3. The latter took the form of a Roman P-shaped bow brooch with returned foot and could be dated to between the 2nd and 3rd centuries (cf Hattatt 200, fig 225). The presence of two iron brooches within the assemblage, as opposed to the more commonly found copper alloy types is relatively unusual and this coupled with a complete absence of copper alloy objects from the site is of particular note.

*Assessment of research potential*

The stratified ironwork from this site forms an interesting assemblage, despite the majority only ‘existing’ in the form of illustrations at present. The latter were done from the radiographs and are, therefore, quite suitable for publication. The ironwork from context 0022 is notable due to the early date of the context, the objects themselves and the number of objects coming from it.

Tracing the radiographs of this material should still remain a priority. However, in the event that these are not located, it is recommended that all existing ironwork, conservation notes and the illustrations be examined by a named specialist who is familiar with iron objects of the late Iron Age and early Roman periods.

2.3.10 **Stone objects (*by* Fiona Roe)**

Pieces of stone from 20 contexts were examined, being washed and dried as necessary. A x10 hand lens was used to identify the varieties of stone and all available details were listed in an Excel file (Blackstone.stonelist). In total, two worked stone objects were identified and two other less certain artefacts, together with 59 fragments of burnt stone. A further 20 pieces were considered to be unworked. It is regretted that 6 items, including 4 rotary quern fragments, have not been located.

The two certain objects are whetstones with clear working traces, both made from local Coal Measures sandstone. The smaller of the two from an Iron Age context (ST6; F313.5) is of some interest. It is incomplete, but recognizable whetstones of attested Iron Age date are somewhat elusive on many sites, including ones in Worcestershire. The larger whetstone (ST8; u/s, North End) is complete but was found unstratified. The size and shape of this whetstone suggest that it is likely to be of later date and is perhaps Post Medieval. It may be noted that pottery found in the topsoil was largely of Medieval and Post Medieval date.

Two other objects are less readily identified. A worn fragment (T; unstratified) of sandstone likely to be from the local Upper Coal Measures may be part of a rotary quern re-used as a rubber. A small spherical pebble from the river gravel (ST 5; context 1576; possibly Iron Age) is of a size suitable for use as a slingstone, though it is more usual for these to occur as grouped finds in a cache or similar deposit.

The missing rotary quern fragments (ST1-3 and uncontexted) might be of interest. The stone used for one of these (ST3) was described as conglomerate containing medium size pebbles with a maximum diameter of 1cm. The likelihood is that this is quartz conglomerate from the Upper Old Red Sandstone, a quern material that was very widely used, although Blackstone would be on the northern edge of the known distribution (Roe, in prep). Two of the other two missing quern fragments (ST 1 & 2) were described as being of granite. However if they are both made from igneous rock, a possibility is that this was another known quern material, the Squilver gabbro from near Bishop's Castle in south Shropshire (Roe 1999, 417), since the outcrop is only some 32 miles to the north west of the site. The fourth missing rotary quern fragment is known only from a photograph but appears to be a nearly complete lower stone. Two further items, ST 9 & 10, are also missing and of unknown type, but were described earlier as squared sandstone blocks.

The burnt stone amounts to 2.290kg and consists mainly of fractured pieces of pebbles of quartzite, quartzitic sandstone and sandstone, all of which could have been collected from the local gravels of the River Severn. There are also 8 small pieces of burnt coal, apparently without context details, but coal too occurs in the area, as for instance the Wyre Forest (Mitchell *et al*., 1961), so a limited use of this would be unremarkable. Further fragments of coal occurred amongst the unworked stone.

*Assessment of research potential*

With only one probable Iron Age artefact available for study, the potential for further research is limited. If the four missing querns could be located they might well provide material for further discussion and could help to bring out the differences between Iron Age sites in the north and south of Worcestershire. The burnt stone is entirely typical of Iron Age sites in general and calls for little further comment.

2.3.11 **Flint (*by* P Woodward)**

On receipt of the finds and surviving archive a rough count collation was undertaken without removing the material from bags. Much of the material is unmarked and

some individual finds have become disassociated from context, although for the 1973 finds these may be recoverable from the catalogue. The identity of the 1977 finds was established, the archive bags numbered by excavation season, and the finds collated with the archive, see above. A total of 159 flints was accounted for.

Although there is some numerical variation between the Archival Report (Woodward 1979) and the present Assemblage Composition (2007), see table in F1, this is slight and does not substantially alter the conclusions and assemblage description in Woodward 1983. However the latter report was written at a time when little else was available for comparanda, and it is now in need of revision in terms of archival record and description to enable comparison with sites and assemblages excavated and published since 1979, some 40 years ago!

In particular the lithic record should be reworked to enable a clearer comparison with the site and Mesolithic assemblage at Lightmarsh Farm, some 5km to the north in the Severn Valley (Jackson *et al* 1994, cf Appendix 1) – with a comparable description of lithic colour, cortex, dimension and source. Although the assemblage size at Blackstone (159 in number) is small in comparison to Lightmarsh Farm (1481 in number), the percentage composition bears some comparison:

| | **Blackstone** | **Lightmarsh** |
|---|---|---|
| Microliths | 9% | 29% |
| Cores | 4% | 24% |
| Blades (Long) | (64%) | 20% |
| Retouched | 16% | 15% |
| Scrapers | 7% | 12% |

*Table 4a Broad comparison of flint assemblages*

Although there are the obvious caveats, for instance of collection methods, feature groups and residuality, both sites have a high Mesolithic component.

However at Blackstone the assemblage suggests a Mesolithic-Neolithic transition, with the presence of lithics that can well be assigned to the Neolithic (eg fabricator), and perhaps some associated Neolithic pottery.

*Assessment of research potential*

As assessed above the assemblage, therefore, clearly offers considerable research potential due to the rarity of such collections in the region. For instance, study of the 6 flakes present from B77 (1027), a feature with Neolithic pottery, and comparison with the assemblage directly with that from Lighthouse Farm: indicates that there is an additional source of material in the Neolithic, producing shorter flakes, modified with a side retouch (see Table 4b).

| **B1977** | | **Dimensions (mm)** | | | **Type** | | **Colour** | **Cortex** | **Retouch** |
|---|---|---|---|---|---|---|---|---|---|
| (1027) | Desc. | L | Br | Th | Ja..92 | Wo79 | Ja.. 92 | Surface mm) | Location |
| 1 | Flake | 22 | 30 | 6 | T | Squat | (DG) | - | S |
| 2 | Flake | Brk'n | | 3 | S | Br'kn | (DG) | B (1) | S |
| 3 | Flake | 13 | 23 | 4 | T | Squat | LG | - | - |
| 4 | Flake | 21 | 11 | 3 | T | Long | CR | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Flake | 25 | 12 | 1 | T | Long | LG | - | - |
| 6 | Spall | - | - | - | - | - | (DG) | - | - |

*Table 4b Blackstone flint from Neolithic pit 1027 (Type: P- Primary; S Secondary; T-Tertiary. Colour: DG – Dark Grey; LG – Light Grey; CR – Cream; B – Beige. Cortex: B – Beige. Retouch: S – Side)*

This potential is affirmed by the current regional research framework as long as the importance of and the need for clear comparison in lithic assemblages in the West Midlands is acknowledged (Barfield 2002). In the area of Worcestershire, centred on the confluence of the Severn and Stour and north to Kinver, there are only a few sites that have produced stratified assemblages of the Mesolithic. The two sites at Blackstone and Lighthouse Farm have contrasting locations. The location of the Blackstone site is on flatter land near to the confluence of the two rivers, whilst the Lightmarsh Farm site is on a spur of land facing south and south-east with a steeper valley and stream, running south to the Severn, to the west. Any contrast in the two assemblages will be of value in understanding land exploitation and settlement in the area. The resulting data will certainly be valuable for future comparisons between sites in terms of their lithic distribution, surface collection, and mapping and future excavation sampling strategies.

### 2.3.12 Glass (*by* Laura Griffin)

The glass assemblage amounted to 52 shards of vessel glass, seven fragments of window glass and two marbles weighing 995g. In the main, the material was of modern date, although a small amount could be attributed to the post-medieval period with the earliest material being fragments of an onion bottle of 17th century date (context 3.4). All came from topsoil or contexts containing other post-medieval or modern material.

*Assessment of research potential*

No further work required.

### 2.3.13 Environmental remains (*by* Elizabeth Pearson)

*Sampling policy during excavation*

Environmental sampling was carried out extensively on the site throughout all seasons of excavation (1972, 1973, 1977 and a watching brief in 1984). Sample sizes ranged from 1L (mainly for charcoal extraction) up to 60 litres (Keepax and Paradine 1977). The large number of samples taken, and the use of a flotation machine was unusual for this period in time. Large animal bone was also hand-collected during excavation, although preservation was poor, with mainly cattle tooth fragments surviving.

*Method of analysis by P Paradine and C Keepax*

The samples were processed by flotation using a Siraf tank. The flot was collected on 410µm and 212µm sieves and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

It is assumed that the residues from the 1mm mesh were fully sorted by eye, although this is not discussed in the original report. The flots were fully sorted, and the seeds identified by P Paradine and cereals identified by Mr J R B Arthur. Nomenclature for the plant remains is not stated in the 1977 report but is likely to have followed the *Flora of the British Isles*, 2nd edition (Clapham, Tutin and Warburg 1962).

