

WSHH/05



LAND BETWEEN WEST STREET, AUBREY STREET, BERRINGTON STREET AND LITTLE BERRINGTON STREET, HEREFORD

Archaeological Evaluation

commissioned by Hook Mason Ltd
on behalf of Provincial House (Sheffield) Ltd

March 2015

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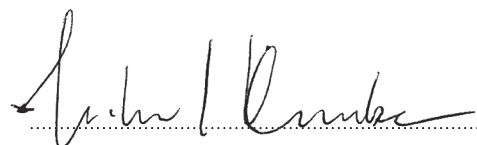
March 2015

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project team

PROJECT MANAGER Mike Kimber
AUTHOR Luke Craddock-Bennett
FIELDWORK Luke Craddock-Bennett, Sam Thomas
GRAPHICS Caroline Norrman, Julia Bastek-Michalska
SPECIALISTS Laura Bailey – Environmental
Julie Franklin, Stephanie Ratkai – Finds
APPROVED BY Mike Kimber – Project Manager



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MIDLANDS & WEST

Headland Archaeology
Unit 1, Premier Business Park, Faraday Road
Hereford HR4 9NZ

01432 364 901
midlandsandwest@headlandarchaeology.com

www.headlandarchaeology.com





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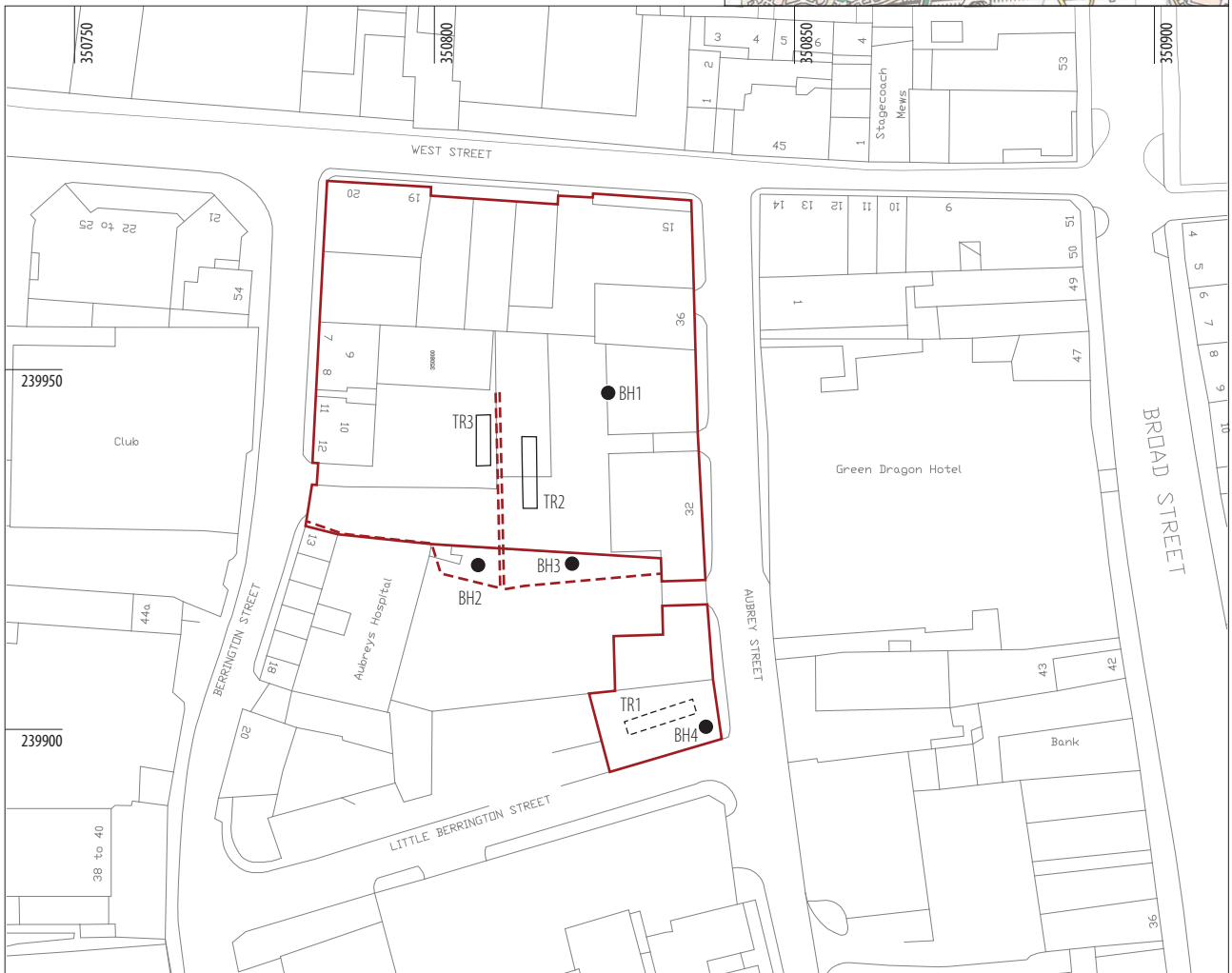
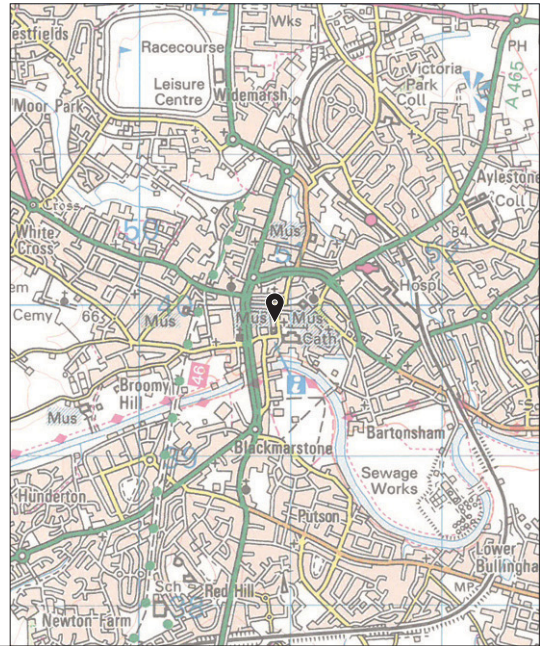
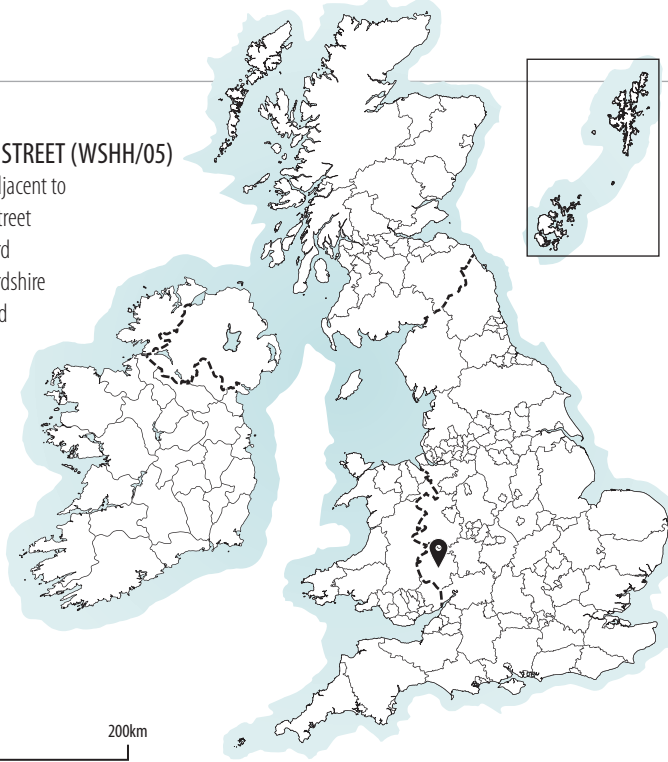
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WEST STREET (WSHH/05)

