ARCHAEOLOGICAL INVESTIGATIONS AT SPRING HILL FARM, EVESHAM RD, LOWER MOOR, FLADBURY, WORCESTERSHIRE

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31 January 2011

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Project 3373
Report 1808
WSM 40837

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Contents

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Part 1 Project summary

Archaeological investigations were undertaken at Spring Hill Farm, Evesham Road, Lower Moor, Fladbury, Worcestershire (NGR SO 9887 4703). They were carried out on behalf of Spring Hill Farms (Pershore) Ltd, who intend to develop the site with a glasshouse, lagoon, access track and associated works, for which a planning application was submitted. The project aimed to record any archaeological deposits within the area of the lagoon, and to carry out a watching brief on all groundworks within the area of the archaeological exclusion zone, which included works within a Scheduled Ancient Monument (SAM 201).

The lagoon excavation revealed a ditch aligned approximately north to south which has been tentatively dated to the Roman period as the fill produced one sherd of abraded Roman pottery. It is probable that this ditch represents a field boundary. The focus for the Roman settlement appears to have been situated to the west of the excavation area, within the exclusion zone and the SAM. It is considered that the area of the lagoon would have been utilised for associated agricultural activities. The modern field boundary adjacent can be traced back to the late 18th century as it is shown on the Inclosure map. It is possible that the Roman ditch is a precursor to the current boundary which has remained fossilized within the landscape throughout this time.

Two irregular pit features situated at the west end of the excavation area may date from the Bronze Age to Roman period and be associated with the enclosures adjacent, although they were intrinsically undated and it is possible that one of these was a tree bowl. Similarly deposits identified in four auger holes may relate to features associated with these enclosures.

A series of roughly east to west orientated plough furrows were dated to the post-medieval period, although they may have medieval origins. Features interpreted as the remains of tree bowls were frequent across the excavation area and are considered to date from the mid/late 20th century.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

Archaeological investigations was undertaken at Spring Hill Farm, Evesham Road, Lower Moor, Fladbury, Worcestershire (NGR SO 9887 4703; Fig 1), on behalf of Spring Hill Farms (Pershore) Ltd. They intend to develop the site with a glasshouse, lagoon, access track and associated works and submitted a planning application to Wychavon District Council (W/09/00640) who considers that a site of archaeological interest (WSM 34972) and a Scheduled Ancient Monument (SAM 201) may be affected.

1.2 Project parameters

The project conforms to *Standard and guidance for archaeological excavation* (IfA 2008a) and *Standard and guidance for an archaeological watching brief* (IfA 2008b).

The project also conforms to the Statement of Archaeological Constraints document (HEAS 2007) and the brief prepared by the Planning Advisory Section of Worcestershire County Council (the Curator), dated 29 April 2009 (HEAS 2009a) and for which a project proposal (including detailed specification) was produced (HEAS 2009b).

Scheduled Monument Consent (SMC) was obtained by the client for the works within the Scheduled Ancient Monument (SAM; HSD 9/2/14258 & 14422).

The archaeological background to the site is given in the brief (HEAS 2009a). The site has been the subject of an archaeological evaluation, comprising trenching and fieldwalking, undertaken by the Service in 2006 (WSM 35964 and 35967; Phear 2007).

1.3 Aims

The aims and scope of the project were to further clarify the nature of the archaeological remains identified during the previous evaluation within those areas of the site subject to groundworks.

In particular the project had three distinct elements:

- The *in situ* preservation of the main archaeological site defined as the archaeological exclusion zone in the statement of archaeological constraints (HEAS 2007)
- The recording of any archaeological deposits revealed during the excavation of the lagoon (Trench 80);
- A watching brief of groundworks within the archaeologically sensitive areas (exclusion zone and SAM)

2. Methods

2.1 Documentary search

No significant new information on the site has been added to the Historic Environment Record (HER) since the evaluation took place (Phear 2007).

2.2 Fieldwork methodology

2.2.1 Fieldwork strategy

A detailed specification was prepared by the Service (HEAS 2009b). Fieldwork was undertaken between 3 September and 13 October 2009. The site reference number and site code is WSM 40837.

The fieldwork comprised two elements: excavation and watching brief (Figs 2 and 6).

Excavation Trench 80(Plate 1)

The location and extent of the excavation area was specified in the brief as comprising a lagoon, a rectangular area of 11,725m², within the south-eastern corner of the site (HEAS 2009a). However, the client decided to enlarge the excavation area to incorporate associated works for the lagoon, so the total excavation area was approximately 16,800m².

Deposits considered not to be significant were removed using a 360° tracked excavator, employing a toothless bucket and under archaeological supervision. Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Service practice (CAS 1995).

Watching brief

Observation and recording of archaeological deposits were restricted to areas of ground disturbance within the archaeological exclusion zone and Scheduled Ancient Monument and were associated with construction (ground breaking and preparation, foundations, services, etc.) following the progress of the construction team.

The main areas observed were the augured stanchion bases for the glasshouse and the stripping for a new north to south aligned access track.

The only auger holes that were allocated numbers were those which produced finds or had a different stratigraphy from that generally observed on the site (AH 90-97).

2.2.2 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

2.3 Artefact methodology, by Angus Crawford

2.3.1 Artefact recovery policy

The artefact recovery policy conformed to standard Service practice (CAS 1995; appendix 4).

2.3.2 Method of analysis

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

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

2.4 Environmental archaeology methodology, by Nick Daffern

2.4.1 Sampling policy

The environmental sampling strategy conformed to standard Service practice (CAS 1995). Four samples of 40 litres were taken from slots along ditch (8007) for the purpose of macrofossil analysis. Two monoliths were taken from a machine cut trench in the north-eastern corner of the development site, where sand, gravel and gley clay deposits hypothesised to be of an early Devensian date were exposed.

2.5 Method of analysis

2.5.1 Macrofossil analysis

The samples were processed utilising standard flotation techniques using a Siraf tank. The flot was collected on a 300µm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were fully scanned by eye and the abundance of each category of environmental remains estimated. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by the Service, and seed identification manual (Cappers *et al* 2006). Nomenclature for the plant remains follows the New Flora of the British Isles, 2nd edition (Stace 1997).

2.5.2 Pollen analysis

The chemical preparation is based on the techniques outlined in Barber (1976) and Moore *et al* (1991). Sediment samples of 1cm^3 were measured volumetrically and were digested by potassium hydroxide for 10mins in a boiling water bath to break up the soil matrix and dissolve any humic material, sieved through a 120µm mesh, washed onto a 10µm mesh, and the residue collected.

The samples were then washed several times and centrifuged to remove humic acids. 10% hydrochloric acid was added in order to remove any calcium carbonate and digested using hydrofluoric acid in a hot water bath for 45 minutes to remove any silicaceous material. To remove cellulose material, the samples were acetolysed for 3 minutes. Finally the pollen pellet was stained with safranine, washed in alcohol to dehydrate the sample, and preserved in silicon oil.

Pollen grains were counted to a total of 150 land pollen grains (TLP) for assessment purposes on a GS binocular polarising microscope at 400x magnification, and identification was aided by using the pollen reference slide collection maintained by the Service, and the pollen reference manual by Moore *et al* (1991). Nomenclature for pollen follows Stace (1991, 1997) and Bennett (1994).

2.6 The methods in retrospect

During the watching brief it was difficult to be certain of the edge of the exclusion zone as this was not initially laid out as required (HEAS 2007; Fig 2). Therefore some of the auger holes within this area were not monitored.