*Method of assessment (2007)*

Sample details from reports and documents prepared in 1977 were checked in order to show the presence/absence of remains or samples and which material has been previously analysed. Many charcoal samples were re-packaged as the original containers were large and take up unnecessary storage space (original labels were retained). In the process the potential for fragments to be re-analysed was briefly judged by eye. Reports and documents in archive available for assessment included:

- report on plant macrofossils from 1972-3 seasons of excavation by Carole Keepax and P Paradine
- published report (Journal of Archaeological Science) including a section on plant macrofossils with reference to Blackstone by Carole Keepax
- survey report (anon) comparing the 1973 seed analysis with existing species
- report on the charcoal (all excavation seasons) by Carole Keepax
- report on the animal bone (all excavation seasons) by Alison Locker

**Animal bone**

The preservation of the animal bone was poor, with the assemblage being dominated by cattle tooth fragments and bone slivers. This is similar to other poorly preserved assemblages found on sites with acidic soils in north Worcestershire, and the survival of material is only very fragmentary. No further work is, therefore recommended and the report by Alison Locker is sufficient.

No detailed inventory of this material was carried out for the 2007 assessment as it was too fragmentary for this to be use as most of the material was the shattered splinters of teeth, but the following is a summary showing the extent of survival, and there was a total weight of about 400g.

| year | no of contexts | comment |
|---|---|---|
| 1972-73, 1977 | 72 | Teeth and small bone slivers |
| 1973 | 2 | Fragments 'ox teeth' |

*Table 5 Animal bone*

*Research potential of the animal bone assemblage*

No work required.

**Plant macrofossil remains**

Blackstone Quarry was one of the first sites to make use of a flotation machine in Britain. The plant remains identified in a report by C Keepax and P Paradine (1977), and the 1972/1973 season flots from which they were recovered, do not appear be retained in the archive. A number of flots which are retained in the archive (Table 6) are from contexts not reported on by P Paradine, and for which there are no supporting records (including for example sample volumes). These include flots from 1972, 1973 and 1977.

| Context | Sample | Context type | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential For C14 |
|---|---|---|---|---|---|---|---|
| **1972 Flots** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BA inner ditch | 2 | | ? | ? | N | Y | N |
| 0003.7-8 | | | ? | ? | N | Y | N |
| 0025/0028 | | | ? | ? | N | Y | N |
| 0001 | | | ? | ? | N | Y | N |
| 0003.1 | | | ? | ? | N | Y | N |
| 0005.1-2 | | | ? | ? | N | Y | N |
| 0003.5 | | | ? | ? | N | Y | N |
| 0003.8 | | | ? | ? | N | Y | N |
| 0003.9 | | | ? | ? | N | Y | N |
| 0004.1 | | | ? | ? | N | Y | N |
| 0005.2 | | | ? | ? | N | Y | N |
| 0005.3 | | | ? | ? | N | Y | N |
| 0006.1 | | | ? | ? | N | Y | N |
| 0007.1 | | | ? | ? | N | Y | N |
| 0008.1 | | | ? | ? | N | Y | N |
| 0009.1 | | | ? | ? | N | Y | N |
| 0012.1 | | | ? | ? | N | Y | N |
| 0013.1 | | | ? | ? | N | Y | N |
| 0014.1 | | | ? | ? | N | Y | N |
| 0014.2 | | | ? | ? | N | Y | N |
| 0014.4 | | | ? | ? | N | Y | N |
| 0014.6 | | | ? | ? | N | Y | N |
| 0014.7 | | | ? | ? | N | Y | N |
| 0015.1 | | | ? | ? | N | Y | N |
| 0016.1 | | | ? | ? | N | Y | N |
| 0017.1 | | | ? | ? | N | Y | N |
| 0018.1 | | | ? | ? | N | Y | N |
| 0019.1 | | | ? | ? | N | Y | N |
| 0022 | 155 | | ? | ? | N | Y | N |
| 0022.1 | | | ? | ? | N | Y | N |
| 0022.2 | | | ? | ? | N | Y | N |
| 0023.1 | | | ? | ? | N | Y | N |
| 0025.1 | | | 8 | 8 | N | Y | N |
| 0028.1 | | | ? | ? | N | Y | N |
| 0030.1 | | | ? | ? | N | Y | N |
| | | | | | | | |
| 1973 Flots | | | | | | | |
| 136.1 | F072 | | ? | ? | N | Y | N |
| 139 | F204 | | 8 | 8 | N | Y | N |
| 139.1 | F206 | | ? | ? | N | Y | N |
| 139.10 | F207 | | 8 | 8 | N | Y | N |
| 139.15 | F200 | | ? | ? | N | Y | N |
| 139.2 | F203 | | ? | ? | N | Y | N |
| 139.3 | F208 | | ? | ? | N | Y | N |
| 139.4 | F191 | | ? | ? | N | Y | N |
| 139.6 | F192 | | ? | ? | N | Y | N |
| 139.8 | F201 | | 8 | 8 | N | Y | N |
| 139.9 | F193 | | 8 | 8 | N | Y | Y |
| 150 | F130 | | ? | ? | N | Y | N |
| 201 | F010 | | ? | ? | N | Y | N |
| 246.14-16 | F197 | | ? | ? | N | Y | N |
| 246 | F198 | | ? | ? | N | Y | N |
| 246.10 | F213 | | 16 | 16 | N | Y | N |
| 246.11 | F195 | | ? | ? | N | Y | N |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 246.12 | F194 | | ? | ? | N | Y | Y |
| 246.13 | F196 | | ? | ? | N | Y | N |
| 247.1 | F070 | | ? | ? | N | Y | N |
| 247.2 | F071 | | 4 | 4 | N | Y | N |
| 308 | F210 | | ? | ? | N | Y | N |
| 308 | F211 | | ? | ? | N | Y | N |
| 308 | F212 | | 8 | 8 | N | Y | N |
| 461 | F209 | | 8 | 8 | N | Y | N |
| 523 | F214 | | 8 | 8 | N | Y | N |
| 523.13 | F215 | | ? | ? | N | Y | N |
| | | | | | | | |
| **1977 Flots*** | | | | | | | |
| 1014 | S2075a | | ? | ? | N | Y | N |
| 1021 | S2051a | | ? | ? | N | Y | Y |
| 1027 | S2067a | | ? | ? | N | Y | N |
| 1039 | S2071a | | ? | ? | N | Y | N |
| 1504 | S2010 | | ? | ? | N | Y | N |
| 1549 | S2027a | | ? | ? | N | Y | N |
| 1550 | S2020a | | ? | ? | N | Y | N |
| 1550 | S2046a | | ? | ? | N | Y | N |
| 1550 | S2047a | | ? | ? | N | Y | N |
| 1550 | S2048a | | ? | ? | N | Y | Y |
| 2036 | S2025a | | ? | ? | N | Y | Y |
| 2039 | S2065 | | ? | ? | N | Y | Y |

*Table 6: List of flots (*1977 samples taken for C14 dating)*

The provenance and dating of the plant remains needs to be considered before the results of the original report are published (and any re-drafting of text is made). It was noted by Keepax and Paradine that many of the uncharred seeds had a relatively fresh appearance, and corresponded with species present in the modern day environment. It was suggested that these were likely to be modern and intrusive (Keepax and Paradine 1977; Keepax 1977). This interpretation of uncharred seed assemblages from well-drained archaeological deposits, which are not anoxic, is readily accepted in many modern reports. However, it was also suggested that the charred seed remains may derive from stubble burning, which was very common in the Bewdley area at the time that the report was written. Many of the charred species listed (including hazelnut shells) were both listed in the uncharred, and probably intrusive, seed assemblage and were also present in the local flora at the time of the excavation. These facts point to at least some of the charred remains being modern, rather than contemporary with the Iron Age features. Nevertheless, no charred cereal chaff or straw has been identified, as would be expected if stubble burning waste had contaminated the Iron Age assemblages. Also charred remains (see below); included widespread wood charcoal (this included relatively large fragments in some contexts) which are unlikely to have moved down the soil profile significantly

*Potential of the plant macrofossil assemblage*

The charred seed remains and cereal grains are present sparsely across the site, and therefore the level of interpretation which can be gained from the charred remains is low. The author has noted however, that the most abundant and common species found charred are unusual in assemblages from Worcestershire. One species (sandwort) may be particularly common on the loose sandy soils of the site.

No further work is, however, recommended on the uncharred or charred plant remains.

A summary of the AML report by (Keepax and Paradine 1977) will be prepared for publication, and the published Journal of Archaeological Sciences report on contamination of seed assemblages by Keepax (1977) will be referenced.

### Charcoal

Charcoal was found extensively across the site and was well sampled. Some fragments were collected as spot finds, and more was retained from flotation. Keepax (1979) carried out an analysis of a large number of the samples recovered from all seasons of excavation. Following an inventory of the charcoal material as part of this assessment (Tables 7a-b and 8), it appears that Keepax reported on the majority of samples recovered.

