Archaeological watching brief at Hartlebury Castle, Hartlebury, Worcestershire

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Contents

Archaeological watching brief at Hartlebury Castle, Hartlebury, Worcestershire

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Summary

An archaeological watching brief was undertaken at Hartlebury Castle, Hartlebury, Worcestershire (NGR SO 8363 7124). It was undertaken for Ryder Landscape Consultants on behalf of the Hartlebury Castle Preservation Trust, who proposed construction of two car parks (one an overflow car park and another an additional car park), together with associated tracks and drainage, and was considered to have the potential to affect a heritage asset and for which planning permission (W/14/0159) had been granted by Wychavon District Council, subject to archaeological conditions.

The groundworks were monitored by an archaeologist. This involved the topsoil strip of the car park area to the construction level, under archaeological supervision. A metal detector was used to scan the ground surface and the spoil heaps for finds, due to the potential for civil war activity on the site.

In the south west of the site a trackway consisting of worn, crushed and worked sandstone blocks was discovered, within a subsoil matrix. This was orientated north-west to south-east, was 3.30m wide and had a raised area 12.00m long at its south-western limit. A number of medieval ceramic finds were recovered from the surface of the structure after cleaning, and small finds such as lead and copper alloy items were recovered from the topsoil and subsoil in the area of the car park. The presence of high-quality glazed Malvernian ridge tiles is consistent with the status of the castle in the late medieval/early post-medieval period. Of interest is the presence of tiles which may be of local manufacture. Lead projectiles showing evidence of discharge and impact raise questions over the veracity of the account that the Civil War siege ended without a shot being fired. The north-western section of the trackway had been truncated by later activity in the area or had worn away.

A series of modern truncations relating to services and existing car parking and landscaping were observed in the western part of the site. Drainage trenches were only excavated into the backfill of the existing service trench. Tree pits monitored in the western part of the site revealed no further significant archaeological finds, features or deposits, with only made ground and natural observed.

The trackway was not recorded on the recent geophysical survey, although it is evident as a landscape feature on the recent Lidar survey and is recorded on the 1888 1st edition Ordnance Survey and later editions as an avenue of trees on the same alignment. The medieval and post-medieval finds from the structure and surrounding area suggest an earlier origin of the trackway, providing access between the castle and the surrounding parkland.

Report

1 Background

1.1 Reasons for the project

An archaeological watching brief was undertaken at Hartlebury Castle, Hartlebury, Worcestershire (NGR SO 8363 7124; Fig 1). It was commissioned by Ryder Landscape Consultants on behalf of the Hartlebury Castle Preservation Trust who proposed construction of two car parks (one an overflow car park and another an additional car park), together with associated tracks and drainage for which a planning application has been granted by Wychavon District Council, subject to archaeological conditions.

The proposed development site is considered to include heritage assets and potential heritage assets, the significance of which may be affected by the application (Hartlebury castle - WSM 0001).

The project conforms to the generality of briefs previously issued by the Curator (Advice and Information Section, Archive and Archaeology Service, Worcestershire County Council ; WCC 2014) and for which a project proposal (including detailed specification) was produced (WA 2017).

The project also conforms to the Standard and guidance: Archaeological watching brief (CIfA 2014a), Standards and guidelines for archaeological projects in Worcestershire (WCC 2010).

The event reference for this project, given by the HER is WSM 68500.

2 Aims

A desk-based assessment (Cornah and Robson-Glyde 2014) indicated that significant deposits may be defined as those likely to be of post-medieval date, especially relating to the Civil War.

In particular the project had the following aims:

• To record any archaeological evidence relating to the Civil War.

• To record any other archaeological evidence that may be identified during the course of the works.

3 Methods

3.1 Personnel

The project was led by Graham Arnold (BA (hons.), MSc), and Timothy Cornah (BA (hons.), MSc). The project manager responsible for the quality of the project was Simon Woodiwiss (BA (hons.); MCIfA). Illustrations were prepared by Carolyn Hunt (BSc (hons.); PG Cert; MCIfA), Robert Hedge (MA Cantab) contributed the finds report, whilst Richard Bradley (BA, MA, ACIfA) commented on the small finds.

3.2 Documentary research

An archaeological desk-based assessment (DBA) was undertaken on behalf of The Hartlebury Castle Preservation Trust (Cornah and Robson-Glyde 2014).

Geophysical survey of additional car park area was undertaken prior to the works (Prestidge 2014). The survey identified two areas of possible archaeological interest; an area of possible compacted ground related to a former driveway, and an area of landscaping related to post-medieval quarrying, though these features are not of the greatest significance.

3.3 List of sources consulted

Cartographic sources

- 1821 Inclosure map WROBA709/2v899:57.
- 1834 Tithe map WROBA1572F760/317
- 1888 1st edition Ordnance Survey, 1:2500
- 1902-3 Ordnance Survey, 1:2500
- 1927 Ordnance Survey, 1:2500

Aerial photographs

- LiDar Survey

Documentary sources

Published and grey literature sources are listed in the bibliography.

3.4 Fieldwork strategy

A detailed specification has been prepared by Worcestershire Archaeology (WA 2017).

Fieldwork was undertaken intermittently between 7 February and 28 February 2017 following the progress of the construction team. The site reference number and site code is WSM 68500.

A plot for a car park, amounting to just over 2125m² in area, was excavated under archaeological supervision. Following this, tree pits along the western edge of the car park were monitored. Drainage trenches were excavated into modern made ground. These were not monitored as the made ground had been previously identified and tested on the west of the development area during the excavation of and did not impact any archaeological horizons. The location of the trenches is indicated in Figure 2.

Deposits considered not to be significant were removed using a 360º 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. A metal-detector was used to scan the finished excavated ground at the base of the trench, and the spoil heaps, to retrieve artefactual material. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012).

3.5 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.