The lack of access for some areas within the SAM (ie the excavation for the laying of a concrete protection slab over an existing water main at the entrance of the site off Salter's Lane, the strip for the site compound and the ground reduction in the area to the west the greenhouse (Figs 1, 2 & 6; Plate 7).

For the main excavation area (Fig 2), the methods adopted allow a high degree of confidence that the aims of the project have been achieved. However the lack of access granted to some of the areas excavated within the SAM and exclusion zone (Figs 2 & 6) reduced the overall degree of confidence in these investigations.

3. Topographical and archaeological context

The background to the site has been previously presented within the report on the evaluation of the site undertaken by the Service (Phear 2007, 5-6).

The evaluation comprised the excavation of seventy-two trenches, fieldwalking and metal detector survey. This revealed an area of dense activity within the south-west corner of the site, where cropmarks had previously been identified The remains were of probable Bronze Age and Iron Age settlement activity, along with evidence for Roman, medieval and post-medieval land use. The Bronze Age and Iron Age evidence was in the form of ditches (enclosure and drainage ditches), and structural remains such as pits and postholes, many of which provided datable artefacts. Two activity areas were identified, which were considered to be small-scale farming with possible animal corralling in the enclosed area, and unenclosed settlement to the southern extent of the site. This appeared to be the case for both Bronze Age and Iron Age periods (ibid).

Traces of Roman, medieval and post-medieval land use were ditches, ridge and furrow and land drainage features, identified through datable artefacts collected during both trenching and fieldwalking. Three of the ditches previously observed as cropmarks appeared to be Roman in date, indicating minor activity from this period amongst the other cropmarks. Cultivation of the land in the medieval period on a larger scale was evident through traces of east to west aligned ridge and furrow, which extends across the site, as well as additional ditches in the post-medieval period.

4. Results

4.1 Structural analysis

The trenches and features recorded are shown in Figs 2-6. The results of the structural analysis are presented in Appendix 1.

4.1.1 Phase 1 Natural deposits

The natural sands and gravels (8002) were exposed between 0.5m and 1m below the existing ground surface. Bands of clay and gravel were also observed in the north-east area of the lagoon excavation area. The subsoil (8001) comprised a sandy silt. This was disturbed and contained occasional Roman to post-medieval pottery (Section 4.2 below).

During the excavation, a machine dug trench in the north-eastern corner of the site exposed the underlying sands and gravels of the second Avon terrace, dating to the early Devensian. Within the sand deposits were gley clay bands and sedimentary structures including unidirectional ripple marks which indicate that these deposits are glaciofluvial or fluvial in origin and may represent fluctuations in depositional regimes within the environment relating to stadial and interstadial phases during the Devensian glaciation (Nick Daffern pers comm).

4.1.2 **Phase 2 Prehistoric**

A single residual flint flake was recovered from the ground surface. No other features, layers or artefacts of this date were identified.

4.1.3 **Phase 3 Roman deposits**

A ditch (8007, 8015, 8017, 8019, and 8023) aligned roughly north to south was identified in the far east of the lagoon excavation area (Plates 2-4; Fig 4). This varied from 1.10m to 1.58m wide and 0.29m to 0.60m in depth. The ditch had variable sides and a rounded base. Although only one sherd of abraded Roman pottery was recovered from one of the ditch slot fills (8014) the ditch could tentatively date from this period.

4.1.4 **Phase 4 Post-medieval and modern deposits**

Cutting the subsoil (8001) was a series of east to west aligned plough furrows (8004 and collectively 8009). Only one of these furrows (8004) was excavated by hand and was found to have a rounded base and concave sides. Finds from the fills (8003 and 8008) consisted of brick, tile, horseshoes, nails and pottery. The pottery dated from the Roman period onwards. Some of these furrows were identified in the evaluation trenches (Phear 2007). The excavation area was criss-crossed with post-medieval/modern land drains which often ran along the base of the plough furrows and lay underneath the topsoil (8000).

4.1.5 **Phase 5 Undated deposits**

Two features (8011 and 8013) were identified in the south-west corner of the excavation area (Fig 5; Plate 5). It is possible that feature (8011) equates to feature (207) in the Trench 2 in the evaluation which was interpreted as a tree bowl. No finds were recovered from the fills of these features in the excavation so they cannot be intrinsically dated.

Scattered across the area of the lagoon excavation were many dark grey irregular shaped features. A few of these were hand excavated and determined to be tree bowls or throws.

4.1.6 **The Auger Holes**

In Auger Holes 90-97 the stratigraphy consisted of up to 1m of made ground dumped for the present development, overlying approximately 0.40m of topsoil, approximately 0.30m of subsoil and natural sands and gravels at 1.85-1.95m depth (Fig 2; Plate 6).

In AH 93, 94, 96 and 97 a mid-dark sandy silt deposit was observed overlying the natural and below the subsoil. It is unclear what these deposits represented.

4.1.7 **The Access Road strip**

In the area of the access road toward the north-east corner of the SAM, up to 0.40m of material was removed, which exposed only topsoil, as per the constraints (HEAS 2007, 3) across a corridor averaging 5m wide. The topsoil was similar to that within the Auger Holes to the east and the main excavation area to the south-east (Fig 2; Plates 7 and 8). No significant archaeological features or layers were observed, nor finds retrieved.

4.1.8 **Ground reduction to north of the Access Road strip, west of the Greenhouse**

This area lay within the north-east corner of the SAM (Fig 2; Plate 9). It was not made available for archaeological monitoring during excavation.

It is unclear exactly what depth the area was dug to, as redeposited natural had been laid and rolled within the strip. Along the western edge the depth was determined to be approximately 0.30m. The natural matrix within the Auger Holes adjacent lay below approximately 0.70m of topsoil and subsoil.

4.1.9 **Ground reduction for Site Compound**

This area lay to the south-west of the main development site, within the east side of the SAM (Fig 2; Plate 10). As with the area above, it was not made available for monitoring prior to a layer of stone being deposited.

The spoil heaps were observed and the depth of excavation determined along the edges at 0.10m-0.15m. The spoil comprised topsoil and vegetation, indicating that no deeper deposits had been exposed.

4.1.10 **Trench for concrete reinforcement over water pipe**

This trench was excavated within the western side of the SAM, to reinforce the existing track of Salter's Lane where it lay over a water main pipe (Fig 6; Plates 11 and 12). It was approximately 4m east to west, by 9.5m north to south. The trench was dug and concreted prior to monitoring. It is therefore unclear to what depth it was dug, although the plans indicated up to 1.3m over the 27" pipe which is understood to lie up to approximately 2m below the ground surface.

The upper approximately 0.50m of the south section was the only one visible. It revealed dark brown sandy silt topsoil over undulating mid orange silty sand subsoil or natural. It is unclear if the undulation represented ridge and furrow or disturbance from the existing water pipe. The spoil was not available for scanning for artefacts.

Proposals to excavate a double width trench to reinforce two further pipes immediately to the west were altered and a ramp constructed instead, which did not intrude below the level of the existing hardcore gravel of the track.

4.1.11 **Postholes for New Gate off Salter's Lane**

Five postholes were excavated either side of the existing track off Salter's Lane within the west side of the SAM (Fig 6). They were not made available for archaeological monitoring. They were less than 0.75m in diameter. It is understood that they were each approximately 1m deep. It is unclear what deposits were disturbed by these interventions.