land adjacent to
West Street
Hereford
Herefordshire
England

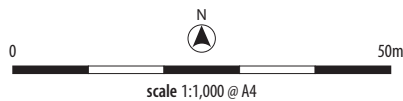


KEY

- development boundary
- trench location
- existing boundaries
- proposed trench location
- bore hole location

ILLUS 1

Site location



MIDLANDS & WEST

Unit 1, Premier Business Park
Faraday Road
Hereford HR4 9NZ
01432 364 901
www.headlandarchaeology.com

LAND BETWEEN WEST STREET, AUBREY STREET, BERRINGTON STREET AND LITTLE BERRINGTON STREET, HEREFORD

Archaeological Evaluation

Headland Archaeology (UK) Ltd undertook a program of borehole investigation and trial trenching in order to evaluate the archaeological resource at a proposed development site to the south of West Street, Hereford. The site is located within the former core of the Saxon city, immediately to the south of its northern defensive rampart. The evaluation identified the presence of a number of medieval pit features of 13th century or later date measuring in excess of 2m in depth. A borehole excavated in the centre-east part of the site identified the presence of a gravel and waterlogged silt deposit which may relate to an ancient bog identified during previous excavations in the vicinity of the site. The remains of a stone cellar backfilled in the nineteenth century were identified in the centre-west of the site. No remains of Saxon or earlier date were found.

1 INTRODUCTION

1.1 PLANNING BACKGROUND AND OBJECTIVES

This report presents the results of an archaeological field evaluation on land to the south of West Street, Hereford. The archaeological works, commissioned by Hook Mason Ltd on behalf of Provincial House (Sheffield) Ltd relate to the forthcoming submission of a planning application for the proposed mixed use development of the site.

It was agreed with the archaeological advisor to Herefordshire County Council, Mr. Julian Cotton, that the site had the potential to include heritage assets of archaeological interest. In accordance with relevant policy and best practice, the archaeological advisor requested that a field evaluation be undertaken in order to provide sufficient information to allow the consideration of the planning application.

Headland Archaeology (UK) Ltd undertook the required works in accordance with a Project Design agreed with the archaeological advisor (Craddock-Bennett 2014).

1.2 SITE LOCATION, DESCRIPTION AND SETTING

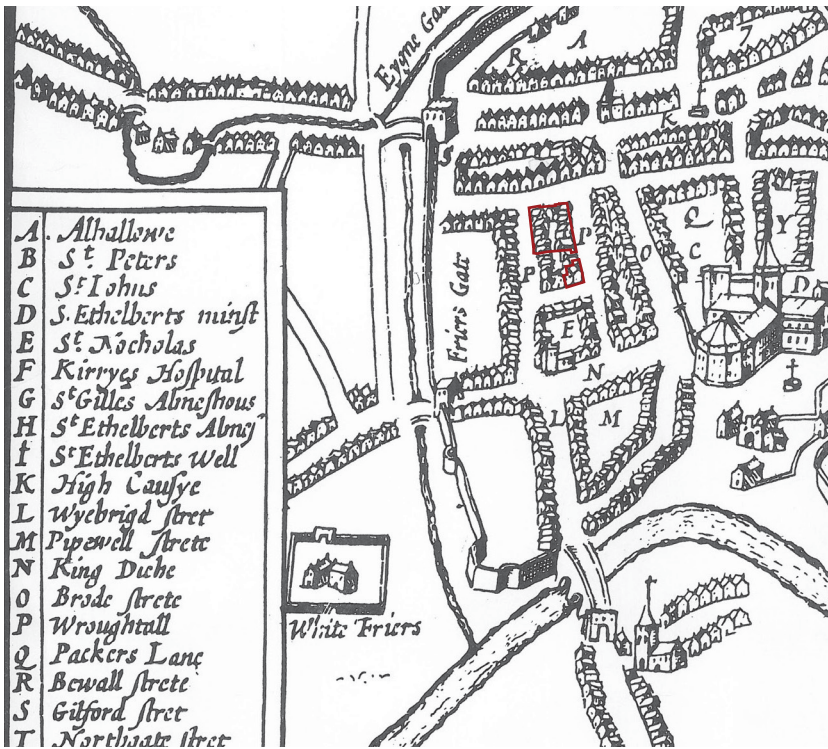
The proposed development site (**Illus 1**) comprises an area of land located at NGR 350812, 239934 (site centre). The total development site occupies a development block measuring approximately 0.3ha within the centre of the City of Hereford.

The site is bound to the east by Aubrey Street, to the south by Little Berrington Street, to the west by Berrington Street and to the north by West Street.

The site is terraced, with the western half of the site (upper car park) being approximately 0.7m higher than the east of the site (lower car park).

Extant buildings occupy the periphery of the site in all directions. The current investigative works were undertaken within car parking areas covering the central part and the extreme south of the proposed development area.

The underlying geology of the site is recorded as Raglan Mudstone Formation overlain by Glaciofluvial Sheet deposits of sand and gravel (BGS 2014).