3.6 Artefact methodology, by Rob Hedge

The finds work reported here conforms with the following guidance: for findswork by CIfA (2014b), for archive creation by AAF (2011) and for museum deposition by SMA (1993).

3.6.1 Artefact recovery policy

The artefact recovery policy conformed to standard Worcestershire Archaeology practice (WA 2012; appendix 2).

3.6.2 Method of analysis

All hand-retrieved and metal-detected finds were examined. 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 a *Microsoft Access* database.

The pottery and ceramic building material was examined under x20 magnification and referenced as appropriate by fabric type and form according to the fabric reference series maintained by Worcestershire Archaeology (Hurst and Rees 1992 and www.worcestershireceramics.org).

3.6.3 Discard policy

The following categories/types of material will be discarded after a period of 6 months following the submission of this report, unless there is a specific request to retain them (and subject to the collection policy of the relevant depository):

- where unstratified
- post-medieval material, and;
- generally where material has been specifically assessed by an appropriate specialist as having no obvious grounds for retention.

See the environmental section for other discard where appropriate.

3.7 Environmental archaeology methodology

3.7.1 Sampling policy

Sampling was undertaken according to standard Worcestershire Archaeology practice (WA 2012). In the event no deposits were identified which were considered to be suitable for environmental analysis.

3.8 Statement of confidence in the methods and results

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 The application site

The site is described in the previous desk-based assessment which includes a description of the wider landscape of Hartlebury Castle set within its deer park. The topography, geology and archaeological context from the desk-based assessment, is and summarised below:

Topography and geology

The park is located within the broader Severn valley, to the east of the river. The topography consists of rolling fields either side of a stream, which flows from north to south along the western part of the park. There is a tributary to this stream that originates in the village and flows through Park Pool. These fields generally slope down towards the streams. The solid geology is made up of Bromsgrove Sandstone Formation of the Triassic period (British Geological Survey 2017). There are also narrow bands of alluvium either side of the stream.

Archaeological context

The archaeological and historical importance of the castle and park at Hartlebury has long been thought to stretch from the 9th century AD into the present day, and its association with the Bishop of Worcester has been well documented. Although nothing has yet been seen in terms of the early settlement of the site, there is considerable potential for deposits and structures associated with it in the form of buried archaeological features. The buildings have an aspect of survival from the medieval period, and features such as the moat and ponds, are likely to have their origins at this time. These were set within a well-documented park that once extended beyond the known historical bounds.

The later history of the site shows its continuing importance during times such as the Civil War, which had an impact on both the buildings and the landscape. Successive generations of bishops undertook further works on the buildings and landscape, leading to the site which is enjoyed today.

Land use

Much of the park today is used for agriculture both for pasture and arable. The pastoral land is largely to the east and south of the castle. The current development site is located to the east of Hartlebury Castle, north of an access road into the site. The site was in use as open fields under pasture within the grounds of Hartlebury Castle estate, sloping up hill to the north-west.

5 Results

5.1 Structural analysis

The areas monitored and the features recorded are shown in Figure 2, with a more detailed illustration of the track in Figure 3. The results of the structural analysis are presented in Appendix 1.

5.1.1 Phase 1: Natural deposits

The solid sandstone geology of the Bromsgrove Sandstone formation was observed in the north of the site, overlain by a compact orange sandy clay with frequent sandstone inclusions and occasional patches of red clay marl. The majority of the site only exposed the firm mid orangey brown silty sand subsoil.

5.1.2 Phase 2: Medieval deposits

A trackway (102; Plates 1-6) consisting of uniform large sandstone blocks, orientated north-west to south-east ran across the south-east part of the site. A raised area of the trackway in the southeastern area of the site measured 3.30m wide with 12m in length. The north-western edge was worn down and had been truncated by later activity to the area. Medieval pottery and ceramic building material was recovered from the surface of the trackway, with musket balls and other metal items (Fig 2) recovered from the topsoil (100) and subsoil (101) in the area of Trench 1, specifically in the southern and south-eastern areas of the car park.

5.1.3 Phase 3: Modern deposits

A service trench (107; Plates 7 and 8) for an electric cable ran along the western edge of site. This was backfilled with mixed gravel and hard-core (106) and was left unexcavated. There was also redeposited topsoil (108) and disturbed ground along the western edge of the site, formed when the existing car park to the west of the site was constructed. The site was overlaid by a modern topsoil of friable dark greyish brown sandy silt and turf (100). The tree pits were 0.50m square and a maximum of 0.70m deep, with modern topsoil, made ground observed about the natural strata.

5.2 Artefact analysis, by Rob Hedge

The artefactual assemblage recovered is summarised in Tables 1 and 2. The assemblage retrieved from the excavated area consisted largely of medieval and early post-medieval building material, with small quantities of metalwork, pottery, and animal bone. The group came from four stratified contexts and could be dated from the medieval period onwards (see Table 1). Artefact condition was generally fair, with the majority of ceramic artefacts displaying moderate levels of abrasion.

period	material class	material subtype	object specific type	count	weight (g)
medieval	ceramic		roof tile	2	120
medieval/early post-medieval	ceramic		ridge tile	5	377
medieval/early post-medieval	ceramic		roof tile	15	1,127
medieval/post-medieval	ceramic		brick	1	2,142
medieval/post-medieval	metal	copper alloy	unident	1	1
medieval/post-medieval	metal	iron	nail	1	3
medieval/post-medieval	metal	lead	?lead token	1	43
post-medieval	ceramic		pot	3	21
post-medieval	ceramic		roof tile	1	41
post-medieval	metal	lead	lead carbine shot	1	26
post-medieval	metal	lead	lead pistol shot	1	8
undated	bone	animal bone	cattle metatarsal	1	57
undated	metal	iron	unident	1	301
undated	metal	lead	lead object	1	81
undated	metal	lead	lead waste	2	49
undated	slag	slag(fe)	smithing slag	1	7
			total	38	4,404

Table 1: Quantification of the assemblage

5.2.1 Pottery

Three small, abraded fragments of typical domestic post-medieval pottery were recovered from a cleaning layer (103) and modern truncation (104). They comprised:

- A small body sherd of 17th/18th century black-glazed redware (Fabric 78);
- An unglazed, red-slipped sherd of redware (Fabric 78), possibly post-medieval flowerpot;
- A highly abraded fragment of 18th century buffware.