4.2 Artefact analysis, by Angus Crawford

The artefactual assemblage recovered is summarised in Tables 1 and 2. The pottery assemblage retrieved from the excavated area consisted of 30 sherds of pottery weighing 273g, In addition fragments of iron work, brick, roof tile, worked flint and animal bone were recovered. The group came from 10 stratified contexts and could be dated from the Roman period onwards (see Table 1). The level of preservation was generally poor with the majority of sherds displaying high levels of abrasion.

period	material class	count	weight(g)
	bone	3	21
	ceramic	3	288
prehistoric	stone	1	9
Roman	ceramic	3	39
medieval	ceramic	48	1790
post-medieval	ceramic	8	108
post-medieval	metal	5	266
modern	ceramic	2	22

Table 1: Quantification of the assemblage

4.2.1 The pottery

All sherds have been grouped and quantified according to fabric type (Table 2). Few diagnostic form sherds were present with the majority of sherds datable by fabric type to their general period or production span. Where mentioned, all specific forms are referenced to the type series within the report for Deansway, Worcester (Bryant 2004).

period	fabric code	fabric common name	count	weight(g)
Roman	12	Severn Valley ware	2	38
Roman	43	Samian ware	1	1
medieval	64.1	Worcester-type sandy glazed ware	1	8
medieval	69	Oxidized glazed Malvernian ware	16	96
post-medieval	78	Post-medieval red wares	6	92
post-medieval	84	Creamware	1	3
post-medieval	90	Post-medieval orange ware	1	13
modern	85	Modern China	1	18
modern	101	Miscellaneous modern wares	1	4

Table 2: Quantification of the pottery by period and fabric-type

Roman

Only three sherds of Roman pottery were present within the assemblage. All were highly abraded and consisted of two sherds of oxidised Severn Valley ware (fabric 12, furrow fill 8008) and a highly abraded Samian sherd (fabric 43, ditch fill 8014). All sherds could only be dated to a general production span with the oxidised Severn Valley ware dating from the mid 1st to 4th century and the Samian ware dating from the mid 1st to mid 3rd century.

Medieval

The medieval pottery assemblage consisted of 17 small and abraded sherds. The dominant fabric type within the assemblage was oxidised glazed Malvernian ware (fabric 69) with 16 sherds. Of these, three rims were present which included a probable bunghole jar (subsoil 8001), with external thumbed decoration, dated to the 15th to 16th century. The remaining forms types were jugs that could only be broadly dated to the medieval period.

The remaining medieval sherd was of Worcester-type sandy glazed ware (fabric 64.1, topsoil 8000) which could only be dated to a general production span of late 11th to 14th century (Bryant 2004).

Post-medieval

The post-medieval pottery assemblage was dominated by post-medieval red sandy wares (fabric 78) with five sherds from furrow fill 8008 and single sherds from topsoil 8000 and furrow fill 8003. All were of a general 18th century appearance though a possible 17th century sherd was noted from furrow fill 8008.

The remaining post-medieval pottery assemblage consisted of a single sherd of Creamware (fabric 84, furrow fill 8008) produced from 1760 to 1790 and a sherd of post-medieval buff (fabric 90, furrow fill 8008) ware of general 18th century date.

Modern

The only modern sherd of pottery within the assemblage was a rim sherd from a flower pot and probably of 19th century date (fabric 101, subsoil 8001).

4.2.2 Other artefacts

Prehistoric flint

A small piece of brown flint exhibiting a number of working scars was classified as general production debitage of indeterminate prehistoric date (unstratified context) (Robin Jackson pers comm.).

Roof tile and Brick

Thirty four fragments of roof tile were recorded within the assemblage. These (from subsoils 8001, 9002, 9102, 9202 and 9502 and furrow fill 8008) were abraded and of a general medieval appearance. Of these two still retained traces of translucent glaze and reduced cores commonly associated with tiles of this period, and especially the ridge tiles.

The three brick fragments identified within the assemblage (topsoil 8000) were broadly dated on general appearance and condition as medieval or early post-medieval.

Ironwork

Ironwork was poorly represented within the assemblage and consisted of a post-medieval horseshoe (furrow fill 8008), and a small piece of smelting slag of uncertain date (furrow fill 8008).

4.2.3 Overview of artefactual evidence

Prehistoric

No prehistoric material of any significance was identified within the assemblage. However, the residual piece of flint debitage indicates low level activity in this locale during this period.

Roman

The small size of the Roman pottery assemblage and the highly abraded condition of the sherds does not indicate any significant activity on site during the Roman period, and would probably be best explained as a manuring scatter.

Medieval

The small sherd size and abraded condition of the medieval pottery assemblage was consistent with general rubbish discard during the period. With contexts 9003, 9102, 9202 and 9502

being probable medieval agricultural contexts it can be further suggested that the medieval assemblage may have been deposited during general field manuring.

Post-medieval and later periods

As with the medieval assemblage the post-medieval and later material is consistent with general rubbish discard or field manuring during 17th century onwards.

context	material class	object specific type	count	Weight(g)	start date	end date	context *terminus post quem* date
Unstrat	stone	debitage	1	9			
8000	ceramic	pottery	1	8	1701	1800	18th century
8000	ceramic	pottery	1	8	1075	1400	
8000	ceramic	pottery	1	1	1275	1625	
8000	ceramic	brick	3	482	1201	1550	
8001	ceramic	roof tile	2	86	1201	1550	19th to mid 20th century
8001	ceramic	pottery	1	4	1801	1950	
8001	ceramic	pottery	1	16	1401	1600	
8003	ceramic	pottery	1	13	1701	1800	18th century
8003	ceramic	pottery	1	1	1275	1550	
8008	ceramic	pottery	1	23	1701	1800	18th century
8008	bone	animal	3	21	0	0	
8008	ceramic	pottery	1	3	1760	1820	
8008	metal	horse shoe	1	167	1701	1900	
8008	ceramic	pottery	2	41	1701	1800	
8008	ceramic	pottery	1	7	1601	1700	
8008	ceramic	pottery	1	13	1701	1800	
8008	metal	smelting slag	4	99	1701	1900	
8008	ceramic	pottery	2	38	43	400	
8008	ceramic	pottery	13	78	1275	1550	
8008	ceramic	roof tile	23	1016	1200	1550	
8014	ceramic	pottery	1	1	43	250	Roman
9002	ceramic	roof tile	1	26	1201	1800	(?)medieval
9102	ceramic	roof tile	1	65	1201	1550	13th to 16th century
9202	ceramic	roof tile	2	37	1201	1550	13th to 16th century
9502	ceramic	roof tile	1	34	1201	1800	(?)medieval

Table 3 Summary of context dating based on artefacts

4.3 Environmental analysis, by Nick Daffern and Alan Clapham

4.3.1 Plant macrofossil remains

Three (8014, 8016 and 8022) of the four samples taken from ditch (8007) were processed and analysed, the fourth was not subject to analysis due to potential contamination from a land drain that truncated the ditch.

A single charred free-threshing wheat (Triticum sp) grain was recovered from fill 8022. The lack of cereal remains (grain and chaff) suggests that this represents a 'background flora'. The only plant remains recovered from the residues were a very small number of charcoal fragments which were considered too small to produce an accurate identification. No further work is recommended.

4.3.2 Pollen Analysis

Four sub-samples were taken from the clay bands within the natural sand and gravel matrix to assess for the presence and preservation of palynological remains. Upon analysis, it was revealed that the sub-samples contained only occasional palynological material which consisted of heavily folded pollen grains and indeterminate spores. Therefore, the material is of no assistance in dating the deposits or giving an insight into the landscape and vegetation of the hypothesised period of deposition i.e. the early Devensian.