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential |
|---|---|---|---|---|---|---|
| | | | | | | |
| **1972 samples** | | | | | | |
| | | | | | | |
| 0001 | C5 | 7 | 7 | Y | Y | N |
| 0001 | C13 | 1 | 1 | Y | Y | N |
| 0001 | C4 | 27 | 27 | N | N | N |
| 0006 | C6 | 21 | 21 | Y | Y | N |
| 0001.1 | C49 | 4 | 4 | Y | Y | Y |
| 0001.1 | C17 | 11 | 11 | Y | Y | N |
| 0001/0002 | C22 | 18 | 18 | Y | Y | N |
| 0002.1 | C12 | 20 | 20 | Y | Y | N |
| 0002.1 | C28 | 18 | 18 | Y | Y | Y |
| 0002.2 | C40 | 5 | 5 | Y | Y | N |
| 0002.3 | C7 | 3 | 3 | Y | Y | N |
| 0003.1 | C55 | ? | ? | Y | Y | N |
| 0003.1 | C43 | 8 | 8 | Y | Y | N |
| 0003.2 | C20 | 24 | 24 | Y | Y | N |
| 0003.4 | C53 | 11 | 11 | Y | Y | N |
| 0003.7-8 | C44 | 41 | 41 | Y | Y | Y |
| 0003.7-8 | C47 | 3 | 3 | Y | Y | Y |
| 0003.8 | C45 | 17 | 17 | Y | Y | Y |
| 0003.9 | C46 | 7 | 7 | Y | Y | Y |
| 0004 | C27 | 17 | 17 | Y | Y | N |
| 0004.1 | C74 | 41 | 41 | Y | Y | N |
| 0004.1 | C50 | 45 | 45 | Y | Y | Y |
| 0004.2 | C76 | 11 | 11 | N | N | N |
| 0004.19 | C77 | 22 | 22 | Y | Y | N |
| 0004.2 | C74 | 6 | 6 | Y | Y | N |
| 0004.3 | C79 | 63 | 63 | Y | Y | Y |
| 0004.3-4 | C75 | 6 | 6 | Y | Y | N |
| 0004.3a | C78 | 1 | 1 | Y | Y | N |
| 0005.1 | C25 | 31 | 31 | Y | Y | Y |
| 0005.2 | C57 | 13 | 13 | Y | Y | N |
| 0006.1 | C54 | 18 | 18 | Y | Y | N |
| 0007.1 | C65 | 5 | 5 | Y | Y | Y |
| 0007.1 | C41 | 4 | 4 | Y | Y | N |
| 0008.1 | C51 | 1 | 1 | Y | Y | Y |
| 0008.1 | C26 | 1 | 1 | Y | Y | N |
| 0008.19 | C30 | 1 | 1 | Y | Y | N |
| 0009.1 | C42 | 1 | 1 | Y | Y | N |

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential |
|---|---|---|---|---|---|---|
| 0013.1 | C48 | 3 | 3 | Y | Y | N |
| 0014.1 | C14 | 2 | 2 | Y | Y | Y |
| 0014.2 | C63 | 1 | 1 | Y | Y | N |
| 0014.2 | C34 | 1 | 1 | Y | Y | N |
| 0014.2 | C33 | 8 | 8 | Y | Y | N |
| 0014.7 | C37 | 31 | 31 | Y | Y | N |
| 0014.7 | C38 | 1 | 1 | N | N | N |
| 0014.7 | C39 | 3 | 3 | Y | Y | N |
| 0016.1 | C69 | ? | ? | Y | Y | N |
| 0017.1 | C8 | 1 | 1 | Y | Y | N |
| 0017.1 | C9 | 6 | 6 | Y | Y | N |
| 0017.3 | C52 | 1 | 1 | Y | Y | Y |
| 0022 | C62 | 1 | 1 | Y | Y | Y |
| 0022 | C15 | 17 | 17 | Y | Y | Y |
| 0022.1 | C59 | 36 | 36 | Y | Y | N |
| 0022.1 | C73 | 23 | 23 | Y | Y | N |
| 0022.1 | C67 | 42 | 42 | Y | Y | Y |
| 0022.1 | C10 | 15 | 15 | Y | Y | Y |
| 0022.2 | C61 | 1 | 1 | Y | Y | Y |
| 0022.2 | C66 | 53 | 53 | Y | Y | Y |
| 0022.2 | C72 | 11 | 11 | Y | Y | N |
| 0022.2 | C71 | 1 | 1 | Y | Y | Y |
| 0022.2 | C70 | 5 | 5 | Y | Y | Y |
| 0022.3 | C64 | 1 | 1 | Y | Y | Y |
| 0023.1 | C58 | 36 | 36 | Y | Y | Y |
| 0023.1 | C60 | 3 | 3 | Y | Y | N |
| 0030.1 | C56 | 12 | 12 | Y | Y | Y |
| 0031.1 | C31 | 1 | 1 | Y | Y | N |
| 0036.1 | C29 | 1 | 1 | Y | Y | N |
| 0036.1 | C32 | 1 | 1 | Y | Y | N |
| 0041 | C35 | 21 | 21 | Y | Y | Y |
| BnH | C23 | 4 | 4 | Y | Y | Y |
| BnH | C24 | 38 | 38 | N | N | N |
| TT1 | C2 | 23 | 23 | Y | Y | Y |
| TT1 | C3 | 1 | 1 | Y | Y | N |
| TT1 | C1 | 1 | 1 | Y | Y | Y |
| TT2 | C19 | 11 | 11 | Y | Y | N |
| V1 | C21 | 5 | 5 | Y | Y | N |
| | | | | | | |
| **1973 samples** | | | | | | |
| | C10/73 | 1 | 1 | Y | Y | N |
| | C48/73 | ? | ? | N | Y | N |
| | C05/73 | 2 | 2 | Y | Y | N |
| 0106.1 | C13/73 | 4 | 4 | Y | Y | N |
| 0113 | C17/73 | 1 | 1 | Y | Y | N |
| 0113.2 | C12/73 | 1 | 1 | Y | Y | N |
| 0115.1 | C64/73 | ? | ? | N | Y | N |
| 0116.1 | C23/73 | 46 | 46 | N | Y | Y |
| 0119.1 | C41/73 | 10 | 10 | N | Y | Y |
| 0121 | | ? | ? | Y | Y | Y |
| 0125.1 | C09/73 | 15 | 15 | Y | Y | N |
| 0128.1 | C47/73 | 41 | 41 | Y | Y | Y |
| 0128.1 | C44/73 | 1 | 1 | Y | Y | Y |

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential |
|---|---|---|---|---|---|---|
| 0134.1 | C14/73 | 31 | 31 | Y | Y | N |
| 0135.1 | C06/73 | 2 | 2 | Y | Y | N |
| 0135.3 | C34/73 | 1 | 1 | N | N | N |
| 0136.1 | C08/73 | 6 | 6 | Y | Y | Y |
| 0136.1 | C16/73 | 1 | 1 | Y | Y | N |
| 0136.3&4 | C37/73 | 4 | 4 | Y | Y | N |
| 0136.6 | C33/73 | 6 | 6 | Y | Y | N |
| 0139.1 | C57/73 | 9 | 9 | Y | Y | N |
| 0139.8 | C66/73 | 26 | 26 | Y | Y | N |
| 0139.8 | C56/73 | ? | ? | N | Y | N |
| 0149.1 | C52/73 | ? | ? | Y | Y | N |
| 0150.1 | C22/73 | 45 | 45 | Y | Y | N |
| 0150.1 | C28/73 | 54 | 30 | Y | Y | N |
| 0157 | | ? | ? | Y | Y | N |
| 0158.1 | C54/73 | 1 | 1 | Y | Y | Y |
| 0181.1 | C20/73 | 12 | 12 | Y | Y | N |
| 0181.2 | C38/73 | 30 | 30 | Y | Y | N |
| 0212.1 | C01/73 | 37 | 37 | Y | Y | N |
| 0221.1 | C07/73 | 12 | 12 | Y | Y | N |
| 0225.1 | C11/73 | 1 | 1 | Y | Y | N |
| 0246.1 | C31/73 | 4 | 4 | N | Y | N |
| 0250 | C29/73 | 15 | 15 | Y | Y | N |
| 0250 | C30/73 | 12 | 12 | Y | Y | Y |
| 0250.1 | C24/73 | 17 | 17 | Y | Y | Y |
| 0250.1 | C32/73 | 45 | 45 | Y | Y | Y |
| 0267.1 | C45/73 | ? | ? | N | Y | N |
| 0270.1 | C51/73 | 1 | 1 | Y | Y | Y |
| 0305.2 | C27/73 | 79 | 79 | Y | Y | Y |
| 0305.1 | C25/73 | 14 | 14 | N | N | N |
| 0305.3 | C26/73 | 26 | 26 | Y | Y | N |
| 0306.1 | C18/73 | 19 | 19 | Y | Y | N |
| 0307.1 | C19/73 | ? | ? | N | N | N |
| 0313.1 | C42/73 | 7 | 7 | Y | Y | N |
| 0313.2 | C43/73 | 1 | 1 | Y | Y | N |
| 0313.6 | C39/73 | 6 | 6 | Y | Y | N |
| 0313.7 | C40/73 | 5 | 5 | Y | Y | Y |
| 0401.1 | C49/73 | ? | ? | Y | Y | N |
| 0406 | | ? | ? | N | Y | N |
| 0406.1 | C63/73 | 10 | 10 | Y | Y | Y |
| 0406.1 | C55/73 | 17 | 17 | Y | Y | Y |
| 0406.1 | C61/73 | 14 | 14 | Y | Y | Y |
| 0406.1 | C62/73 | 1 | 1 | Y | Y | Y |
| 0467 | 198/73 | ? | ? | N | Y | N |
| 0467.1 | C59/73 | 19 | 19 | Y | Y | N |
| 0467.1 | C50/73 | 16 | 16 | Y | Y | N |
| 0467.2 | C60/37 | 16 | 16 | Y | Y | N |
| 0467.2 | | ? | ? | Y | Y | N |
| 0467.3 | C65/73 | 14 | 14 | Y | Y | Y |
| 0540.1 | C36/73 | 12 | 12 | Y | Y | N |
| 0550.1 | C46/73 | 6 | 6 | Y | Y | N |