5.2.2 Ceramic Building Material

All pieces have been grouped and quantified according to fabric type (Table 2). Few diagnostic form fragments were present and could be dated accordingly; the majority were, therefore, only 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 (Fagan 2004).

period	object specific type	origin	fabric number	count	weight(g)
medieval	roof tile	Worcester	2a	1	90
medieval	roof tile	Worcester	2b	1	30
medieval/early post-medieval	roof tile	Worcester	2c	1	40
medieval/early post-medieval	ridge tile	Malvernian	3	5	377
medieval/early post-medieval	roof tile	Malvernian	3	8	226
medieval/post-medieval	brick	?local	unident	1	2,142
medieval/early post-medieval	roof tile	?local	unident	3	653
medieval/early post-medieval	roof tile	unknown	unident	3	208
post-medieval	roof tile	unknown	unident	1	41
			total	24	3,807

Table 2: Quantification of the ceramic building material by period and fabric type

Medieval

Several small abraded fragments of 13th to 15th century sandy roof tile of Worcester manufacture (Fabrics 2a and 2b: Fagan 2004) were recovered from cleaning layer 103.

Medieval/early post-medieval

Worcester-type

A single fragment of Worcester-type Fabric 2c, with distinctive clay pellet/grog inclusions, is characteristic of late 15th to 17th century manufacture.

Malvernian

Malvernian (Fabric 3) tiles were well-represented, with 8 flat fragments and 5 pieces of curved ridge tile. The majority bore traces of glaze, which was noticeably more systematically applied on the curved elements. It was not possible to determine whether the flat elements represented fragments of flat roof tiles or the margins of curved ridge tiles, although given their narrow and consistent thickness, and the scarcity of Malvernian flat tile in comparable assemblages (eg Deansway, Fagan 2004, 360), it is likely that all the Malvernian fragments are all pieces of ridge tile.

All were within a range of 7.9mm (5/16") and 11.1mm (7/16") in thickness, which is extremely thin for roof tiles of this date. A distinctive lip along the edges, and the absence of a sanded underside, suggests that they were mould-made, then draped over a former to achieve the desired curve.

Although Malvernian ridge tiles are known from the 13th century onwards, their distribution appears to expand substantially in the late 15th to early 17th centuries. Tiles of similar thickness were noted within an assemblage of this date associated with a kiln at Brickwalls Farm, Hanley Swan (Hurst 2008). Glazed ridge tiles of this type are very liable to signify a high-status building, and so seem entirely appropriate in this context.

Other

Another tile fabric type exhibited a tendency to break in a laminar fashion along the body of the tile (as with Worcester type 2c tiles), and contains abundant <1mm sub-rounded white and grey quartz with a sanded base. However, it lacked the distinctive clay pellet/grog inclusions of the late medieval Worcester-made tiles. Instead it contains small sub-rounded fragments of ironstone, similar in that respect to the 16th-18th century Fabric 5 tiles identified at Hallow (Griffin *et al* 2004) and other sites on the west side of Worcester. This is considered most likely to be of local

manufacture, and may even have been fired on site, given the scale and significance of the castle in the late medieval/early post-medieval period (D Hurst, pers comm). A number of other unglazed flat tiles could not be confidently ascribed to known fabrics.

Post-medieval

A single piece of hard-fired flat roof tile likely to be 17th or 18th century in date was recovered from cleaning layer 103.

A fragment of a large brick within deposit 104 is worthy of note: although the length cannot be ascertained, at 5½" it is of exceptional width, sometimes thought to indicate an early date (Lloyd 1925). The thickness (2¾"), however, is more consistent with a post-medieval date, but the possibility that this represents relatively early brick production cannot be discounted.

5.2.3 Metal finds (by Rob Hedge and Richard Bradley)

A scan of exposed surfaces and spoil heaps using a metal-detector yielded a number of lead, iron and copper alloy artefacts. An iron nail and copper alloy fitting were not diagnostic but are considered medieval to post-medieval in date. Of particular interest were the lead finds, including a sub-circular piece 32.6mm in diameter, with a flat base and convex upper surface (SF5; Plate 13), recovered from topsoil (100). The upper surface features an abraded pattern, in relief, of 12 evenly-spaced dots around an image resembling a bushel. Although the object's appearance suggests that it may have been a weight, at 43g it does not readily conform to known historical systems of weights and measures. It appears too large and crude to be a medieval seal matrix. The symbology may provide a clue: numeric values including 12 and symbols representing bushels/heads of wheat are features sometimes found on agricultural 'hop tokens' of 17th to 19th century date (Powell nd), commonly found in the east of England.

Several pieces of lead shot were also recovered, for which Richard Bradley provided the following comments:

- SF1 is 12.40mm maximum diameter and weighs 8.295g. This calibre equates to around 53-54 bore (bullets per pound of lead) which lies towards the smaller end of the pistol ball range but is still comparable with assemblages from 17th century siege or battlefield sites. There is a visible protrusion on the moulding line (were the ball was formed from two halves) and there is an indent where the casting sprue has been 'nipped' off. It has clearly been fired and been subject to impact damage as one side is flattened.
- SF3 is probably a carbine (shorter firearm used by dragoons) or arquebus (outdated in the 17th century but still used) ball, or perhaps has been used in case shot. Distortion precludes a diameter measurement, but it has a mass of 26g equating to a bore of around 17. This is too small for a 17th century musket ball (normally 31-41g, bore 11-14) and fits an awkward range in battlefield assemblages. The heavy distortion is due to firing and impact and this may have affected the amount of surviving lead, which in turn has affected the bore calculation. Although such distortion is a feature of case shot, it is considered on the small side for use by artillery. It is more likely to be a carbine ball.