5. Synthesis and significance

5.1 Artefactual significance, by Angus Crawford

The site assemblage is consistent with general agricultural and rubbish discard activity during the medieval through to the modern period. Overall the assemblage is of limited archaeological significance beyond those types of pottery utilised within the location from the medieval period onwards.

5.2 Prehistoric

A flint flake identified as debitage was recovered from the surface. The evaluation and fieldwalking uncovered flint dated from the Neolithic and Bronze Age so a further find from this period is unsurprising and indicates only low level activity, probably associated with the cropmark evidence of mid/late Neolithic activity to the south and agricultural enclosures to the west (Phear 2007, 16-17)

No evidence of Iron Age activity was identified to compliment that revealed within the evaluation (Phear 2007, 17-18).

5.3 Roman

Although the ditch only produced one sherd of abraded Roman pottery it can tentatively be suggested that it dates from this period. It was identified below subsoil (8001) and was truncated by post-medieval plough furrows. It was not exposed during the evaluation as it lay between Trenches 5 and 13 and appears to continue northwards beyond the east extent of Trench 28(Phear 2007, fig 16). It is probable that this ditch represents a boundary, perhaps a field boundary.

The focus for the Roman settlement appears to be situated to the west of the excavation area, within the exclusion zone and the SAM. It is likely that the area of the lagoon would have been utilised for agricultural purposes in the Roman period. The modern field boundary can be traced back at least to the late 18th century as it is shown on the Inclosure map (Guyatt 1999). It is possible that the Roman ditch is a precursor to the current boundary which has remained fossilized within the landscape throughout this time.

5.4 Post-medieval and modern periods

It is considered that the furrows aligned east to west across the field had their origins in the medieval period and continued to be worked into the post-medieval period. Fields to the north-west of the site, to the north of the Evesham Road, contain extant ridge and furrow earthworks (WSM 30359 and 05614).

The various undated tree bowls and throws are conjectured to be of fruit trees which are understood to have existed on the site in the mid/late 20th century (Matt Powell pers comm).

5.5 Undated

The two irregular pit features situated at the west end of the lagoon excavation (8011 and 8013) may be assigned to the Roman period or earlier as they lie adjacent to the focus of Bronze Age, Iron Age and minor Roman activity previously identified, although they contained no dating evidence. Pit (8011) may equate to (207) in Evaluation Trench 2, which was interpreted as a tree bowl.

Although similarly intrinsically undated, the mid-dark sandy silt deposits recorded in four of the auger holes (AH 93, 94, 96 and 97) lie in the immediate vicinity of and may relate to the Bronze Age to Iron Age enclosures previously identified as cropmarks and exposed in the evaluation trenches (Phear 2007).

5.6 The works within the Scheduled Ancient Monument

No features or deposits of archaeological significance were observed within the strip for the north to south aligned access road, as it was not excavated below the level of the topsoil. Although the strip for the compound and the ground reduction area to the north of the access road were not observed, given their shallow depth (approximately 0.15m and 0.30m respectively), it is considered unlikely that the works here would have impinged upon archaeological layers.

The works to the west end of the SAM along the existing track were deeper. The postholes covered a relatively minor area but were to be dug to approximately 1m. The trench for the water pipe reinforcement covered a larger area. This had however previously been partially disturbed during the laying of the pipe. These interventions may well have disturbed archaeological deposits associated with the cropmarks of interlinked enclosures, although the focus of intensive activity appears to be more to the south and east.

6. Publication summary

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

Archaeological investigations were undertaken on behalf of Spring Hill Farms (Pershore) Ltd, at Spring Hill Farm, Evesham Road, Lower Moor, Fladbury, Worcestershire (NGR SO 9887 4703). The project involved excavation and recording of all archaeological deposits within the area of the lagoon, along with a watching brief of all groundworks within the area of the archaeological exclusion zone and Scheduled Ancient Monument.

The lagoon excavation revealed a ditch aligned approximately north to south which has been tentatively dated to the Roman period as the fill produced one sherd of abraded Roman pottery. It is probable that this ditch represents a field boundary. The focus for the Roman settlement appears to have been situated to the west of the excavation area, within the exclusion zone and the SAM. It is considered that the area of the lagoon would have been utilised for agricultural activities. The modern field boundary adjacent can be traced back at least to the late 18th century as it is shown on the Inclosure map. It is possible that the Roman ditch is a precursor to the current boundary which has remained fossilized within the landscape throughout this time.

Two irregular pit features situated at the west end of the excavation area may date from the Bronze Age to Roman period and be associated with the enclosures adjacent, although they were intrinsically undated and it is possible that one of these was a tree bowl. Similarly deposits identified in four auger holes may relate to features associated with these enclosures.

A series of roughly east to west orientated plough furrows were dated to the post-medieval period, although they may have medieval origins. Features interpreted as the remains of tree bowls were frequent across the excavation area and are considered to date from the mid/late 20th century.

7. Acknowledgements

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, Laura Holt, Rick Holt, Rowley Holt and Matt Powell (Spring Hill Farms (Pershore) Ltd), Peter Frampton (Framptons), Mike Glyde (Worcestershire County Council Historic Environment Planning Officer), Tony Fleming and Ian George (English Heritage).

8. Personnel

The fieldwork was led by Jo Wainwright. The project manager responsible for the quality of the project was Tom Vaughan. Fieldwork was undertaken by Adam Lee, Nick Daffern, Darren Miller, Elizabeth Curran, Tim Cornah and Tegan Cole. Finds analysis was by Angus Crawford, environmental analysis was by Nick Daffern and Alan Clapham. Illustration was by Carolyn Hunt and Steve Rigby.