*Table 7a: List of charcoal extracted for identification*

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential |
|---|---|---|---|---|---|---|
| 1005 | 1003 | 11 | 11 | Y | Y | Y |
| 1012 | 1002 | 19 | 19 | Y | Y | Y |
| 1012 | 1029 | 1 | 11 | Y | Y | Y |
| 1014 | R109 | 17 | 17 | Y | Y | N |
| 1020 | 1024 | 0 | 0 | Y | Y | Y |
| 1020 | 1021 | 13 | 13 | Y | Y | Y |
| 1020 | R112 | ? | ? | Y | Y | Y |
| 1021 | 1036 | 1 | 1 | N | N | N |
| 1021.1 | 1031 | 8 | 8 | Y | Y | Y |
| 1024 | 1030 | 2 | 2 | Y | Y | Y |
| 1027 | 1039 | 0 | 0 | Y | Y | Y |
| 1506 | 1018 | 9 | 9 | Y | Y | Y |
| 1521 | 1022 | 1 | 1 | Y | Y | Y |
| 1525/1574 | 1025 | 1 | 1 | Y | Y | Y |
| 1531 | 1006 | 0 | 0 | Y | Y | Y |
| 1535 | 1012 | 1 | 1 | Y | Y | Y |
| 1548 | 1005 | 0 | 0 | Y | Y | Y |
| 1548.1/2/4-7 | 1008 | 0 | 0 | Y | Y | N |
| 1549 | 1028 | 10 | 10 | Y | Y | Y |
| 1549 | 1034 | 22 | 22 | Y | Y | Y |
| 1549 | 1035 | 14 | 14 | Y | Y | Y |
| 1550 | 1019 | 1 | 1 | Y | Y | Y |
| 1550 | 1032 | 6 | 6 | Y | Y | Y |
| 1569.1-2 | 1013 | 40 | 40 | Y | Y | Y |
| 1571 | 1038 | 0 | 0 | Y | Y | Y |
| 1576 | 1033 | 3 | 3 | N | N | N |
| 1576 | 1009 | 1 | 1 | Y | Y | Y |
| 1598 | 1022 | 1 | 1 | Y | Y | Y |
| 2008 | 1004 | 1 | 1 | Y | Y | Y |
| 2016 | 1014 | 0 | 0 | Y | Y | Y |
| 2020 | 1015 | 4 | 4 | Y | Y | Y |
| 2020 | 1007 | 7 | 7 | Y | Y | Y |
| 2034 | 1020 | 0 | 0 | Y | Y | Y |
| 2034 | 1027 | 0 | 0 | Y | Y | Y |
| 2035 | 1016 | 0 | 0 | Y | Y | Y |
| 2036 | 1017 | 1 | 1 | Y | Y | Y |
| 2037 | 1023 | 1 | 1 | Y | Y | Y |
| B2 N interface | 1001 | 0 | 0 | Y | Y | Y |
| B-interface | 1040 | 1 | 1 | Y | Y | Y |
| Topsoil | 1041 | 1 | 1 | N | N | N |

*Table 7b 1977 samples extracted on-site for C14 and identification*

**Key:** Potential = some charcoal still identifiable (potential for final analysis still to be determined based on dating and stratigraphic information)

*Potential of the assemblage*

The report states that the overall pattern is similar to many other sites from a variety of periods. A notable feature of the site, nevertheless, is the high frequency of

Leguminosae, elm, yew and holly charcoal. Yew is more commonly associated with limestone sites and is not likely to have been common locally. The report, which is a broad summary, does not provide details of the species identification by context or phase. As there are some distinguishing features of the charcoal from this site, it would be useful for selective re-analysis to be carried out to provide more detail and to bring the report in line with a modern report format. Selection of samples will be need to take place, and will be based on artefactual dating, and stratigraphic information.

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located |
|---|---|---|---|---|---|
| 1020 | R103 | 0 | 0 | Y | Y |
| 1020 | R107 | 0 | 0 | Y | Y |
| 1369 | R106 | 0 | 0 | N | Y |
| 1548 | R103 | 0 | 0 | N | Y |
| 1548.1-2 | R104 | 0 | 0 | N | Y |
| 1548.1-2 | R101 | 0 | 0 | N | Y |
| 1548.1-2 | R102 | 0 | 0 | N | Y |
| 1617 | 1037 | 0 | 0 | Y | Y |
| N interface | R102 | 0 | 0 | N | Y |

*Table 8: List of samples selected for C14 analysis (1973)*

**Soil samples**

A total of 16 small soil samples are retained in archive (Table 9), mostly from the 1984 watching brief. No further work is recommended on these.

| Context | Sample | Sample volume (L) | Volume processed (L) | Material assessed | Material located | Potential |
|---|---|---|---|---|---|---|
| 0111 | | 1 | 0 | N | Y | Y? |
| 3001.1 | 1 | 0.2 | 0 | N | Y | N |
| 3001.2 | | 0.2 | 0 | N | Y | N |
| 3001.3 | | 0.15 | 0 | N | Y | N |
| 3001.4 | 4 | 0.2 | 0 | N | Y | N |
| 3001.5 | | 0.1 | 0 | N | Y | N |
| 3001.5 | 5 | 0.2 | 0 | N | Y | N |
| 3001.6 | 6 | 0.2 | 0 | N | Y | N |
| 3001.7 | 7 | 0.3 | 0 | N | Y | N |
| 3002.1 | | 0.2 | 0 | N | Y | N |
| 3002.2 | | 0.1 | 0 | N | Y | N |
| 3002.2 | 2 | 0.1 | 0 | N | Y | N |
| 3002.3 | | 0.2 | 0 | N | Y | N |
| 3002.5 | 5 | 0.2 | 0 | N | Y | N |
| 3003 | | 0.2 | 0 | N | Y | N |
| 3004 | | 0.15 | 0 | N | Y | N |

*Table 9: 1984 watching brief soil samples*

2.3.14 **Radiocarbon dating**

One sample has been previously dated (230BC +/-100; Birm453), and should now be rerun through the current Oxcal programme.

2.3.15 **General (including archive)**

Report draft (digital file)

There is a draft of an overall structure report (word processed), which covers: structures, flint, stone objects, Bronze Age pottery, charcoal and animal bones.

Very little of the project archive is held digitally and none of the original site data was recorded digitally given the vintage of the excavation; however it is envisaged that any digital site archive will be sent to ADS, while the primary archive will all be deposited with the County Museum at Hartlebury.

# 3. Project design for analysis and dissemination (Stage 3)

The following presents an updated project design for the undertaking of a programme of analysis with reporting, and dissemination on the major later prehistoric archive from the Blackstone site. Stage 3 awaits possible commissioning and would comprise the assessment of the potential of the archive, and the production of a UPD.

Provision is also included for:

a) the delivery of a lecture to the Kidderminster and District Archaeology and History Society, though this still remains to be arranged in a following year when the lecture programme is organised.

b) The uploading of a web summary of the site on the County Council website.

## 3.1 Aims and objectives of Stage 3

### 3.1.1 Research aims

In the absence of sites of comparable date in north Worcestershire the publication of the Blackstone site will represent a start in characterising the activity of this period in an area for which little evidence is available. This will reveal the socio-economic contacts of at least one site through its trading system, and will go some way towards enabling the definition of Iron Age settlement in this part of Worcestershire. This will also assist with understanding of any future sites, as it will contribute to providing a context for this period in this part of the county, and especially for sites situated on the gravel/aggregate terrain. The dissemination of the results of the Blackstone excavation will, therefore, contribute significantly towards characterising differing elements in the past settlement landscape as encouraged by the research agenda in the *Regional Research Framework* (Hurst 2007).

The Blackstone site lies in the area where many commentators have often placed the interface between two tribal area (ie Dobunni to the south and Cornovii to the north) and so another aim would be to see if there is any reason based on the material evidence to assign the site to one area or another, and whether it conforms or contrasts with other sites in south Worcestershire which possess a high degree of cultural homogeneity.

The Blackstone enclosure is very distinctive and was formerly regarded as a military Roman site – it would be useful to establish whether this misidentification might be more widespread within this region, and to assess whether the Blackstone enclosure plan is therefore to found elsewhere, and may mark a specific type of site. It is also of particular interest whether this is really an isolated example of settlement in this region, or whether it just happens to be a more visible type of settlement given its location on a gravel terrace – investigation of the air photo evidence especially to the immediate south of the site in the same terrace locale will be of significance for examining this question. Comparison with Beckford will be carried out as the latter is characteristic of Iron Age settlement in south Worcestershire which is a very different region in terms of its landscape and geology.

Pursuant on these research aims the principal purpose of Stage 3 analysis and reporting will be to realise the full potential of the Blackstone archive for research and/or management, before preparing it for museum deposition, by creating an integrated final report on the 1970s excavations, including illustration.

3.1.2 **Objectives**

OB1) To revise, where necessary, the currently drafted specialist reports to ensure that comparison can be made with other sites in the wider region in order to facilitate a modern characterisation of the site;

OB2) To determine as far as possible the cultural affinities of the site based on its artefacts to investigate whether this informs the debate about the Iron Age tribal attribution of this area;

OB3) To assess whether the plan-form of the enclosure is found elsewhere in the region, and whether other aerial photographic evidence can contribute to providing a wider context for the site;

OB4) To produce a coherent narrative of the site history for dissemination given the rarity of sites of this date in north Worcestershire at large;

OB5) To implement additional dissemination of results from Stage 3 to an appropriate audience in addition to the final report, through a combination of media (ie web delivery and public lecture).

OB6) To investigate whether in principle it may be possible to place an interpretation panel in an adjacent picnic area.