ILLUS 2

John Speede's map of 1610 showing 'Wroughtall'

to postulate the continuation of this line southwards across King Street. Based on these observations, Watkins suggested a King's Ditch enclosure bounded to the west by the ditch near Aubrey Street, to the north by the line of the Saxon defences and to the east by another postulated ditch.

The excavation of a trench on the western line of the King's Ditch in Aubrey Street (immediately to the east of the development site) demonstrated that the ditch might lie on the eastern side of a boggy channel. Further south and to the east of Bridge Street, a marshy area was identified on the same alignment (Heys & Norwood 1958).

Medieval

The documented built history of the site can be traced back to the mid-13th century. The proposed development area was once called Wroughthall, as indicated on John Speede's map of the city dated 1610 (Illus 2). It has been suggested that Wroughthall House, after which the area appears to have been named, was formerly a priory, however no evidence to support this claim has been found (Collins 1915, p.78).

1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Saxon

The development site is located in close proximity to the earliest evidence for Saxon occupation in Hereford.

The current model for the development of Hereford begins in the early 8th century with the discovery of two grain drying ovens discovered during excavations on Victoria Street (approximately 80m to the west of the proposed development). Contemporary burial evidence has been identified on Castle Green. It is suggested that Hereford was an undefended settlement at that time, focussed on a single ford across the River Wye just below the present Bishop's Palace. A natural watercourse and associated marsh occupied the area in the vicinity of the proposed development.

Archaeological evidence for late 8th century activity comprises a north-south road line and associated post-built buildings, sealed beneath the early defences near Berrington Street. There was also evidence for at least one building fronting onto Berrington Street. This evidence, combined with the topology of Berrington Street, Aubrey Street, Broad Street, Church Street and St. John's Street led to the suggestion that a framework of parallel roads may have been laid out at this time. The area remained undefended although at Victoria Street a possible boundary ditch could have been a precursor for the defensive line.

Early archaeological observations undertaken by Alfred Watkins in the 1920s identified the northern defensive line of the Saxon town (West Street/East Street). Further small-scale excavations established the line of a further ditch running due south from the northern line, parallel to and east of Aubrey Street. Subsidence, an early road name – King's Ditch - and a dip in the road, provided the evidence needed

Post-medieval

The property of Wroughthall, together with an orchard and several adjoining houses, was purchased in 1630 by Mrs. Mary Price. In her will of 1637 she left the sum of £200 for building six houses or tenements for poor or single women, while Wroughthall house and the rest of the property was bequeathed as an endowment for the almshouses. The properties were duly built and survive today as the Aubrey Almshouses adjacent to the western edge of the proposed development area.

Although Isaac Taylor's 1757 map of Hereford shows development on the road frontages of the proposed development site, the interior appears to have remained undeveloped. Likewise, Curley's 1858 survey of the city shows plot divisions within the development area, but there is no indication of substantial buildings within the site.

In 1836 the land previously belonging to Mary Price was sold off and it appears that the majority of the land was purchased by the Green Dragon Posting Co. and used as stabling for horses. On Aubrey Street, the stabling, which was divided into two yards, was subsequently used as a garage. The garage premises closed in 1968 and the property reverted to the ownership of the Green Dragon.

The south-eastern corner of the proposed development area, at the junction of Little Berrington Street and Aubrey Street, has been occupied by buildings since the drafting of Speede's map of 1610,

ILLUS 3
Excavation of Borehole 1

up until the mid-20th century. Kelly's Directory of 1905 records the corner plot as being occupied by the Plough Inn, which is recorded as being a cellared, timber-framed building. The Inn was closed as a public house in 1937 and was used as part of a food retail business until it was demolished in the early 1950s.

2 AIMS AND OBJECTIVES

The purpose of the evaluation was to assess the extent, nature and importance of any buried heritage assets within the proposed development area.

Specifically the evaluation aimed to:

- provide sufficient information on the archaeological potential of the site to enable the archaeological implications of any proposed development to be assessed;
- assess the impact of previous land use on the site;
- produce a site archive for deposition with Hereford Museum and to provide information for accession to the Herefordshire Historic Environment Record.



3 METHOD

The fieldwork was conducted in accordance with the following documents:

- *Code of Conduct* (Institute of Field Archaeologists, 2000)
- *Standards and Guidance for Archaeological Field Evaluations* (Institute of Field Archaeologists, 2001)

The evaluation comprised the excavation of four boreholes and two trial trenches.

3.1 BOREHOLES

Four boreholes were excavated using a terrier rig supplied and operated by a geotechnical sub-contractor (Illus 3). The excavation of the boreholes was monitored by a suitably qualified archaeologist. Deposit cores were recovered in clear plastic sleeves and recorded on site by the attending archaeologist. Borehole log sheets detailing the stratigraphic sequence of deposits were completed on site. Boring continued until the presence of geological deposits had been established. Deposit cores were disposed of once suitable records had been made.

Boreholes were excavated on 18th November 2014.

3.2 TRIAL TRENCHES

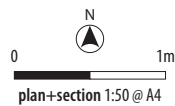
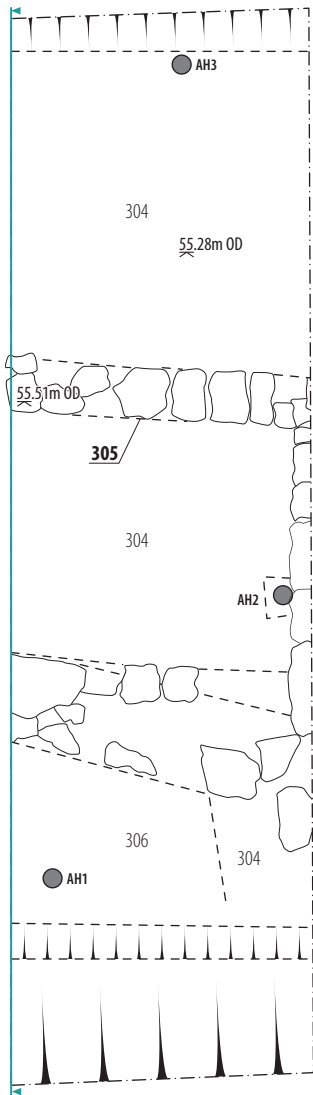
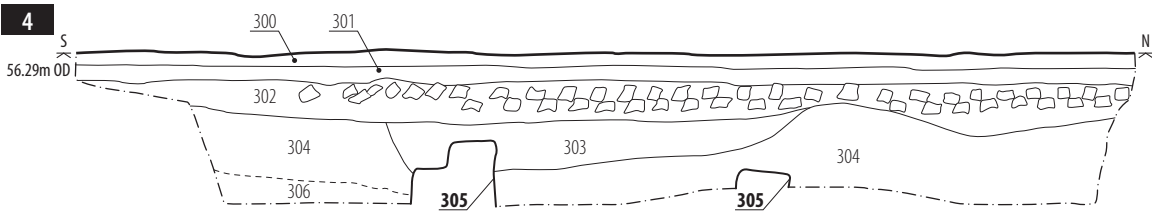
It was originally intended to excavate three trial trenches within the proposed development area, however, the borehole excavated at the corner of Little Berrington Street demonstrated modern disturbance to the top of the geological horizon. Following discussions with the archaeological advisor it was determined that it was no longer necessary to excavate Trench 1.