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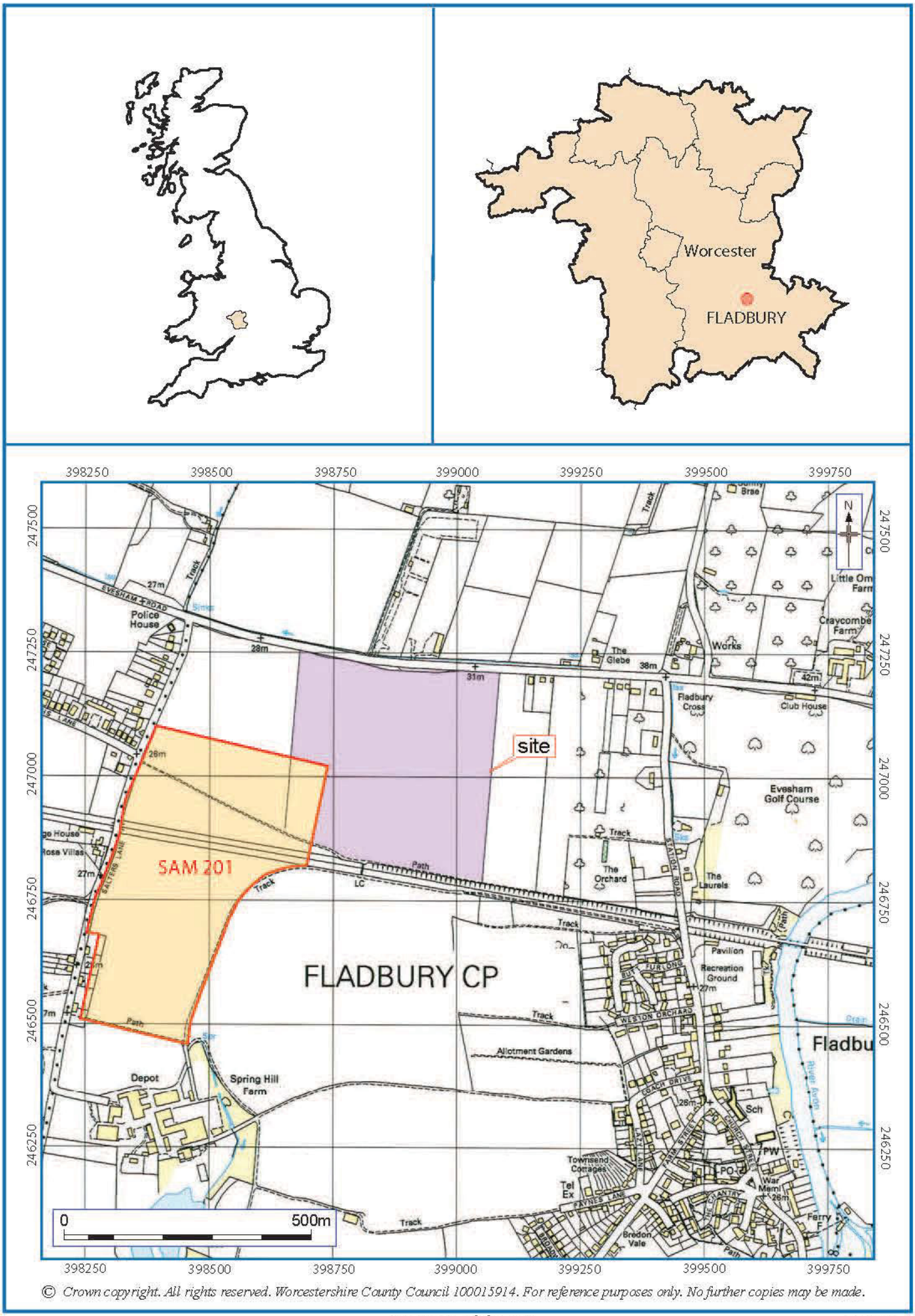
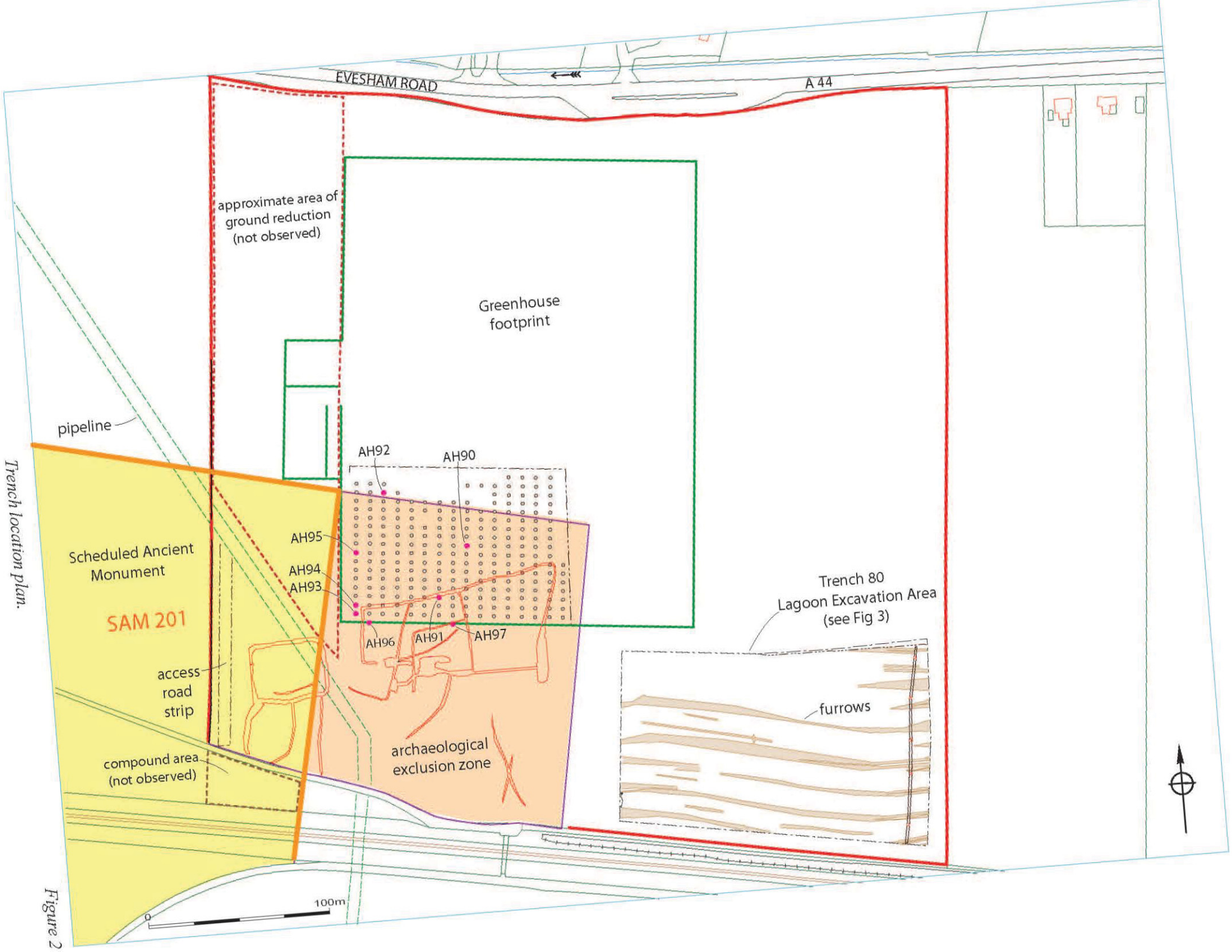
Figures