## 3.2 Analysis and dissemination (Stage 3)

The project is currently designed as having an Analysis and Reporting/dissemination stage (Stage 3). The Reporting/dissemination is intended initially to deliver an academic report leading to an appropriate academic publication, most likely in the County Journal (*Transactions of the Worcestershire Archaeological Society*). And, if the programming allows, it may be possible to simultaneously provide data and artefacts for the current Outreach initiative of the Worcestershire Aggregates Collections ALSF-funded Project (PNUM 4747) running till February 2008.

As part of Stage 3 other dissemination is worthy of consideration. Though the site itself is on private land there is a riverside path along the river below the site and a designated Blackstone Picnic Place which is a Worcestershire County Council managed countryside site. It is proposed to make enquiries about whether an interpretation panel could be advantageously sited at this location. A site visit and discussions would be necessary before any such plan could be implemented.

It is also proposed to present a lecture to the Kidderminster and District Archaeology and History Society on the final results of project.

## 3.3 Potential for future stages/projects

No formal further stages of work and/or separate project/s are currently proposed following on from the completion of Stage 3. However, it is proposed here to investigate whether in principle it may be possible to place an interpretation panel in an adjacent picnic area.

# 4. Methods

The overall archive on completion will be not include much primary digital data owing to the vintage of the excavation; any digital archive will be submitted to ADS.

## 4.1 Stratigraphic analysis

Much of the basic stratigraphic analysis that would be possible on this site (ie spatial patterning) has already been carried out, and the report written up.

It is, therefore, intended as part of this stage to only carry out a limited amount of further stratigraphic work. This will comprise holding a meeting with the principal original excavators (Alan Hunt and Peter Davenport) where some crucial parts of the site interpretation can be examined and checked against the up-to-date finds data. As a result of this it is expected that there may be a need for some limited redrafting of some select sections of the existing stratigraphic report. Further editing and checking will also be needed.

More specifically, a general location plan, probably based on plotting the original aerial photo onto the OS grid, would also be needed (an air photo search will also be requested of the EH air photo library at Swindon). Reductions of neat copies of site plans (archive plans) have been done for individual trenches but have not been fitted into a figure scheme for publication ie the selection of plans and their amalgamation on the page into an effective series of illustrations showing the site has not yet been tackled. Details of the interpretation of features as parts of either buildings or pit groups have also not been incorporated into the plan illustrations, and the interpreted feature groups have not been labelled (grid would need including). In addition none of the sections have yet been illustrated (their location on plan figs is also needed).

Checking of whether 1972 context renumbering has been fully implemented across the whole archive is still needed prior to instigating any of the recommended finds analysis.

An updated discussion of the site context is also required.

Further work would, therefore, be required to realise the potential of the site as a prime example of an Iron Age enclosure so that its dissemination could be achieved.

*Database/listing*

The creation of a basic database (Microsoft Access) for select data is intended simply as a convenient listing of essential data rather a comprehensive database record for the entire site, and would definitely facilitate the carrying out of the final analysis and checking of this site, as it will only then be possible to amalgamate and make the best use of all the diverse and new sources of finds information linked with the existing stratigraphic interpretation. This would incorporate all the data already created during the assessment (mainly Excel, though WHEAS assessment records are all logged on our standard Access database) and so it would be a case of amalgamating mainly existing data and using it therefore to the best advantage rather than doing much additional data creation/logging work – in terms of stratigraphic data this would accordingly be limited to some of the principle features and feature groups only, which would facilitate the review of some the more critical parts of the stratigraphic sequence (see above).

## 4.2 Prehistoric pottery

*Analysis*

The original details about the pottery and briquetage recorded 28 years ago have now been entered into two simple Excel spreadsheets which are included as part of this report (Data Pot; Data Briq). Re-examination of the material revealed that there are eight new fields of record which need to be added to the pottery dataset to bring it into line with late 20th century standards as recommended by the Prehistoric

Ceramics Research Group's guidelines for analysis and reporting (PCRG 1995, 1997). These include:

- ·decoration method, design and motif(s)
- ·surface treatment and position
- ·vessel wall thickness code
- ·diameter of rim/base
- ·percentage of rim/base present
- ·firing condition
- ·evidence of use and position
- ·general comments

Only two new fields need to be added to the briquetage dataset:

- wall thickness using briquetage division codes (Morris 2001) and;
- evidence of use such as the bleaching white of surfaces from contact with the chlorine released by the heating of saltwater and abrasion on the interior surface from the scraping out of salt crystals.

In addition, it is recommended that the fabric codes used in these datasets should be changed to the now well-established Worcestershire Fabric-Type Series (www.Worcestershireceramics.org) and that a correlation table be prepared for the Blackstone archive to link the 1979 report to the 2007-8 report. The original 1979 Blackstone pottery vessel form type series needs to be correlated to the Beckford vessel form series (in prep.) in order for ease of comparison of types and frequencies by ceramic phase at the report writing stage.

Featured Sherd Records should be made for each of the rims and decorated sherds, and a selection of the base sherd types, for use during the writing of the text report as this system works well when investigating the subtle details of ceramic phasing by providing a visual association of coded material for better understanding of the nature of the contextual data. This can be achieved by simply pasting photocopies of the already illustrated material, and adding new 1:1 sketches of any rims or decorated pieces which had not been selected for formal illustration.

*Reporting (text, tables and figures)*

A 19-page typed report on the Iron Age pottery and briquetage exists in the archive. This report needs to be digitised, developed and considerably improved based on all the checked and newly recorded data (Task 3.2), and in the light of nearly three decades of increased information about Iron Age pottery and briquetage in the region, and our current understanding of the nature of depositional practices, vessel sizes and their uses, and trade and exchange of pots and salt containers in Britain.

If possible, ceramic phases should be established for the pottery assemblage or at least the assemblage should be assigned to the appropriate Beckford (in prep.) and Conderton Camp (Morris 2005) ceramic phase(s) and correlated to the site sequence once established. The distribution of different vessel forms, evidence of use on these vessels and fabrics should be examined and presented in figures if suitable, to investigate any spatial variation amongst the assemblage of pottery and briquetage across the site. In particular it is quite noticeable how many features do not contain pieces of briquetage, and yet there is considerable material present. There may be some significance in this pattern should it prove to be spatially or chronologically distinctive.

It will be necessary to create tables or summaries of the recorded information through correlation of the data gathered, including quantification of fabrics (count, weight, percentage of Iron Age pottery assemblage by fabric; count, weight of briquetage assemblage); quantification of rim/vessel form types; correlation of fabrics to forms; correlation of surface treatments to fabric, to forms, to evidence of use; correlation of evidence of use to fabrics, to forms; and determination of the frequency of vessel size ranges (in 10cm intervals) by form type, by evidence of use. The quantification by percentage of fabrics should also be presented visually in a pie chart and the frequency of vessel sizes and associated evidence of use by histogram. The typed table in the 1979 report which presents the original sample details and thin section code (doctoral research series) for each of the sherds selected for petrological analysis needs to be digitised and correlated to the codes now assigned to the thin section glass slides currently archived in the University of Southampton, School of Humanities (Archaeology) Microscope Laboratory series for Iron Age pottery (I-series) (Task 3.4).

A Catalogue of Illustrated Iron Age Pottery will need to be prepared for publication and this should include: form type name; form type code; fabric type code; decoration code, if necessary; surface treatment type and position, if necessary; percentage of rim/base present as appropriate; evidence of use, if necessary; Pottery Record Number; and full context information including type of feature, feature number and context/layer number accordingly.

A report needs to be prepared about the fabric, form, and decoration of the Early Bronze Age Collared Urn-type vessel in its regional context. Information about the nature of this vessel at recovery from Feature 517/layer 1 and whether it is derived from funerary or settlement activity at the Blackstone location will affect this report. The various illustrations of sherds from this pot need to be re-assembled and/or re-drawn once all the pieces have been examined in detail and any sherds joined where possible.

*Additional archival preparation*

Each of the entries in the new version of the 1979 data has been assigned a Pottery or Briquetage Record Number accordingly (PRN; BRN). These, and any new ones assigned during full analysis, should be written onto fresh, self-seal, write-on panel plastic bags containing the specific material for long-term storage and direct access to each specific item.

The Early Bronze Age vessel sherds need to be securely cushioned in acid-free tissue paper in a labelled plastic box for good curation due to the rarity of these vessels in the county.

## 4.3 Ceramic objects

A short catalogue should be produced. The near-complete loomweight should drawn and/or photographed.

## 4.4 Fired clay

The thin sections should be extracted from the Southampton archive and examined and a short report written.

## 4.5 Iron objects

A specialist comment on select items of the assemblage is intended for inclusion in addition to the present assessment reporting.

In the continuing absence of the radiographs the available drawings should be scanned, tidied up and laid out.

### 4.6 Stone objects

A catalogue description of the whetstone, including parallels, to be created, and an illustration and/or photograph. Publication of the large (missing) quern will be as a photograph.

### 4.7 Flint

The original flint report referenced in the assessment above has been word-processed, though further revision is recommended in accordance with the results of the assessment. The preparation of a full catalogue on an Excel list to match the criteria at Lighthouse Farm. The availability of the Lightmarsh Farm lithics for study would inform this process so that, for instance, body-colour definition and similarity of cortex can be uniformly recorded.

Consideration will also be given to the source of lithic material.

The flint still requires marking and this will be carried out by volunteers at the WHEAS office.

### 4.8 Environmental remains

*Plant remains*

The species results in the original report will be compiled into species tables which are grouped by phase and context.

*Charcoal*

The cell structure of charcoal from selected samples will be examined in three planes (cross-section, radial, tangential) under a high power microscope and identifications carried out using reference texts (for example, Schweingruber 1978, Brazier and Franklin 1961) and reference slides prepared from modern wood samples. It may be necessary to make fresh breaks for some of this material. The species identifications will be presented in a table, grouped by phase and context.