Two evaluation trenches were excavated during the week commencing 24th November 2014.

Trench 2 was located in the lower (eastern) car park and measured 10m x 2m

Trench 3 was located in the upper (western) car park and measured 7m x 2m

Tarmac was cut out from the trench positions by the groundworks sub-contractor. Excavation was undertaken using a tracked mechanical excavator fitted with a toothless ditching bucket. Trenches were excavated under archaeological supervision, with made ground and overburden being removed by machine and excavation terminating at the uppermost significant archaeological horizon or at a depth of 1m below ground level.



The stratigraphic sequence was recorded in full in each of the trenches.

All recording followed standard archaeological guidelines as set out by the Chartered Institute for Archaeologists (CIfA). The recorded contexts were assigned unique numbers and recording was undertaken on Headland Archaeology (UK) Ltd pro forma trench and context record sheets. Digital photographic images, colour slide and black and white photographs were taken of all trenches with a graduated metric scale clearly visible. Sections and plans of all trenches and features were hand drawn at an appropriate scale. Digital surveying was undertaken using a Trimble dGPS system.

ILLUS 4

Trench 3 – Post-excavation plan and sections

ILLUS 5

Trench 3 – E facing section and Auger Hole 1



ILLUS 6

Structure [305] – W facing elevation



ILLUS 7

Auger Hole 2 adjacent to Structure [305]

4 RESULTS

Full context descriptions are provided in Appendix 1. The following results section summarises the results of the finds (Appendix 2) and environmental (Appendix 3) assessments.

4.1 THE UPPER CAR PARK

Both Borehole 2 and Trench 3 recorded a significant deposit of made ground overlying potentially medieval deposits within the upper car park.

Borehole 2

Glaciofluvial gravel deposits [2004] were identified at a depth of 1.20m below ground level (BGL). Overlying the gravels at a depth of between 1.00mBGL and 1.20mBGL was a deposit of mid brown clayey silt [2003] containing frequent charcoal inclusions. Deposit [2003] was subsequently overlain by a dark brown clayey silt [2002] identified between the depths of 0.63m BGL and 1.00mBGL. Frequent charcoal inclusions and a sherd of post-medieval stoneware pottery were identified within this deposit which was sealed by an apparent demolition layer [2001] comprised of red brick rubble.

Trench 3 (Illus 4)

Geological deposits were not identified within Trench 3. A deposit of mid brown silty clay [306] was identified in the south-western corner of the trench at a depth of 0.70mBGL. The excavation of a small test pit in the upper reaches of the deposit identified a limited amount of medieval pottery along with fragmented animal bone and a single charred oat grain. A hand auger was used to establish that the deposit continued to a depth of at least 2.20mBGL (Illus 5).

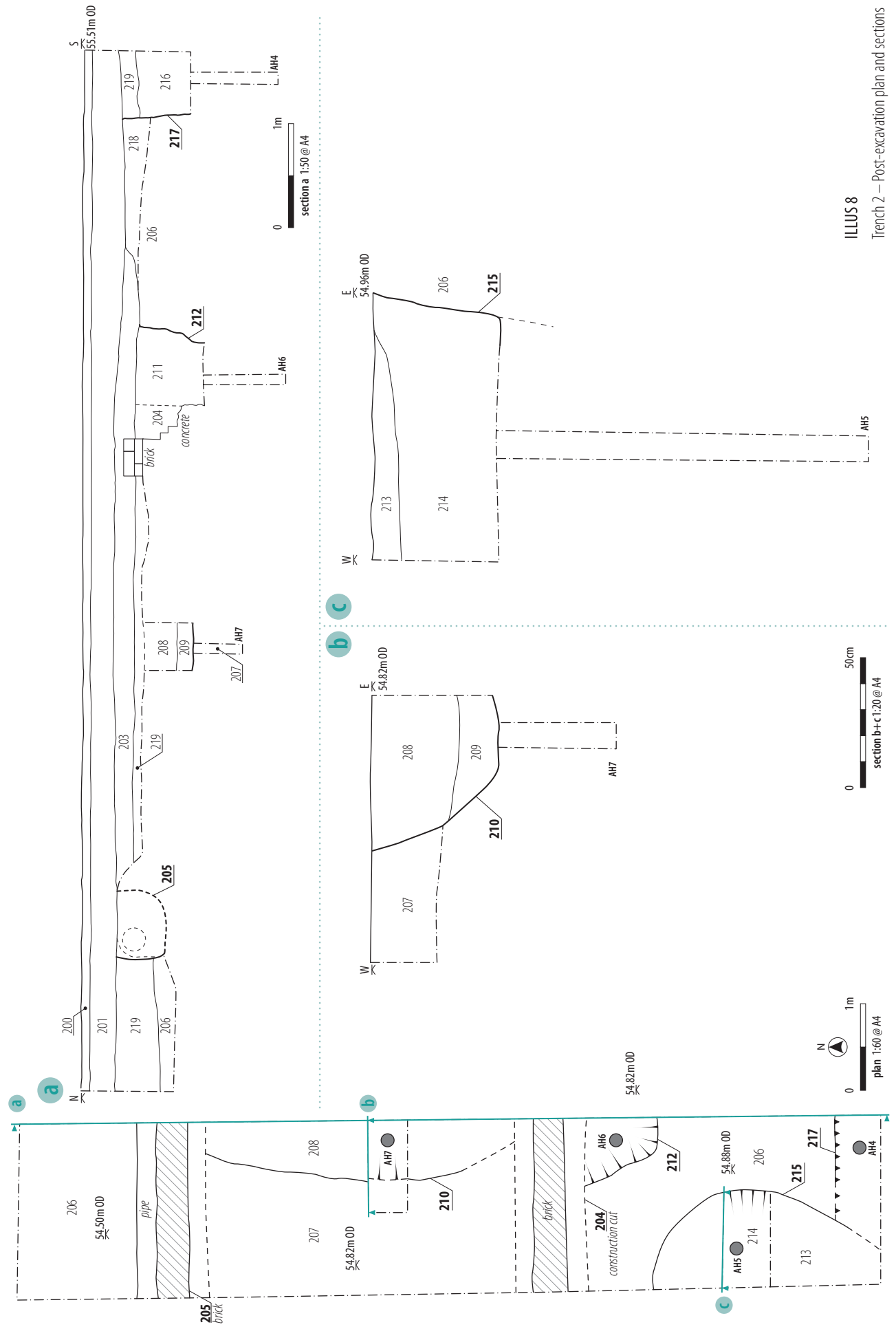
Deposit [306] was subsequently truncated by Structure [305] which appears to represent a small stone built cellar (Illus 6). The structure measured 1.70m x 2.0m+ internally, and continued beyond the limits of the trench to the west. A hand dug test pit and auger hole (Illus 7) adjacent to the eastern elevation established that the stone face of the structure continued to a depth of at least 1.63mBGL. It was not possible to see whether the structure continued below this level. The fill [304] of the structure did however continue to a depth of at least 1.92mBGL. At this depth resistance was met and the auger refused.