Location of the site. *Figure 1*

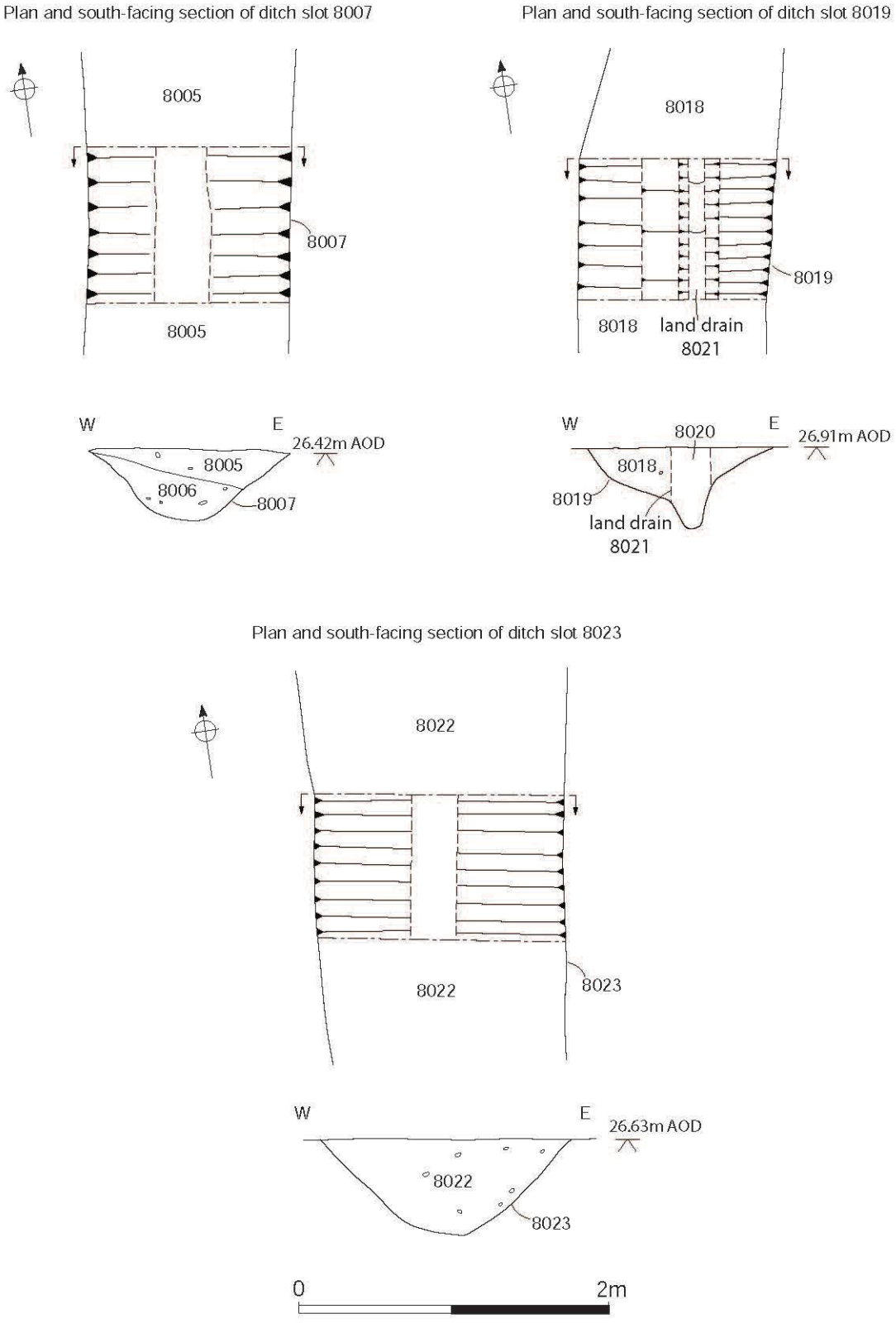


Trench location plan.

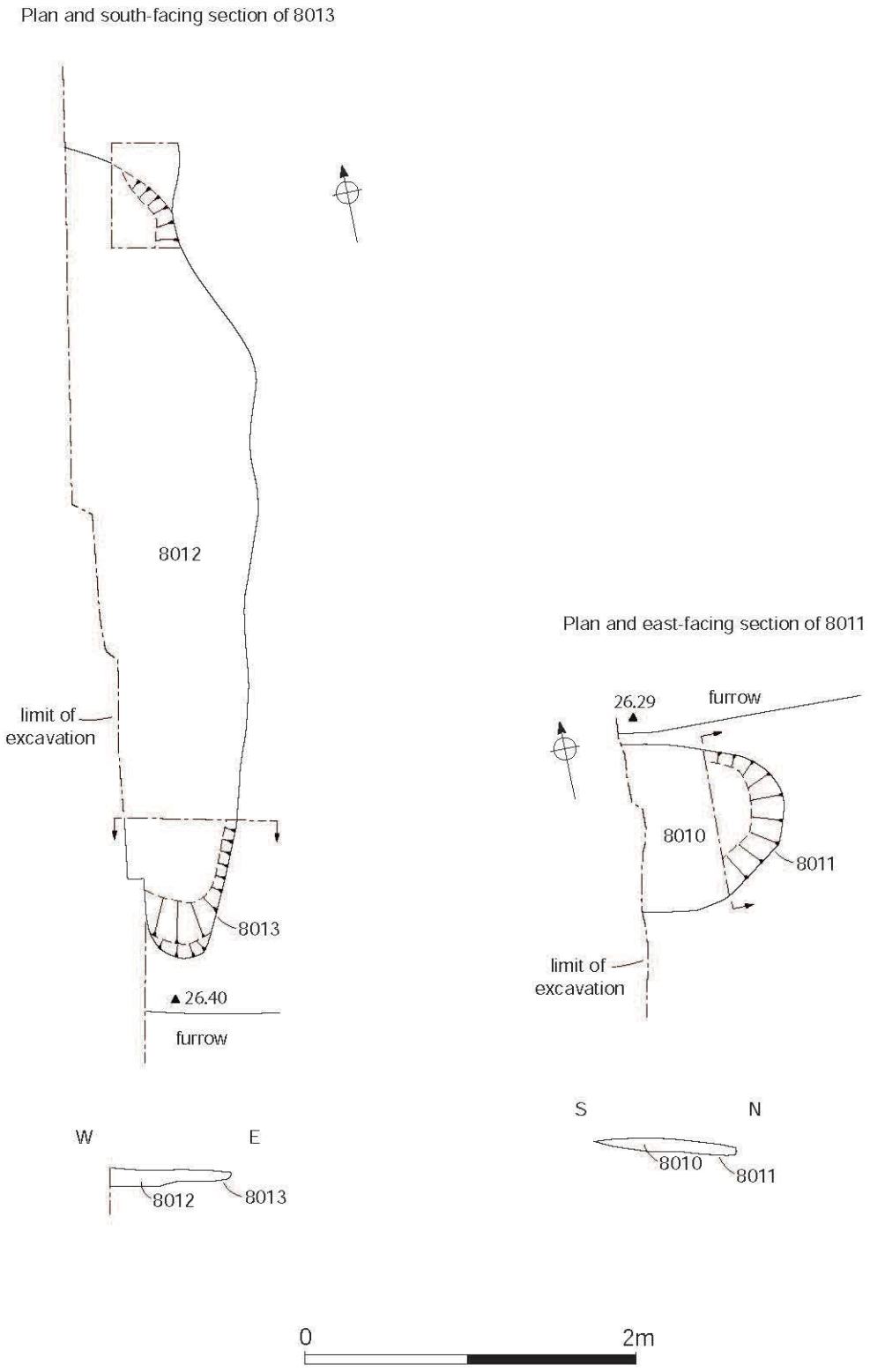
Figure 2

Plan of Trench 80.