The presence of carbine and pistol shot, if pertaining to military activity, suggests the presence of cavalry troops. The nature of the projectiles is consistent with a 17th century date. It is, therefore, possible that they pertain to the Civil War siege, but a later and/or civilian origin cannot be ruled out. Although the castle is documented as having been surrendered without a shot (Cornah and Robson-Glyde 2014, 14), both projectiles show clear signs of discharge and impact.

5.2.4 Other artefacts

A small quantity of animal bone and iron-smithing slag were also recovered from deposits 103 and 104 respectively.

5.2.5 Site dating

context	material class	material subtype	object specific type	count	weight(g)	start date	end date	TPQ date range
	metal	lead	lead carbine shot	1	26	1600	1700	
	metal	lead	lead waste	1	20			
100	metal	lead	lead waste	1	29			1600-1900
	metal	lead	lead object	1	81			
	metal	lead	?lead token	1	43	1600	1900	
	metal	lead	lead pistol shot	1	8	1600	1700	
101	metal	iron	nail	1	3	1066	1800	1600-1900
	metal	copper alloy	unident	1	1	1066	1900	
	ceramic		pot	1	16	1600	1800	
	ceramic		pot	1	2	1700	1800	
	bone	animal bone	cattle metatarsal	1	57			
	ceramic		roof tile	1	41	1600	1800	
	ceramic		roof tile	1	90	1200	1500	
103	ceramic		roof tile	1	95	1200	1700	1700-1800
	ceramic		roof tile	1	73	1200	1700	
	ceramic		roof tile	3	653	1200	1700	
	ceramic		roof tile	1	40	1475	1700	
	ceramic		roof tile	8	226	1200	1700	
	ceramic		ridge tile	5	377	1200	1700	
	ceramic		roof tile	1	30	1200	1500	
	slag	slag(fe)	smithing slag	1	7			
	metal	iron	unident	1	301			
104	ceramic		roof tile	1	40	1200	1700	1600-1800
	ceramic		pot	1	3	1600	1800	
	ceramic		brick	1	2,142	1200	1800	

Table 3 Summary of context dating based on artefacts

5.3 Artefactual assemblage discussion

With a few isolated exceptions, the bulk of the assemblage (particularly the building material) is 13th to early 17th century in date, and is, therefore, thought likely to be material discarded during the extensive remodelling of the castle that took place in the late 17th century following a period of post-Civil War decay.

5.4 Further analysis and reporting

The following recommendation is made for consideration when designing any further archaeological project for this site:

- Further efforts to recover any associated metal small finds, to address the question of whether Civil War military activity can be better understood.

No further work on the artefacts considered as part of this report is required.

5.5 Discard and retention

Given that the assemblage contains interesting elements including some building materials that cannot be readily identified to known fabrics, and taking into consideration the significance of the site, it is recommended that these components of the assemblage be retained, although the final decision rests with Museums Worcestershire's receiving curator.

6 Synthesis

The sandstone surface was not recorded during the geophysical survey associated with the works. However it is visible on the 1888 Ordnance Survey, with an avenue of trees in the area (Fig 4) which is also on the later Ordnance Survey of 1902-3 and 1927. It is also visible as a feature on a recent LiDar survey of the area (Figure 5). The finds recovered during the cleaning of the surface suggest an earlier origin of the trackway and the works demonstrated activity on site from the Civil War period, including lead projectiles. The presence of high-quality glazed Malvernian ridge tiles is consistent with the status of the castle in the late medieval/early post-medieval period. Of interest is the presence of tiles which may be of local manufacture. Lead projectiles showing evidence of discharge and impact raise questions over the veracity of the account that the Civil War siege ended without a shot being fired.

Modern truncations in the west of the site from existing car parking, landscaping and modern services for Hartlebury Castle had disturbed any earlier activity in this area.

6.1 Research frameworks

The English Civil War forms an important part of the history of the West Midlands, and there is an account of a minor action at Hartlebury. The existence of the documentary account increases the significance of any archaeologically derived evidence, and this project has demonstrated the presence of shot which is likely to date from this period and the potential for archaeological work to provide independent evidence of the action.

7 Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology 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.

An archaeological watching brief was undertaken at Hartlebury Castle, Hartlebury, Worcestershire (NGR SO 8363 7124). It was undertaken for Ryder Landscape Consultants on behalf of the Hartlebury Castle Preservation Trust, who proposed construction of two car parks (one an overflow car park and another an additional car park), together with associated tracks and drainage.

In the south-west of the site a trackway consisting of worn, crushed and worked sandstone blocks was discovered, within a subsoil matrix. This was orientated north-west to south-east, was 3.30m wide and had a raised area 12m long at its south-western limit. A number of medieval ceramic finds were recovered from the surface of the structure after cleaning and small finds such as lead and copper alloy items were recovered from the topsoil and subsoil in the area of the car park. The presence of high-quality glazed Malvernian ridge tiles is consistent with the status of the castle in the late medieval/early post-medieval period. Of interest is the presence of tiles which may be of local manufacture. Lead projectiles showing evidence of discharge and impact raise questions over the veracity of the account that the Civil War siege ended without a shot being fired. The north-western section of the trackway had been truncated by later activity in the area or had worn away.

The trackway was not recorded on the recent geophysical survey, although it is evident as a landscape feature on the recent Lidar survey and is recorded on the 1888 1st edition Ordnance Survey and later editions as an avenue of trees on the same alignment. The medieval and post-medieval finds from the structure and surrounding area suggest an earlier origin of the trackway, providing access between the castle and the surrounding parkland.