Deposit [304], whilst forming the backfill of Structure [305], also extended to the north and south of the structure. The mid brown silty clay deposit was loosely compacted and contained frequent sherds of post-medieval and modern pottery. It appears that deposit [304] was deposited at the point that structure [305] went out of use and has been used to raise the level of this part of the site. The pottery evidence suggests a mid-19th century date for this event.

A red brick demolition layer [302] comparable with the upper deposit [2001] in the adjacent borehole sealed deposit 304 and suggests the presence of a building on this part of the site post-dating the mid-19th century.

4.2 THE LOWER CAR PARK

Interventions in the lower car park identified variations in the level of geological deposits suggestive of the presence of deep archaeological features.



ILLUS 8
Trench 2 — Post-excavation plan and sections

ILLUS 9

Trench 2 – Looking N

ILLUS 10

Trench 2 – Looking S

Trench 2 (Illus 8)

The upper surface of glaciofluvial gravels [206] was identified at a depth of 0.52mBGL. Overlying the geological gravels in the southern part of the trench was a mid brown deposit of gravel [218] with a small quantity of silt mixed in.

Cutting through the gravel layer [218] were three extremely deep features containing pottery dated to the 13th century (Illus 9–10).

Feature [217] was apparently linear in form and orientated on an E-W alignment. A single sherd of pottery recovered from the fill, suggests a medieval date for the feature, which continued to a depth in excess of 1.85mBGL. Immediately to the west of feature [217] was a large pit feature [215] measuring approximately 2.0m in diameter. The relationship between features [217] and [215] was not entirely clear, but it appeared that the latter truncated the former. The mid brown silty clay fill [214] of pit [215] contained sherds of 13th century pottery and continued to a depth in excess of 2.40mBGL. A pink clay capping deposit [213] up to 0.10m deep appeared to have been intentionally deposited to seal the contents of pit [215].

To the north-east of pit [215] and truncated by a later red brick structure [204], a further medieval pit was identified. The feature [212] was hand excavated to a depth of 1.0mBGL and found to contain pottery sherds of 13th century date. Pottery dating to later periods was identified within the feature but this is likely to have been introduced during the excavation of the wall footing [204]. The use of a hand auger established that the feature continued to a depth of 1.94mBGL. The auger met resistance at this depth, but it could not be confirmed whether this was due to the base of the feature being reached.

Environmental samples recovered from the linear [217] and pit features [212, 215] contained a plant and animal bone assemblage typical of medieval domestic activity. Oats were the most frequently encountered grains and the animal bone recovered was probably food waste. The mixture of material within the pits suggests that the features have been utilised as rubbish pits within an urban domestic environment.

The gravel deposit [218] did not continue to the north of wall foundation [204]. At a depth of 0.60mBGL a deposit of mid brown silty clay [207] containing medieval pottery was present. The deposit was confined to a 3.5m x 2m area extending between the wall



foundations [204] and [205]. Augering established that the deposit extended to a depth of at least 1.54mBGL and it seems likely that the deposit represents a medieval pit fill (potentially a continuation of deposit [211]). Truncating deposit [207] to the east was the western edge of a large pit [210] containing a predominantly post-medieval finds assemblage.

Machine excavation in the north of the trench identified undisturbed natural gravels [206] at a depth of 0.68mBGL. Directly overlying the gravels was a dark brown silty clay layer [219] containing post-medieval pottery (Illus 11). The presence of post-medieval deposits immediately overlying the geological gravels and the absence of medieval deposits suggests that a degree of truncation has occurred in this area in the post-medieval period. This is likely to be the case over the whole trench. The gravel deposit [218] is likely to represent a truncated horizon rather than a 13th century surface contemporary with the pit features.



ILLUS 11

Trench 2 – W facing section

Fragments of carpet and other modern rubbish were identified within the deposit. A thin layer of concrete [4002] believed to represent a cellar floor was identified below the rubble backfill. Geological deposits [4003] were identified at a depth of 1.50mBGL.

The results of the borehole survey were sufficient to establish that the potential for earlier archaeological survival in this area was low due to the presence of the cellar.

The remains of a red brick structure [204/205] truncated the medieval and post-medieval deposits. The structure appears to relate to the Green Dragon stables visible on Ordnance Survey maps produced between 1886 and 1937. An overlying demolition layer [201/203] apparently relates to the demolition of these structures.

Borehole 1

Glaciofluvial gravels were identified at a depth of 2.90mBGL. A deposit of dark grey silty clay [1002] containing frequent inclusions of lumpwood charcoal and animal bone was observed at a depth of 2.60 – 2.90mBGL. Overlying [1002], a 2.40m deep deposit of dark brown silty clay [1001] was observed beneath the car park surface.

The depth of deposits [1001, 1002] and the lack of a geological horizon suggests the presence of a large pit feature at this location.

Borehole 3

Firmly compacted glaciofluvial gravels [3004] were identified at a depth of 3.80mBGL. Directly overlying the geological deposits, a 0.20m thick deposit of mid brown silt [3003] with a high water content was present. Deposit [3003] was subsequently overlain by a pink gravel [3002] of extremely loose compaction. The deposit extended in depth between 2.20 and 3.60mBGL. Overlying [3002] and sealed beneath the car park surface was a dark brown silty clay deposit [3001].