*Animal bone*

Short existing report will need typing up for inclusion.

## 5. Task list for analysis and dissemination (Stage 3)

See Table 9 below for linking of tasks with assessment objectives.

See Table 10 for key to abbreviated names and summary of roles.

**Task 1: Management**

Overall project co-ordination, editing, tracking, English Heritage liaison and financial management. Request air photo an air photo search from the EH air photo library at Swindon. Make initial enquiry about the possibility of an interpretation panel at a nearby picnic site.

D Hurst 5 days

**Task 2a: Stratigraphic analysis**

The broad stratigraphic report seems sound but there are crucial junctures in the sequencing of the defences which should be revisited both in terms of testing the current interpretation and of reassessing in the light of fresh dating from ceramics in particular, given the significant advances in ceramic studies in the region in the last 30 years. It is proposed that this would be done in close consultation with the original excavator (Alan Hunt) and with Peter Davenport (original post-excavation site analyst) by holding a seminar session probably in Worcester. Subsequent to this seminar there may be a need for some redrafting of the report by Peter Davenport, and the updating of the site context by Derek Hurst.

A computerised finds/environmental listing of any data being created at this stage would facilitate this process by facilitating the rapid contextualisation of any part of the site where stratigraphic robustness was being tested (principally the sequencing of the defences). As the focus of interest is likely to develop during the seminar it would be important to be able to draw on all the relevant data as quickly as possible so that any discussion can be fully informed.

Run existing radiocarbon date through latest Oxcal programme

*Site seminar/discussion (including preparation)*

A Hunt 1.5 days

P Davenport 1.5 days

D Hurst 1.5 days

*Text redrafting*

A Hunt 1 day

P Davenport 2 days

D Hurst 1 days (updated site context)

**Task 2b: Stratigraphic analysis (illustration)**

The derived site plans which have complete site coverage need to be scanned so that they can be taken into Illustration software and amended to include site grid, section lines, and interpreted feature groups including buildings, and then arranged for publication. Sections of the defences require illustration.

A selection of photos should be made to complement the site plans and sections.

Illustrator 13 days

D Hurst 2 day

**Task 3: Prehistoric pottery**

1. Lay out all of the pottery and briquetage by context in a spatial pattern similar to that of the site plan, if possible, and determine if any sherds join across/between contexts/features.

2. Double-check, improve or record new data where necessary for each field of entry by examination of every piece of pottery and briquetage now in the collection and against the drawings where present; this includes the thin section codes where samples were removed for analysis. In particular double-check the fabric type of each piece of briquetage.

3. Ensure that all original pottery drawings are suitable for publication and a true reflection of the actual sherd/s, and that the drawing number is correctly recorded.

4. Digitise 1979 report and table of thin sectioned samples. Correlate research thesis samples series to University I-series of codes.

5. Edit, improve and add to where relevant the briquetage and pottery report. (It may be appropriate to separate these sections into two reports, and this should be considered in discussion with the Project Manager.)

6. Using pivot tables on Excel, create summaries and correlated data as required to assist in the writing of the updated report. Re-style this information into tables suitable for publication.

7. Write the updated report text.

8. Prepare the Catalogue of Illustrated Prehistoric Pottery and Briquetage.

9. Liaise with artefacts illustrator about the four drawings of the Early Bronze Age Collared Urn-type vessel which require consolidation.

10. Liaise with artefacts illustrator about the 28 new drawings required of Iron Age pottery.

11. With the Roman pottery specialist and the Project Manager, establish a format style of tables and text which makes it possible to link across smoothly from the final Iron Age to first Roman period descriptive text, if that is chronologically suitable. If there is a gap in the ceramic sequence, then this task is not necessary.

12. Respond to editorial advice from the Project Manager about the submitted Draft Report for final delivery of text, tables, figures and archive records.

Dr E Morris (pottery specialist) 13.5 days

Illustrator (28 Iron Age potsherds, including rims and bases, in addition to the 61 original drawings already available - only one of these is decorated with a simple linear-tooled, geometric design). 3.75 days

**Task 4: Stone**

In the circumstances, very little further work is required, although the original report and catalogue of the stone objects need radical updating. A final catalogue and short text can be produced from these notes and from the updated list supplied with them. Whetstone (ST6) from an Iron Age context is worth illustrating. In the unlikely event of the missing querns turning up, 1 day might be needed to produce a final report but otherwise 0.5 day's work is suggested.

*Availability of specialist*

The availability of any specialist to carry out this further work is limited. The situation with regard to stone specialists has been at crisis point for some time now, with a chronic shortage of people able to take on fresh projects.

Fiona Roe 0.5 day

Illustrating Whetstone (ST6) 0.25 day

**Task 5: Flint**

1. Rebag all lithics and prepare a single lithics Small-Finds catalogue.

2. Mark and label all lithics as appropriate.

3. Preparation of a full catalogue, and a tabulated description of the 6 flakes present from B77 (1027).

4. Prepare appropriate word-processed tabular summaries and discussion.

The tasks 1, 3 and 4, could be undertaken by PJW. Task 2 might best be done as a part of preparation of Archive for Deposition, and is intended to be carried out at the WHEAS office by volunteers, unless otherwise arranged.

Peter Woodward (PW) Tasks 5.1 and 5.3: 3 days

Peter Woodward Task 5.4: 1.5 days

(Archive specification and Correspondence (PW)): 0.5 day

Collection and despatch of the loan of a reference collection (to c/o Dorset County Museum) of material from Lighthouse Farm (the relevant museum to loan to c/o Dorset County Museum). Supervision of marking of flint by volunteers DW 0.5 day

Illustrator 1 day

**Task 6: Other finds (metal work, ceramic objects)**

Sorting out parallel for rectangular loom weight plus illustration time for that and the other fragment. Completing ironwork report/checking illustrations LG 1.5 days

E Morris (fired clay thin sections) 0.5 day

Illustrator 2 days

**Task 7: Environmental remains**

*Plant remains*

Summarising of the Keepax and Paradine (1977) report with comment EP 2.25 days

*Charcoal*

Selection of samples and liaison with Project leader (EP) EP 1 day

Updating of Keepax (1979) report and re-analysis AC 4.5 days

*Animal Bone*

Typing and checking of animal bone report EP 0.25 day

**Task 8: Reporting**

The discussion of the regional context needs to be updated to take into account the research over the last 30 years including major sites such as Conderton Camp and Beckford.

Overall editing/checking/liaison

P Davenport 1.5 days

A Hunt 1.5 days

D Hurst 2 days

Approximately 50 Pages

**Task 9: Additional dissemination**

Additional dissemination will also involve the presentation of a talk to the Kidderminster Society

D Hurst 1 day

And arrangement of content for the County website:

D Hurst 1 day

Justin Hughes 0.5 day

**Task 10: Museum deposition/project archiving/submission of report to EH**

Checking boxes and arranging for delivery

Alan Jacobs 0.5 day

Arrange for digital data to be submitted to ADS and submission of report to EH

D Hurst 2 days

# 6. Resources and programme

## 6.1 Personnel

The Project Manager is Derek Hurst (DH) who will lead the project with the support of other staff of Worcestershire Historic Environment and Archaeology Service including Elizabeth Pearson (EP; Environmental Officer). The original site director, Alan Hunt, will have input to the project from the outset, as well as Peter Davenport who was originally responsible for stratigraphic analysis and draft reporting; and further contributors may be identified during Stage 2.

*External specialists*

Dr Elaine L Morris (Centre for Applied Archaeological Analyses) - Ceramic specialist

Fiona Roe. Worked stone specialist

Peter Woodward. Flint specialist

*Internal staff*

See Table 10 for key to abbreviated names

6.2 **Programme**

| Task no | objectives | Tasks | By | Days |
|---|---|---|---|---|
| 1 | 1-5 | Project management | DH | 5 |
| 2 | 1 | Stratigraphic consultation and reporting | AH<br>PD<br>DH<br>Illustrator | 2.5<br>3.5<br>4.5<br>13 |
| 3 | 1 | Prehistoric pottery analysis and reporting | EM<br>Illustrator | 13.5<br>3.75 |
| 4 | 1 | Stone analysis and reporting | FR<br>Illustrator | 0.5<br>0.25 |
| 5 | 1, 2 | Flint analysis and reporting<br><br>Marking flint | PW<br>Illustrator<br>DW<br>volunteers | 5<br>1<br>0.5<br>5 |
| 6 | 1 | Other finds analysis and reporting<br>Thin section reporting | LG<br>EM<br>Illustrator | 1.5<br>0.5<br>2 |
| 7 | 1 | Environmental reporting | EP<br>AC | 3.5<br>4.5 |
| 8 | 1 | Regional context; liaison and overall editing of report | AH<br>PD<br>DH | 1.5<br>1.5<br>2 |
| 9 | 5 | Web dissemination and lecture | DH<br>JH | 2<br>0.5 |
| 10 | 4 | Museum deposition/ archiving/ submission of report to EH | AJ<br>DH | 0.5<br>2 |

AC Alan Clapham; AH, Alan Hunt; PD, Peter Davenport; LG, Laura Griffin (WHEAS); JH Justin Hughes; DH, Derek Hurst (WHEAS); AJ, Alan Jacobs: EM Elaine Morris, EAP, Elizabeth Pearson (WHEAS); FR, Fiona Roe: DW, Dennis Williams (WHEAS); PW, Peter Woodward

*Table 10 Summary of key tasks in Assessment*

*Publication synopsis (Worcestershire Archaeological Soc Transactions)*

| **Content** | **text pages** | **figure pages** |
|---|---|---|
| Introduction | 2 | |
| Site narrative | 8 | 12 (ills) |
| | | 9 (photos) |
| Finds | | |
| Pottery | 6 | 1 |
| Other finds | 2 | 3 |
| Environmental | 3 | - |
| Conclusions | 2 | - |
| Biblio | 2 | |
| **Totals** | **25** | **25** |

6.2.1 **Funding**

Funding for the undertaking of this project is requested from English Heritage through the Aggregates Levy Sustainability Fund Programme and as presented in the breakdowns provided in Appendix 3.