8 Acknowledgements

Worcestershire Archaeology would like to thank the following for their kind assistance in the successful conclusion of this project, Stuart Ryder, Ryder Landscape Consultants; Peter White, Project Manager for The Hartlebury Castle Preservation Trust, Kim Leadon, Project Manager, Walsh Construction; Adrian Scruby, Historic Environment Advisor, Worcestershire County Council Advisory Service.

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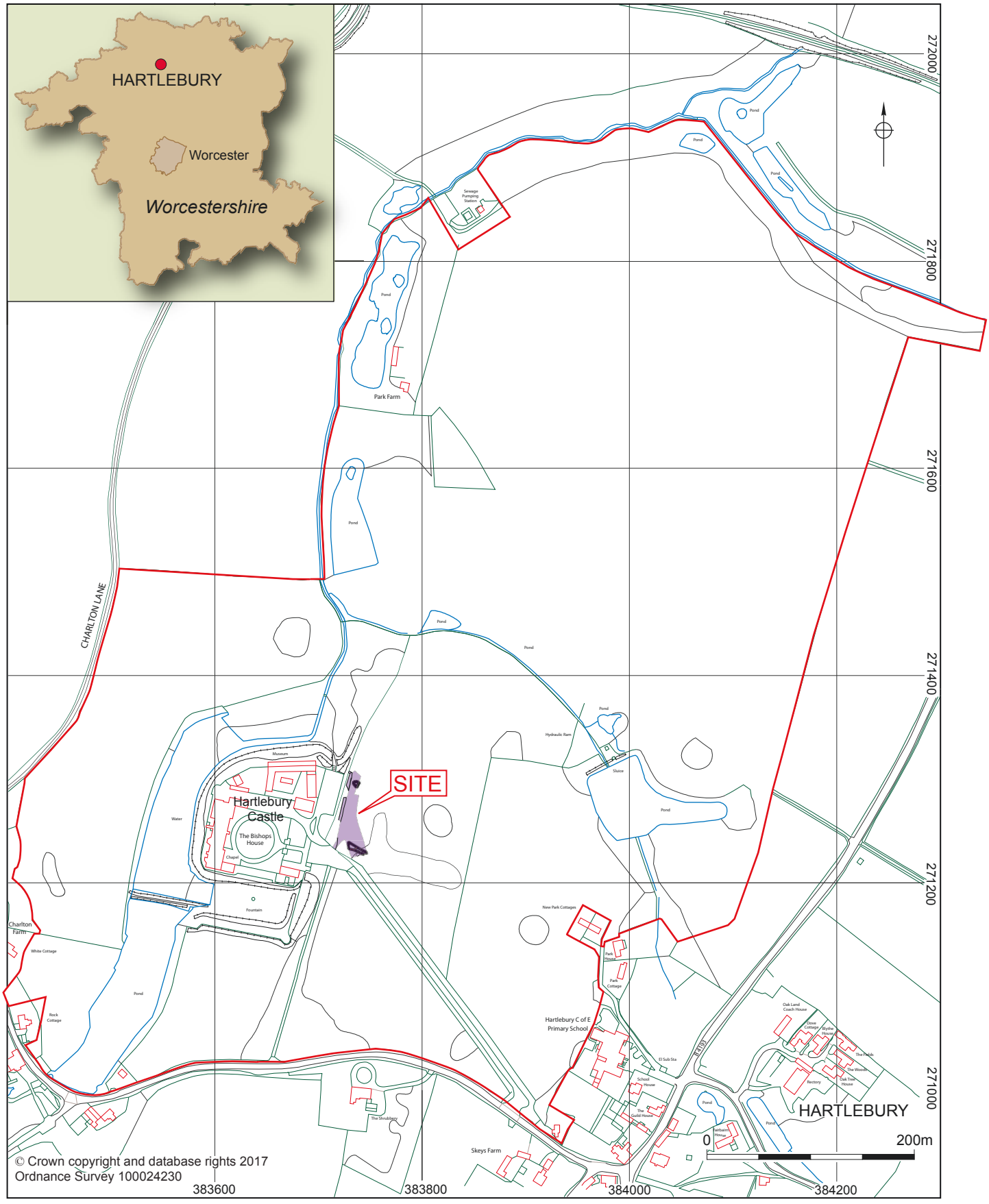
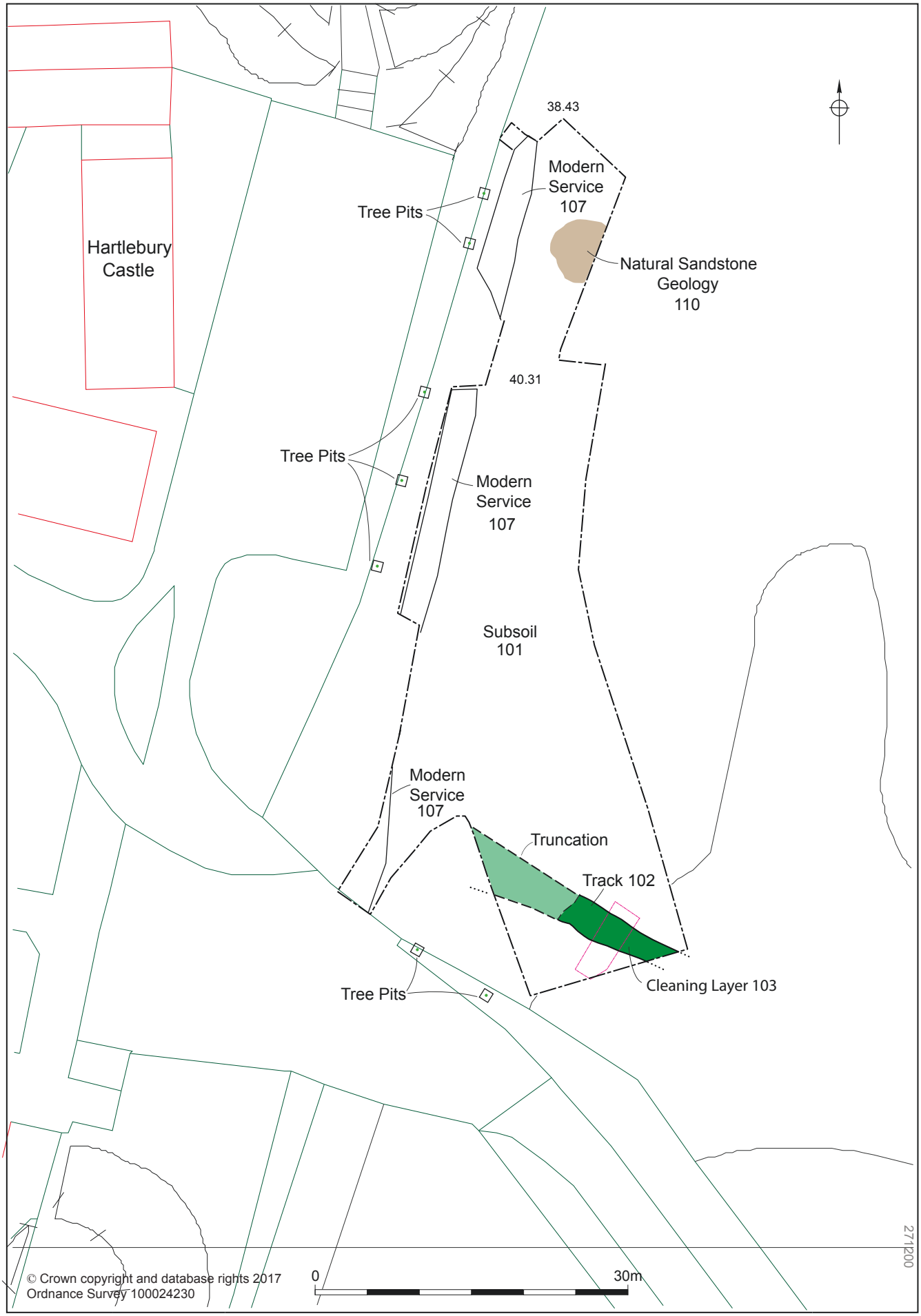
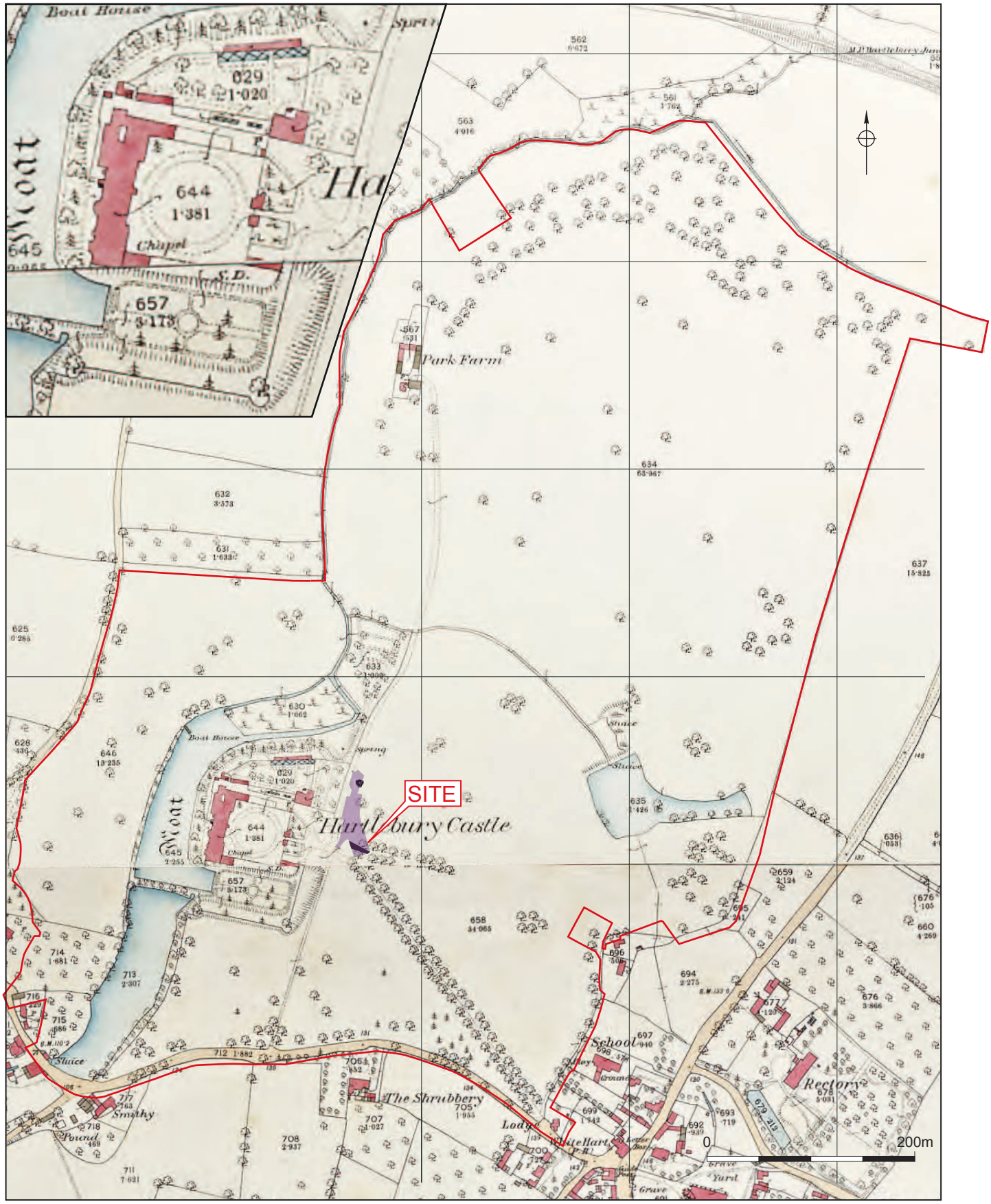
Figures