The significant depth at which geological gravels were encountered (3.80mBGL) suggests the presence of a deep archaeological feature or significant depression in the former topography at this location.

4.3 THE SOUTHERN CAR PARK

Borehole 4

A brick rubble deposit [4001] was identified immediately below the tarmac surface of the car park and continued to a depth of 1.45mBGL.

5 DISCUSSION

5.1 GEOLOGICAL DEPOSITS

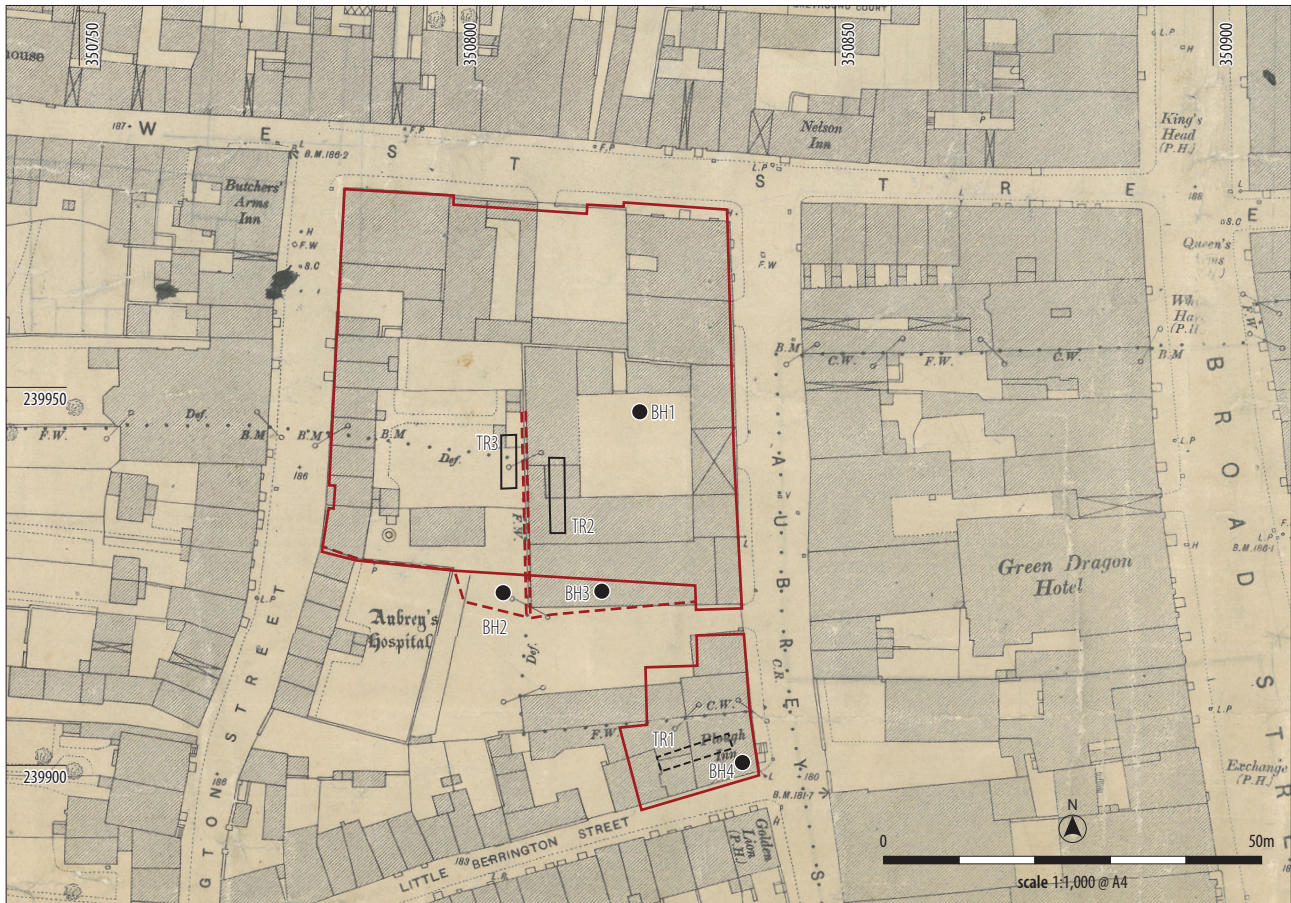
Although the level of natural geological deposits varied greatly across the site, this appears to be largely due to varying levels of truncation caused by archaeological features. Consistent values for the level of undisturbed natural deposits were obtained from Borehole 2 and Trench 2, where Glaciofluvial gravels were recorded at a level of 54.96mOD and 54.99mOD respectively.

5.2 GEOMORPHOLOGICAL FEATURES

Previous archaeological observations within the western part of the city have suggested the presence of an area of historically boggy ground or ancient stream course following the approximate line of Aubrey Street. The feature was first identified by Heys and Norwood (1958) during their attempts to identify The Kings Ditch. Having identified what they believed to be the ditch orientated north-south to the east of Aubrey Street, a further depression containing bands of organic and stony layers was identified between the ditch and Aubrey Street. A second trench excavated further south and to the east of Bridge Street identified the same sequence of deposits. The deposits were subsequently interpreted as being evidence for a stream course running from Widemarsh to the River Wye.

The results of excavations undertaken during the repair of a sewer on Aubrey Street in 1998 appeared to support this theory. Deposits of peat interspersed with lenses of gravel extended to a depth of 4.60mBGL. Radiocarbon dates obtained from the peat deposits suggested that this sequence of deposits was formed between c.1900BC and c.AD1170. Leather artefacts and a shale ring were recovered from the upper deposits.

The sequence of deposits was believed to represent some form of bog or marsh originally formed by glacial meltwater filling depressions within the gravels and clays left behind by the retreating glacier (Boucher & Hoverd 1998). These would have formed pools, bogs and marshy areas. In this case the pool or marsh quickly took the form of a peat bog. It would seem that this bog was cut by a number of channels containing flowing water draining from the



ILLUS 12

First Edition Ordnance Survey map (1886)

5.3 ARCHAEOLOGICAL DEPOSITS

Saxon

north of Hereford to the River Wye, and that these channels flooded on a number of occasions, depositing varying quantities of silt and gravel over the bog.