The overall cost for completion of Stage 3 Tasks is: **£18,418.73**

6.2.2 **Project programme**

The identified key tasks for the project are tabulated in Table 6. A Gantt chart for the proposed progress is presented as Appendix 2. The project programme is planned to be completed by February 2008.

| | |
|---|---|
| Proposed start date for Stage 3 | 17 October 2007 |
| Proposed completion date Stage 3 | 15 February 2008 |

The proposed tasks will be undertaken within financial year 2007/8 and thus will be completed within a future ALSF round, if available.

6.2.3 **Quality**

The Service is part of Worcestershire County Council and is subject to the Council's policies, safeguards, practices and audit procedures. The Service is registered as an archaeological organisation with the Institute of Field Archaeologists, and as such is bound to the IFA's Code of Conduct and bylaws.

The Service is covered by public and employer's liability insurance (with a limit of £40 million), and professional indemnity insurance (with a limit of £2 million). Insurance is with AIG Europe (UK) Ltd (Policy Number 21005095, expires 29 September 2007).

Malcolm Atkin, County Archaeologist, will monitor progress of the project on a monthly basis. Monitoring meetings will be held with English Heritage as required to review the progress of the projects against the timescale presented in the Gantt chart (Appendix 4).

6.2.4 **Health and safety**

The Service is covered by the conditions and requirements of the County Council's health and safety policies and procedures (as amended).

- Health and Safety, corporate health and safety policy 1998.
- Corporate Services safety policy (Cultural Services) 2000.

The County Council also produces supplementary guidance (for example).

- Guide to general risk assessment, no date.
- Display screen equipment, information for users, 1992.
- Manual handling in libraries, no date

The Service has issued Manual of Service practice: safe working practice (1996 as amended, County Archaeological Service internal report, 461) which are guidelines drawn from its risk assessments of common situations. The following guidelines are relevant to this project, and all staff will be aware of them.

- Travelling.
- Lone working.

All these documents may be viewed at the Service's offices, and may be forwarded on request.

### 6.2.5 Copyright

Copyright of all written, graphic, photographic, and digital records remains that of Worcestershire County Council Historic Environment & Archaeology Service unless otherwise agreed with English Heritage. All material copied from other sources will be fully acknowledged and relevant copyright conditions observed.

## 7. Acknowledgements

This project would not have been possible without the support of Alan Hunt in particular, and the helpful staff at the Centre for Archaeology, Portsmouth, and Dr Helen Keeley of English Heritage.

## 8. Bibliography

Barfield, L, 2002 *Later Lithics in the West Midlands Counties*, http://www.iaa.bham.ac.uk/research/fieldwork_research_themes/projects/wmrrfa/docs/Barfield%20txt.doc, accessed July 2007

Beijerinck, W, 1947 *Zadenatlas der Nederlandsche Flora*, Wagoningen

Brazier, J D, and Franklin, G L, 1961 Identification of hardwoods: a microscope key, Dept of Scientific and industrial research, *Forest Products Research Bulletin*, **46**, Her Majesties Stationary Office, London

Clapham, A R, Tutin, T G, and Warburg, E F 1962 *Flora of the British Isles*, 2nd edition, Cambridge University press

Dinn, J, 1992 *The Blackstone to Astley Aqueduct: Salvage Recording*, Archaeology Section Hereford and Worcester County Council, internal rep **WR1221**

English Heritage, 1991 *Management of archaeological projects* (digital version 1998)

English Heritage, 2004 *River and estuary of the Severn – proposals for grant-funded historic environment research*

Eop98, English Heritage, 1998 *Exploring our Past- strategies for the archaeology of England*

Haselgrove, C, Armit, I, Champion, T, Creighton, J, Gwilt, A, Hill, J D, Hunter, F, and Woodward, A, 2001 *Understanding the British Iron Age: an agenda for action*

Hencken, T, 1939 The excavation of the Iron Age camp on Bredon Hill, Archaeol J, 95, 1-111

Hurst, J D, 1992 Friar Street, ceramic building materials, in S G Woodiwiss (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*, CBA Res Rep, **81**, 155-7

Hurst, J D, 2000 *The south Worcestershire hoards*, Worcestershire County Archaeological Service internal rep, **812**

Hurst, D, 2002 *Middle Bronze Age to late Iron Age Worcestershire*. http://www.iaa.bham.ac.uk/research/fieldwork_research_themes/projects/wmrrfa/seminar2/Derek%20Hurst.doc, accessed 4 August 2006

Hurst, D, 2007 *Middle Bronze Age to Iron Age: a research assessment overview and agenda*, unpublished typescript chapter of rrf

Hurst, D, forthcoming Beckford: ceramic objects, in J Wills, *Beckford*

Hurst, J D, and Pearson, E A, 1996 An Iron Age site at Madeley Heath, Belbroughton and other sites on the Fairfield to Frankley Green gas pipeline, *Trans Worcestershire Archaeol Soc*, **3**, 127-34

Hurst, D, and Pearson, E, 2007 *Iron Age settlement at Blackstone, Worcestershire: audit of site archive and project design*, Worcestershire Archaeology Service unpublished internal report **1535**

Hurst, J D, and Rees, H, 1992 Pottery fabrics; a multi-period series for the County of Hereford and Worcester, in Woodiwiss, S G (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*, CBA Res Rep, **81**, 200-9

Jackson, R. Bevan, L. Hurst, D. de Rouffignac, C, 1994 *Salvage Recording on the Trimpley to Blackstone Aqueduct, Kidderminster Foreign*, Archaeology Section Hereford and Worcester County Council, internal rep **WR1241**

Jackson, R, and Dalwood, H, 2006: *An archaeological resource assessment and research agenda for aggregates the producing landscapes of Worcestershire*, Worcestershire Historic Environment and Archaeology Service internal rep **1477** (in progress)

Jacobs, A, and Jackson, R, 2006 *Unlocking the past: Collections and HER enhancement: Assessment and Updated Project Design (PNUM4776)*, Worcestershire Archaeology Service (P2898)

Jones, L, and Evans, C J, 2006 The excavation of an iron Age and Romano-British site at Stoke Lane, Wychbold, *Trans Worcestershire Archaeol Soc*, **20**, 11-35

Keepax, C, 1977 Contamination of archaeological deposits by seeds of modern origin with particular reference to the use of flotation machines, *J Archaeol Sci*, 4, 221-229

Keepax, C, A, 1979 *Charcoal*, unpublished typescript

Keepax, C A and Paradine, P, 1977 *The use of a flotation machine at Blackstone, Worcestershire, and the seeds obtained*, English Heritage, Ancient Monuments Laboratory report, 2174

Mitchell, G H, Pocock, R W & Taylor, J H, 1961 *Geology of the Country around Droitwich, Abberley and Kidderminster, Explanation of Sheet 182*, Memoir of the Geological survey of Great Britain, London HMSO

Morris, E L, 2001 Salt production and distribution, in T Lane, and E L Morris (eds), *A millennium of saltmaking: prehistoric and Romano-British salt production in the Fenland*, Lincolnshire Archaeol and Heritage Rep, **4**, 384-404. Heritage Trust of Lincolnshire: Sleaford

Morris, E L, 2005 Pottery and briquetage, in N Thomas, *Conderton Camp, Worcestershire: a small middle Iron Age hillfort on Bredon Hill*, CBA Res Rep, 143, 117-47. York: Council for British Archaeology

PCRG 1995, 1997, *General Policies and Guidelines for the Analysis and Publication of Later Prehistoric Pottery*. (Oxford: Prehistoric Ceramics Research Group Occ Papers 1 & 2)

Roe, F, 1999 The Worked Stone, in A Mudd, R J Williams & A Lupton, *Excavations alongside Roman Ermin Street, Gloucestershire and Wiltshire: The archaeology of the A419/A417 Swindon to Gloucester Road Scheme*, Oxford Archaeological Unit, 414-421

Roe, F, in prep Worked stone, in J Wills, *Excavations at Beckford 1975 – 1979*

Schweingruber, F H, 1978 *Microscopic wood anatomy: structural variability of stems and twigs in recent and subfossil woods from Central Europe*, Swiss Federal Institute of Forestry Research

Stace, C, 2001 *New Flora of the British Isles*, Cambridge University Press, 2 edn

Thomas, N, 2005 *Conderton Camp, Worcestershire: a small middle Iron Age hillfort on Bredon Hill*, CBA Res Rep, **143**