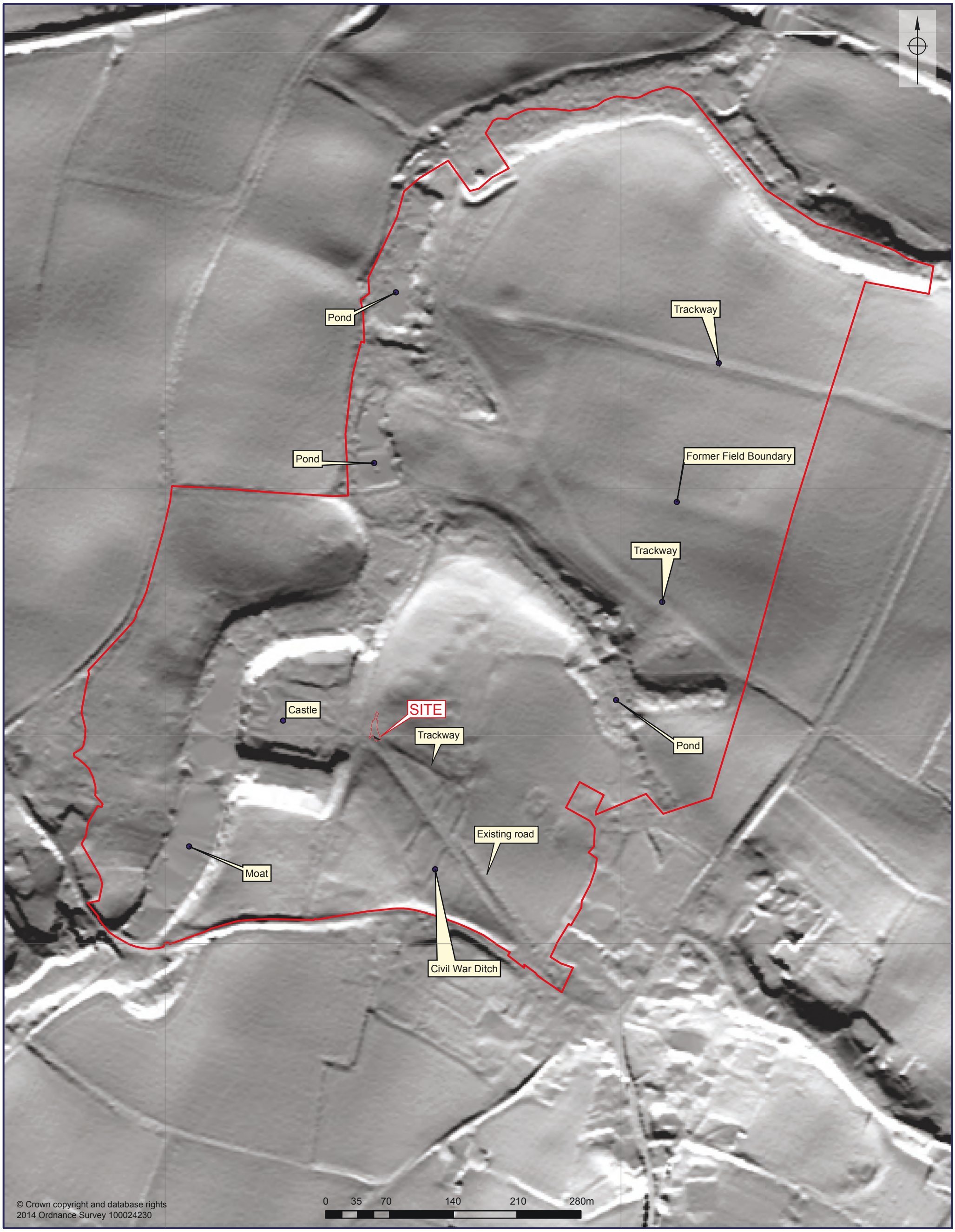
Location of the site *Figure 1*



Location of the trackway and other features *Figure 2*



1888 Ordnance Survey Map *Figure 3*



Annotated LiDAR data

Figure 4

Plates

Plate 1 The car park stripped to subsoil depth. View north. 2 x 1m scales.

Plate 2 Sandstone surface trackway 102, view north-east. 2 x 1m scales.

Plate 3 Sandstone surface trackway 102, view south-west. 2 x 1m scales.

Plate 4 Sondage through section of surface 102 at centre of trackway. View south-west. 2 x 1m scales.

Plate 5 Close up of cleaned area of sandstone and subsoil trackway 102. View south-east. 2x1m scales.

Plate 6 Close up of cleaned area of sandstone and subsoil trackway 102. View south-east. 2x1m scales.

Plate 7 Modern truncation of electricity service trench backfill, at western limit of car park. View south, 2 x1m scales.

Plate 8 Entrance into car park stripped showing modern truncation of service trench backfill and made ground. View north. 2 x 1m scales.

Plate 9 The northern part of the site onto solid sandstone geology and natural reddish orange clayey sand and marl. View south. 2 x 1m scales.

Plate 10 The northern part of the site after stripping under pylon. View south. 2 x 1m scales.

Plate 11 Example of tree pit excavated. 0.5m scale

Plate 12 The tree pits following excavation from the north-west end of the site. View south-east. 0.5m scale.

Plate 13: SF5: Lead token, possibly agricultural 'hop token'.