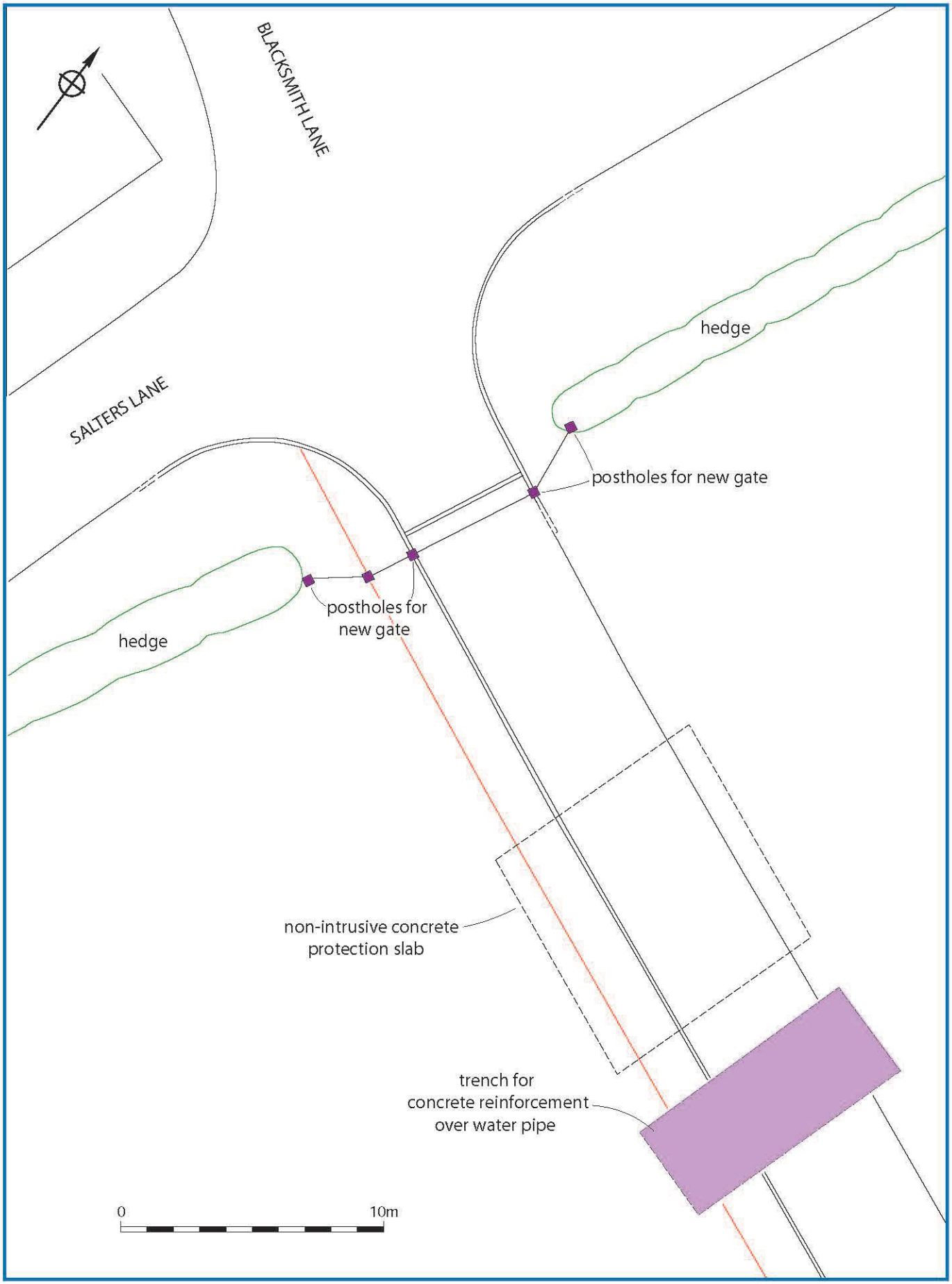
Figu



Ditch slots 8005, 8019 and 8023: plans and sections. *Figure 4*



Features 8013 and 8011: plans and sections. *Figure 5*



Location of intrusive works to west end of SAM.

Figure 6

Plates

Plate 1 Excavation of Trench 80, the lagoon area, view west

Plate 2 Ditch (8007, 8015, 8017, 8019 and 8022) cut by a later furrow, pre-excavation, view south

Plate 3 Ditch section (8007), view north

Plate 4 Ditch section (8023), view north

Plate 5 Features (8011) and (8013) view north

Plate 6 Excavation of the auger holes for the greenhouse, view north-east

Plate 7 Stripping of the north to south aligned access road within the Scheduled Ancient Monument, view south

Plate 8 Access road aligned north to south within the Scheduled Ancient Monument fully stripped, view north. The area in the background is the area to the west of the greenhouse which was stripped and rolled prior to monitoring

Plate 9 General view south of ground reduction within north-eat corner of Scheduled Ancient Monument, north of Access Road, after excavation and replacement of material

Plate 10 General view south-east of Site Compound after area reduced and stone laid

Plate 11 General view south-east of trench for reinforcement over water pipe

Plate 12 View south of trench for reinforcement over water pipe

Appendix 1 Context descriptions

Trench 80 - Lagoon Excavation Area

Maximum dimensions Length: 170m Width: 114m Depth: 1m

Orientation NNW-SSE

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
8000	Topsoil	Friable mid grey brown sandy silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting. Varies in depth and composition across the area.	0.00-0.50m
8001	Subsoil	Friable to firm mid grey brown to orangey sandy silt in the south. Sticky brown sandy clay in the north. Contains moderate rounded and sub-rounded pebbles, occasional charcoal, pottery and patches of decayed organic material.	*c*0.30-1.00m
8002	Natural	Orange sands and gravels. Band of clay and gravel to north-east side of area.	*c*0.45m+
8003	Fill	Friable mid brown grey sandy silt with occasional small to large sub-rounded and rounded pebbles and charcoal. Produced 18th century pottery and one sherd of residual Roman pottery. Fill of 8004.	
8004	Plough furrow	Open ended linear cut running east to west with concave sides and a rounded base. Depth about 0.20m. Cuts 8001.	
8005	Fill	Firm to friable light greyish brown sandy clay with occasional sub-rounded and rounded small to large pebbles and charcoal. Upper fill of ditch 8007.	
8006	Fill	Friable mid orange grey sandy silty clay with occasional rounded and sub-rounded small to large pebbles, charcoal and small patches of orange sand. Primary fill of ditch 8007	
8007	Ditch	Open ended linear cut running north to south. At least 110m long and about 1.10m wide. Slightly convex sides and rounded base. Depth about 0.45m. Truncated by east to west running plough furrows. Cuts natural 8002. Equates to ditch slots 8015, 8017, 8019 and 8023	
8008	Fill	Friable mid brown grey with occasional orange mottling sandy silt to sandy clay. Occasional sub-rounded and rounded small to large pebbles, charcoal, tile, brick. Dated to 18th century from finds but produced residual Roman pottery. General context give to fills of plough furrows. Fill of 8009.	
8009	Plough furrows	Open ended linear generally running east to west. Sometimes splits into two linears. Concave sides and rounded base. Land drains seem to be deliberately follow furrows. General context number given to furrows across site. Cuts layer 8001 and ditch 8007 etc.	
8010	Fill	Friable mid orange grey sandy clay with occasional to moderate small to large sub-rounded and rounded pebbles. Fill of 8011.	

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
8011	Pit or tree bowl	Possibly sub-circular or sub-square (disappears into section). Only the base of feature seen which was dish shaped. Maximum 60mm deep.	
8012	Fill	Friable mid grey brown sandy clay with occasional sub-rounded and rounded pebbles and charcoal. Fill of 8013	
8013	Pit cut?	Irregular shaped feature which disappears in section. Only base really seen which was irregular. Depth maximum 70mm. .	
8014	Fill	Cemented mid greyish brown silty clay with occasional small rounded pebbles. Fill of 8013. Produced one sherd of abraded Roman pottery.	
8015	Ditch	Open ended linear cut running north to south. At least 110m long and about 1.25m wide. Slightly concave sides and rounded base. Depth about 0.40m. Truncated by east to west running plough furrows. Cuts natural 8002. Equates to ditch slots 8007, 8017, 8019 and 8023.	
8016	Fill	Cemented mid greyish orange brown silty clay with occasional small rounded pebbles. Fill of 8017.	
8017	Ditch	Open ended linear cut running north to south. At least 110m long and about 1.34m wide. Steep concave sides and rounded base. Depth about 0.29m. Truncated by east to west running plough furrows. Cuts natural 8002. Equates to ditch slots 8007, 8015, 8019 and 8023.	
8018	Fill	Cemented mid greyish orange brown silty clay with occasional small rounded pebbles. Fill of 8019. Cut by land drain (8021).	
8019	Ditch	Open ended linear cut running north to south. At least 110m long and about 1.14m wide. Steep concave sides and rounded base. Depth about 0.32m. Truncated by east to west running plough furrows. Cuts natural 8002. Equates to ditch slots 8007, 8015, 8017 and 8023	
8020	Fill	Backfill and ceramic land drain of cut 8021	
8021	Cut for land drain	Cut for land drain	
8022	Fill	Cemented mid greyish orange brown silty clay with occasional small rounded pebbles. Fill of 8023.	
8023	Ditch	Open ended linear cut running north to south. At least 110m long and about 1.58m wide. Steep concave sides and rounded to flat base. Depth about 0.60m. Truncated by east to west running plough furrows. Cuts natural 8002. Equates to ditch slots 8007, 8015, 8017 and 8019.	