Wills, J (ed), forthcoming *Beckford*, CBA Res Rep

## 9. Abbreviations

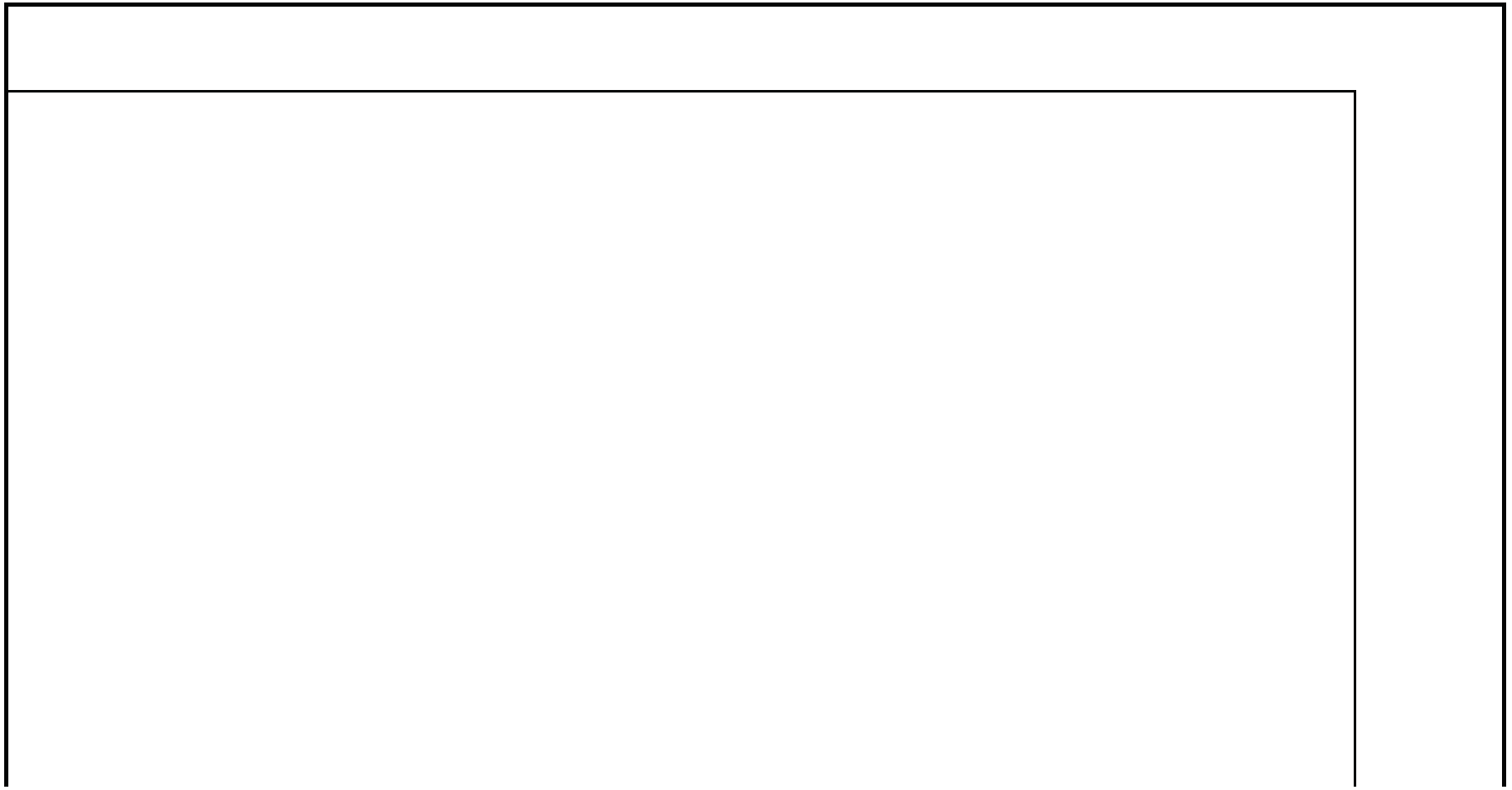
WSM Numbers prefixed with 'WSM' are the primary reference numbers used by the Worcestershire County Sites and Monuments Record.


*Figure 1 Blackstone Iron Age site, Worcestershire (north part of site): working site plan*


*Figure 2 Blackstone Iron Age site, Worcestershire (south part of site): working site plan*

# Appendix 1 Cost breakdown (Ex VAT)

**Proposed Stage 3 (programme period September 2007 to mid February 2008)**

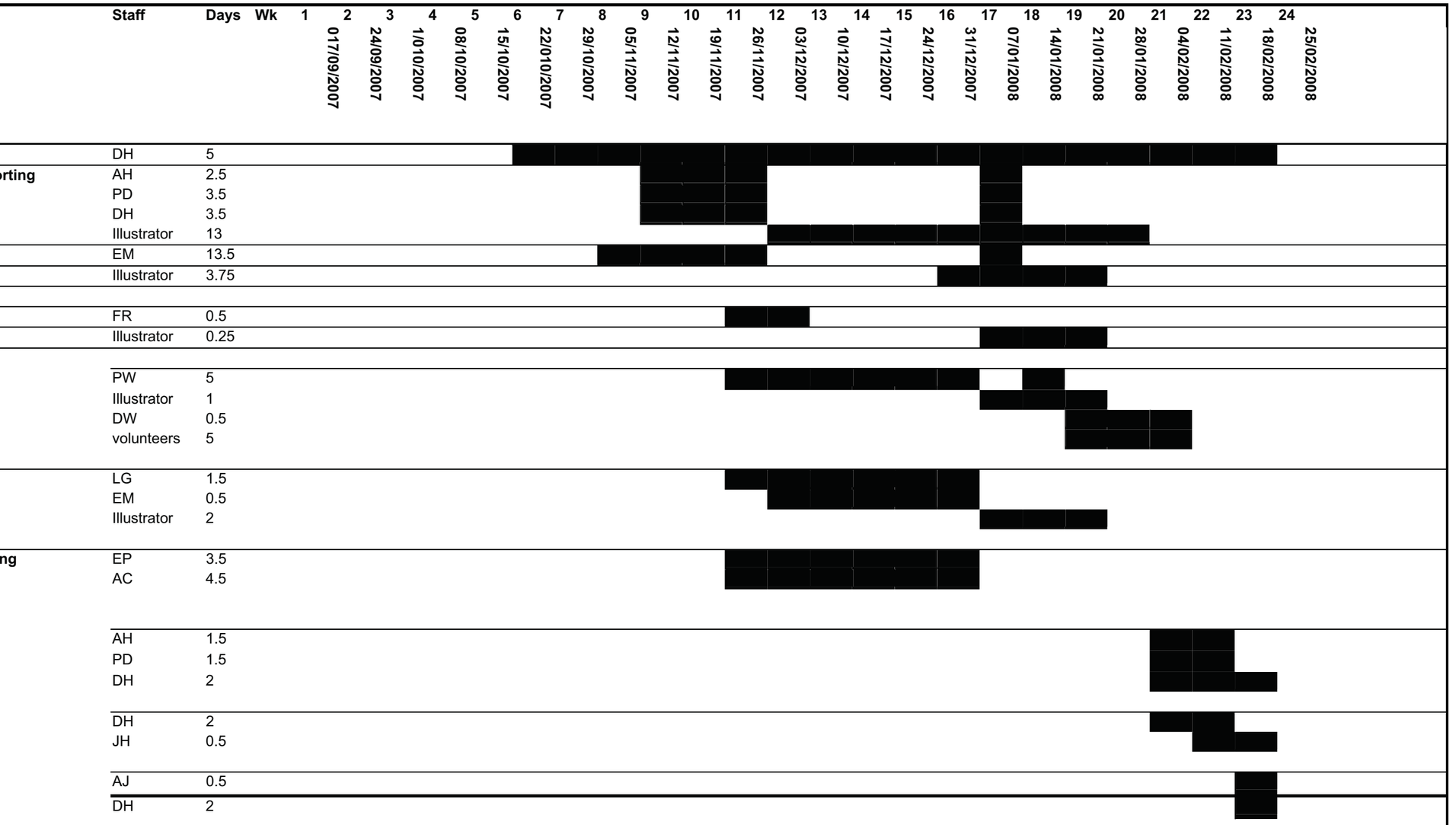


| | |
|---|---|
| | |
| | |

**WHEAS-21 November 2007**

## Appendix 2 Gantt for Stage 3 (Analysis and dissemination)

| Task | Task name | Staff | Days |
|---|---|---|---|
| 1.0 | **Project Management** | DH | 5 |
| 2.0 | **Stratigraphic consultation and reporting** | AH | 2.5 |
| | | PD | 3.5 |
| | | DH | 3.5 |
| | | Illustrator | 13 |
| 3.0 | **Prehistoric pottery** | EM | 13.5 |
| | | Illustrator | 3.75 |
| 4.0 | **Stone analysis and reporting** | FR | 0.5 |
| | | Illustrator | 0.25 |
| 5.0 | **Flint analysis and reporting** | PW | 5 |
| | | Illustrator | 1 |
| | Marking flint | DW | 0.5 |
| | | volunteers | 5 |
| 6.0 | **Other finds analysis and reporting** | LG | 1.5 |
| | Thin section reporting | EM | 0.5 |
| | | Illustrator | 2 |
| 7.0 | **Environmental analysis and reporting** | EP | 3.5 |
| | | AC | 4.5 |
| 8.0 | **Liaison and overall editing** | AH | 1.5 |
| | | PD | 1.5 |
| | | DH | 2 |
| 9.0 | **Web dissemination and lecture** | DH | 2 |
| | | JH | 0.5 |
| 10.0 | **Museum deposition** | AJ | 0.5 |
| | **Archiving / report submission** | DH | 2 |




AC Alan Clapham; AH, Alan Hunt; PD, Peter Davenport; LG, Laura Griffin (WHEAS); JH Justin Hughes; DH, Derek Hurst (WHEAS); AJ, Alan Jacobs: EM Elaine Morris, EAP, Elizabeth Pearson (WHEAS); FR, Fiona Roe: DW, Dennis Williams (WHEAS); PW, Peter Woodward