Appendix 1 Trench descriptions

Car park site works – main deposit description

Car park maximum dimensions: Length: 85m Width: 25m Depth: 0.20 – 0.35m

Tree pits: Length: 0.50m Width: 0.50m Depth: 0.40 – 0.70m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
100	Topsoil	Friable dark greyish brown sandy silt with turf mat.	0.00 – 0.24m
101	Subsoil	Firm mid orangey brown silty sand with occasional charcoal flecking, broken sandstone pieces and pebbles. Occasional orangey red clay marl	0.24 – 0.30m
102	Surface / trackway	Surface made up of largely crushed sandstone, with some larger sandstone blocks. Trackway measuring 3.30m wide and 12.00m raised sandstone surface. On NW – Se orientation.	0.24 – 0.34m
103	Cleaning layer	Number assigned to cleaning of surface for finds retrieval including ceramics, cbm and animal bone	N/A
104	Modern truncation	Brick, charcoal and tarmac truncation to trackway	Unexc.
105	Cut of modern truncation to trackway	1m wide truncation to trackway.	Unexc
106	Service trench fill	Modern backfill of electric cable service trench, consisting of gravesl, tarmac, hardcore, slag and metalwork	Unexc.
107	Cut of service trench	2.50m wide oriented North- South along western edge of site.	Unexc.
108	Layer	Redeposited topsoil along NW edge of site – Service trench and existing car park landscaping works	0.00 – 0.30m
109	Natural	Firm reddish orange clayey sand with frequent sandstone inclusions and occasional patches of compact clay marl	0.34m+
110	Natural solid geology	Solid sandstone geology observed in northeast corner of site.	0.20m +

Appendix 2 Technical information

The archive (site code: WSM 68500)

The archive consists of:

1	Field progress reports AS2
2	Photographic records AS3
100	Digital photographs
1	Drawing number catalogues AS4
1	Scale drawings
1	Recorded finds records AS13
3	Trench record sheets AS41
1	Box of finds
1	CD-Rom/DVDs
1	Copy of this report (bound hard copy)

The project archive is intended to be placed at:

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

Summary of data for Worcestershire HER

WSM 68500 (event HER number)

P4695

Artefacts

period	material class	object specific type	start date	end date	count	weight(g)	specialist report? (note 2)	key assemblage (note 3)
medieval	ceramic	roof tile	1200	1500	1	90	Y	N
medieval	ceramic	roof tile	1200	1500	1	30	Y	N
medieval/early post-medieval	ceramic	ridge tile	1200	1700	5	377	Y	Y
medieval/early post-medieval	ceramic	roof tile	1200	1700	8	226	Y	Y
medieval/early post-medieval	ceramic	roof tile	1200	1700	3	653	Y	Y
medieval/early post-medieval	ceramic	roof tile	1200	1700	1	73	Y	N
medieval/early post-medieval	ceramic	roof tile	1475	1700	1	40	Y	N
medieval/early post-medieval	ceramic	roof tile	1200	1700	1	95	Y	N
medieval/early post-medieval	ceramic	roof tile	1200	1700	1	40	Y	N
medieval/post-medieval	ceramic	brick	1200	1800	1	2142	Y	N
medieval/post-medieval	metal	?seal	1600	1900	1	43	Y	N
medieval/post-medieval	metal	nail	1066	1800	1	3	Y	N
medieval/post-medieval	metal	unident	1066	1900	1	1	Y	N
post-medieval	ceramic	pot	1700	1800	1	2	Y	N
post-medieval	ceramic	pot	1600	1800	1	16	Y	N
post-medieval	ceramic	roof tile	1600	1800	1	41	Y	N
post-medieval	metal	lead carbine shot	1600	1700	1	26	Y	N
post-medieval	metal	lead pistol shot	1600	1700	1	8.3	Y	N
undated	bone	cattle metatarsal			1	57	Y	N
undated	metal	lead object			1	81	Y	N
undated	metal	lead waste			1	20	Y	N
undated	metal	lead waste			1	29	Y	N
undated	metal	unident			1	301	Y	N
undated	slag	smithing slag			1	7	Y	N

Notes

1) In some cases the date will be "Undated". In most cases, especially if there is not a specialist report, the information entered in the Date field will be a general period such as Neolithic, Roman, medieval etc (see below for a list of periods used in the Worcestershire HER). Very broad date ranges such as late Medieval to Post-medieval

are acceptable for artefacts which can be hard to date for example roof tiles. If you have more specific dates, such as 13th to 14th century, please use these instead. Specific date ranges which cross general period boundaries can also be used, for example 15th to 17th century.

period	from	to
Palaeolithic	500000 BC	10001 BC
Mesolithic	10000 BC	4001 BC
Neolithic	4000 BC	2351 BC
Bronze Age	2350 BC	801 BC
Iron Age	800 BC	42 AD
Roman	43	409
Post-Roman	410	1065
Medieval	1066	1539
Post-medieval	1540	1900
Modern	1901	2050

period specific	from	to
Lower Palaeolithic	500000 BC	150001
Middle Palaeolithic	150000	40001
Upper Palaeolithic	40000	10001
Early Mesolithic	10000	7001
Late Mesolithic	7000	4001
Early Neolithic	4000	3501
Middle Neolithic	3500	2701
Late Neolithic	2700	2351
Early Bronze Age	2350	1601
Middle Bronze Age	1600	1001
Late Bronze Age	1000	801
Early Iron Age	800	401
Middle Iron Age	400	101
Late Iron Age	100 BC	42 AD
Roman 1st century AD	43	100
2nd century	101	200
3rd century	201	300
4th century	301	400
Roman 5th century	401	410
Post roman	411	849
Pre conquest	850	1065
Late 11th century	1066	1100
12th century	1101	1200
13th century	1201	1300
14th century	1301	1400
15th century	1401	1500
16th century	1501	1600
17th century	1601	1700
18th century	1701	1800
19th century	1801	1900
20th century	1901	2000
21st century	2001	

2. Not all evaluations of small excavation assemblages have specialist reports on all classes of objects. An identification (e.g. clay pipe) and a quantification is not a specialist report. A short discussion or a more detailed record identifying types and dates is a specialist report. This field is designed to point researchers to reports where they will find out more than merely the presence or absence of material of a particular type and date.

3. This field should be used with care. It is designed to point researchers to reports where they will be able to locate the most important assemblages for any given material for any given date.