Auger Holes for Greenhouse

AH 90

Maximum dimensions: Diameter: 0.60m Depth: 1.80m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9000	Made ground	Re-deposited natural sands and gravels and sandy clay. Frequent small/large pebbles. Make-up for the construction of the greenhouse.	0.00-*c* 1.00m
9001	Topsoil	Friable mid grey brown sandy silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	>1.00m
9002	Subsoil	Mid orange brown sandy silt with clay patches. Compact. Frequent sub-rounded and sub-angular pebbles. Pottery found at 1.40-1.50m depth; Inc fragments of land drain.	Unrecorded
9003	Natural	Orange sands and gravels	Unrecorded

AH 91

Maximum dimensions: Diameter: 0.60m Depth: 2.00m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9100	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00 – *c* 1.00m
9101	Topsoil	Friable mid grey brown sandy silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	>1.00m
9102	Subsoil	Mid orange brown sandy silt with clay patches. Frequent sub-rounded pebbles. Pottery found at 1.30-1.50m depth. Inc fragment of land drain.	<1.85m
9103	Natural	Mid reddish brown sands and gravels.	1.85m+

AH 92

Maximum dimensions: Diameter: 0.60m Depth: unrecorded

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9200	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse. Depth c. 1.00m.	0.00-0.75m
9201	Topsoil	Friable mid grey brown sandy silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	>0.75m
9202	Subsoil	Firm mid grey brown sandy clay. Moderate round, sub-rounded and sub-angular pebbles. Pottery found at 1.15-1.30m depth.	unrecorded
9203	Natural	Mid reddish brown sands and gravels.	unrecorded

AH 93

Maximum dimensions: Diameter: 0.60m Depth: 2.25m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9300	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00 – *c* 1.00m
9301	Topsoil	Friable mid grey brown clay silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	*c* 1.00-1.40m
9302	Subsoil	Firm reddish grey brown silty sand. Moderate sub-rounded pebbles	1.40-1.70m
9303	Fill?	Mid to dark blackish brown sandy silt with occasional sub-rounded pebbles. Could be fill of tree bowl?	1.70-1.40m
9304	Natural	Coarse compact reddish orange sands, orange sand and gravels.	1.95m+

AH 94

Maximum dimensions: Diameter: 0.60m Depth: 2.19m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9400	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00-*c* 1.00m
9401	Topsoil	Friable mid grey brown clay silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	*c* 1.00-1.40m
9402	Subsoil	Firm reddish grey brown silty sand. Moderate sub-rounded pebbles	1.40-1.70m
9403	Fill?	Mid to dark blackish brown sandy silt with occasional sub-rounded pebbles. Could be fill of tree bowl?	1.70-1.95m
9404	Natural	Coarse compact reddish orange sands, orange sand and gravels.	1.95m+

AH 95

Maximum dimensions: Diameter: 0.60m Depth: 2.40m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9500	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00-*c* 1.00m
9501	Topsoil	Friable mid grey brown clay silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	>1.00m
9502	Subsoil	Firm reddish grey brown silty sand. Moderate sub-rounded pebbles. Pottery found at 1.20-1.40m depth.	unrecorded
9503	Natural	Coarse compact reddish orange sands, orange sand and gravels.	unrecorded

AH96

Maximum dimensions: Diameter: 0.55m Depth: 2.00m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9600	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00 – 1.00m
9601	Topsoil	Friable mid grey brown clay silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting.	>1.00m
9602	Subsoil	Firm reddish grey brown silty sand. Moderate sub-rounded pebbles	unrecorded
9603	Fill?	Dark black brown sandy clay. Could be fill of tree bowl or feature fill?	unrecorded
9604	Natural	Orange sands and gravels	unrecorded

AH 97

Maximum dimensions: Diameter: 0.55m Depth: 2.00m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
9700	Made ground	Re-deposited natural sands and gravels. Make-up for the construction of the greenhouse.	0.00–1.00m
9701	Topsoil	Friable mid grey brown clay silt with occasional sub-rounded and rounded pebbles, occasional brick, tile and charcoal. Frequent root action and worm sorting. Varies in depth and composition across the area.	>1.00m
9702	Subsoil	Firm reddish grey brown silty sand. Moderate sub-rounded pebbles	unrecorded
9703	Fill?	Mid yellow brown sandy silt. Could be fill of tree bowl or feature fill? Pottery found at 1.4m depth.	unrecorded
9704	Natural	Orange sands and gravels.	unrecorded

Appendix 2 Technical information

The archive

The archive consists of:

19	Context records AS1
25	Fieldwork progress records AS2
4	Photographic records AS3
163	Digital photographs
1	Drawing number catalogues AS4
1	Context number catalogues AS5
1	Sample number records AS18
7	Trench record sheets AS41
17	Scale drawings
1	Box of finds
1	Computer disk

The project archive is intended to be placed at:

Worcestershire County Museum
Hartlebury Castle
Hartlebury
Near Kidderminster
Worcestershire DY11 7XZ
Tel Hartlebury (01299) 250416

Summary of data for Worcestershire HER

WSM 40837 (event HER number)
P3373
Artefacts

period	material class	object specific type	count	weight(g)	start date	end date	Specialist report	Key assemblage
	bone		3	21	0	0	N	N
prehistoric	stone	debitage	1	9	0	0	Y	N
Roman	ceramic	pot	2	38	43	400	Y	N
Roman	ceramic	pot	1	1	43	250	Y	N
medieval	ceramic	Roof tile	23	1016	1200	1550	Y	N
medieval	ceramic	brick	3	482	1066	1550	Y	N
medieval	ceramic	pot	1	1	1275	1625	Y	N
medieval	ceramic	pot	1	8	1075	1400	Y	N
medieval	ceramic	pot	1	16	1401	1600	Y	N
medieval	ceramic	pot	1	1	1275	1550	Y	N
medieval	ceramic	pot	13	78	1275	1550	Y	N
medieval	ceramic	roof tile	2	37	1201	1550	Y	N
medieval	ceramic	roof tile	2	86	1201	1550	Y	N
medieval	ceramic	roof tile	1	65	1201	1550	Y	N
Medieval to post-medieval	ceramic	roof tile	3	288	1201	1800	Y	N
post-medieval	ceramic	pot	2	41	1701	1800	Y	N
post-medieval	ceramic	pot	1	7	1601	1700	Y	N
post-medieval	ceramic	pot	1	23	1701	1800	Y	N
post-medieval	ceramic	pot	1	3	1760	1820	Y	N
post-medieval	ceramic	pot	1	13	1701	1800	Y	N
post-medieval	ceramic	pot	1	13	1701	1800	Y	N
post-medieval	ceramic	pot	1	8	1700	1800	Y	N
post-medieval	metal	Knife	1	167	1701	1900	Y	N
post-medieval	metal	smelting slag	4	99	1701	1900	Y	N
modern	ceramic	pot	1	18	1800	1900	Y	N
modern	ceramic	pot	1	4	1800	1950	Y	N