No features or deposits dating to the Saxon period were identified. A small amount of potentially pre-Conquest pottery was recovered from a later medieval feature, but no features could be assigned to this period. The density of 13th century pit features within Trench 2 is likely to have removed evidence for Saxon activity within this area, although the potential for Saxon features to be present elsewhere within the proposed development area cannot be ruled out.

The stratigraphic sequence of deposits identified in Borehole 3 shares similarities with the previous observations undertaken in this area. The occurrence of humic material beneath a significant deposit of gravel appears to fit the expected sequence for the previously observed geomorphological activity in this area.

Medieval

If the stratigraphic sequence identified in Borehole 3 does represent a continuation of the deposits identified on Aubrey Street, the lack of such deposits within Borehole 4, or indeed continuing to the north into Trench 2 or Borehole 1, suggests that the deposits are not located within a continuous channel, but instead represent discrete marshy areas with drier areas between.

The disturbed gravel layer [218] at a height of 55.13mOD represents the top of the archaeological resource within the lower car park. The gravel is immediately overlain by post-medieval deposits and it would therefore appear to represent a truncated horizon, with the medieval ground surface having been removed during later ground reductions on the site.

The presence of ancient marshland cannot be confirmed by the observations made during the excavation of Borehole 3 due to the limited information that can be recovered from borehole cores. The observations, however, indicate the potential for waterlogged deposits to be present within the proposed development area.

Even though the features cutting through the gravel layer [218] are truncated, they still represent extremely deep archaeological features extending to a depth of at least 2.40mBGL in the case of pit [215]. The pottery recovered forms a coherent 13th century assemblage although earlier sherds have been identified. The varied nature of the environmental material recovered from the features



suggests that the pits have been used for the disposal of general domestic urban refuse. Whether this was their primary use or they originally served a different function is unclear.

Deposit [306] identified in the upper car park, may represent the topsoil horizon contemporary with the medieval features identified in Trench 2 or represent a further pit fill. The top of the deposit was identified at a height of 55.59m, which gives an indication of the degree of truncation which has occurred within the lower car park (0.46m).

Post-medieval

The date of Structure [305] is unclear. Although the structure is filled with a 19th century deposit and therefore likely to have been in use until a relatively late date, the deposit is cut through a medieval deposit and potentially could be earlier than the 19th century in date.

The substantial stone built structure does not appear to relate to any buildings visible on historic mapping of the site, and may potentially relate to the 'Wroughthall House' described in medieval deeds.

The presence of a post-medieval soil horizon [e.g. 219, 2002] across parts of the site suggests a hiatus in intense human activity and is suggestive of the ground being used as back plots and gardens.

The cellar identified at the corner of Little Berrington Street and Aubrey Street appears to have truncated the geological horizon and is therefore likely to have removed a significant proportion of the archaeological resource within this area. The Plough Inn which formerly stood on the site was a timber framed building demolished in the 1950s. Historic maps show a building on the site as far back as 1610. The cellar itself could therefore be medieval or early post-medieval in date and of potential archaeological interest, although the concrete floor and modern infill suggests significant alteration in the recent past.

Modern

Structure [204/205] is visible on the 1886 First Edition Survey map (**Illus 12**) and represents the foundations for part of the stable buildings constructed by the Green Dragon Hotel in the second half of the 19th century.

It seems probable that the disparity in levels between the eastern and western parts of the site occurred during this phase of activity, with the eastern part of the site stripped to allow the building of the Green Dragon Stables and potentially the resulting spoil being deposited in the western half to create a flat terraced area.

6 CONCLUSION

The program of archaeological works has evaluated the archaeological resource within the proposed development site. Deep pits dating to the medieval period are present within the lower car park and are currently protected by approximately 0.40m of overburden; these are likely to have truncated any earlier (e.g. Saxon) remains and are themselves truncated by later activity. A deep deposit of re-deposited gravel at the southern extent of the lower car park may represent part of a bog or marsh identified during previous archaeological interventions in this part of Hereford.

Within the upper car park medieval deposits possibly including a fragmentary soil horizon were sealed beneath a 19th century deposit measuring 0.70m in depth. The top of a stone built structure of early post-medieval or later date is present at a depth of 0.40mBGL.

The cellar identified in the south of the proposed development site is likely to have removed any earlier significant archaeological deposits which may have been present within this area.

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8 APPENDICES

APPENDIX 1 TRENCH AND CONTEXT REGISTER

Trench 2

Top of trench: 55.51mOD / **Dimensions:** 10m x 2m

| Context | Description | Deposit D (mBGL) |
|---------|--|------------------|
| 200 | Tarmac car park surface and underlying hardcore | 0.00 – 0.11 |
| 201 | Deposit of made ground / demolition material. Comprising red brick, mortar, stone, sand. Levelling of building on site prior to conversion to car park. | 0.11 – 0.28 |
| 202 | Made ground deposit – mid grey/yellow deposit of sand, mortar and some brick. | 0.11 – 0.24 |
| 203 | Made ground deposit – mid brown sandy clay with frequent charcoal inclusions. Modern pottery, brick fragments etc. | 0.28 – 0.46 |
| 204 | Red brick wall foundation. Occupies full width of trench on E-W orientation. Wall is 0.35m wide. Contemporary with [205]. Stepped brick foundations overlie concrete base. | 0.40 – 1.16 |
| 205 | Red brick wall foundation. Parallel to and contemporary with [204]. | 0.33+ |
| 206 | Geological deposit – clean pink/orange gravels and rounded pebbles. | 0.52 – 1.16+ |
| 207 | Deposit/spread. Mid brown silty clay with grey hue. Frequent small-medium sub-rounded stones. Covers area of 3.5m x 2m between wall features [204, 205]. Truncated to N, S and E. Unclear if it represents a layer or the fill of a feature. Auger Hole 7 identified that the deposit continued to a depth of at least 1.54mBGL, at which point the auger refused. | 0.60 – 1.54+ |
| 208 | Fill of pit [210]. Dark brown silty clay with grey hue. Moderate small-medium sub-rounded and angular stones. Frequent charcoal | 0.60 – 0.90 |
| 209 | Fill of pit [210]. Mid brown silty clay. Moderate small-medium sub-rounded stones. Charcoal inclusions. Lower fill of post-med pit. | 0.90 – 1.06 |
| 210 | Cut of large post-med pit measuring 3.6m+ x 0.7m+ (plan). Truncates deposit/pit fill [207]. | 0.60 – 1.06m |
| 211 | Fill of pit [212]. Mid brown silty clay with grey hue. Moderate small-medium sub-rounded and angular stones. Infrequent charcoal inclusions. Auger Hole 6 established that the deposit continued to at least 1.94mBGL. Auger refused at this depth. | 0.50 – 1.94+ |
| 212 | Cut of medieval pit measuring 0.7m+ x 0.8m+ (plan). Steep, almost vertical sides. Cut through deposit [206]. Truncated by construction cut [204]. | 0.50 – 1.94+ |
| 213 | Clay capping over pit [215]. Pink clay with a mid-brown hue. Occasional charcoal flecks. Deposit varies between 0.01m and 0.10m in depth. Thicker towards centre. | 0.50 – 0.60 |

| | | |
|-----|--|--------------|
| 214 | Fill of pit [215]. Mid brown silty clay with grey hue. Moderate small – medium sub-rounded and sub-angular stones. Frequent charcoal flecks. Auger Hole 5 established that the deposit continued to at least 2.4mBGL. Auger refused at this depth. | 0.50 – 2.40+ |
| 215 | Cut of medieval pit measuring 2.0m+ x 1.10m+ (plan). Vertical sides. Cut through deposit [206]. Relationship with feature [217] unclear. | 0.50 – 2.40+ |
| 216 | Fill of feature [217]. Light brown silty clay with grey hue. Very loose. Occasional small sub-rounded stones. Auger Hole 4 established that the deposit continued to at least 1.85mBGL. | 0.52 – 1.85+ |
| 217 | Cut of feature measuring 1.5m+ x 0.5m+ (plan). Straight northern edge suggests that this may be a linear | 0.38 – 1.85+ |
| 218 | Dirty/disturbed deposit of | 0.38 – 0.62 |
| 219 | Dark brown/black silty clay deposit overlying archaeologically significant deposits. Post-med soil horizon? | 0.32 – 0.68 |

Summary: Truncated medieval soil horizon cut by a number of very large pit features. Predominantly 13th century pottery recovered from features.

Trench 3

Top of trench: 56.29mOD / **Dimensions:** 7m x 2m

| Context | Description | Deposit D (mBGL) |
|---------|---|------------------|
| 300 | Tarmac car park surface. | 0.00 – 0.10 |
| 301 | Brown/white hardcore deposit | 0.10 – 0.17 |
| 302 | Red brick within a black silty clay matrix. Demolition layer. | 0.17 – 0.34 |
| 303 | Very dark brown silty clay. Frequent charcoal/cinder inclusions. | 0.34 – 0.78 |
| 304 | Mid brown silty clay. Very loose compaction. Frequent modern pottery and animal bone inclusions. Augering established that the deposit continued to a depth of at least 1.92mBGL. Auger refused at this depth. | 0.30 – 1.92+ |
| 305 | Remains of stone built structure measuring 2.0m+ (E-W) x 1.70m (N-S) (internal measurement). Northern wall c.0.60m wide, Southern wall c.0.40m wide. Western wall survives to a height of 0.58m in section. Deposit (302) directly overlies the structure in the E section. Test pit/auger hole excavated adjacent to the E elevation confirmed wall continued to a depth of 1.63mBGL. Not visible beyond this depth. | 0.40 – 1.63+ |
| 306 | Mid brown silty clay with frequent orange flecks and charcoal inclusions. Lighter in colour than overlying deposit [304]. Moderate gravel and small rounded stone inclusions. Augering established that the deposit continued to a depth of at least 2.20mBGL. Auger refused at this depth. | 0.70 – 2.20m+ |

Summary: Medieval soil horizon identified at a depth of 0.70mBGL. Stone built structure identified in base of trench.



Borehole 1

Top of borehole: 55.32mOD

| Context | Description | Deposit D (mBGL) |
|---------|--|------------------|
| 1000 | Tarmac and underlying hardcore. | 0.00 – 0.20 |
| 1001 | Dark brown/black silty clay. Frequent charcoal inclusions. Infrequent brick inclusions. | 0.20 – 2.60 |
| 1002 | Dark grey silty clay. Frequent large lumpwood charcoal fragments. Small amounts of animal bone identified. | 2.60 – 2.90 |
| 1003 | Pink fluvioglacial gravels – geological deposits. | 2.90 – 4.00+ |

Summary: Borehole excavated through large pit feature similar to those identified in Trench 2.

Borehole 2

Top of borehole: 56.16mOD

| Context | Description | Deposit depth (mBGL) |
|---------|---|----------------------|
| 2000 | Tarmac and underlying hardcore. | 0.00 – 0.23 |
| 2001 | Made ground – red brick and rubble deposit. | 0.23 – 0.63 |
| 2002 | Soft dark brown clayey silt. Frequent charcoal inclusions. Sherd of post-medieval stoneware identified. | 0.63 – 1.00 |
| 2003 | Mid brown clayey silt. Moderate charcoal inclusions. Hint of red clay at base of deposit. | 1.00 – 1.20 |
| 2004 | Pink fluvioglacial gravels – geological deposits. | 1.20 – 1.90 |

Summary: [2003] potentially represents a medieval soil horizon overlying un-truncated natural gravel [2004].

Borehole 3

Top of borehole: 55.30mOD

| Context | Description | Deposit D (mBGL) |
|---------|---|------------------|
| 3000 | Tarmac and underlying hardcore/red brick | 0.00 – 0.28 |
| 3001 | Dark brown silty clay with frequent charcoal inclusions | 0.28 – 2.20 |
| 3002 | Pink gravels. Unconsolidated/extremely loose compaction | 2.20 – 3.60 |
| 3003 | Mid brown silt. High water content. | 3.60 – 3.80 |
| 3004 | Pink fluvioglacial gravels – geological deposits. | 3.80 – 5.00+ |

Summary: Loose gravels [3002] underlain by humic deposit [3003]. Similar sequence to marsh/bog deposits identified on Aubrey Street in 1998.

Borehole 4

Top of borehole: 54.67mOD

| Context | Description | Deposit D (mBGL) |
|---------|--|------------------|
| 4000 | Tarmac and underlying hardcore. | 0.00 – 0.15 |
| 4001 | Brick rubble fill of cellar. Fragments of carpet identified. | 0.15 – 1.45 |
| 4002 | Concrete cellar floor | 1.45 – 1.50 |
| 4003 | Pink fluvioglacial gravels – geological deposits. | 1.50 – 2.00+ |

Summary: Post med/modern cellar identified.

| Feature | Pottery (Medi) | | Pottery (PM-Mod) | | Iron | Clay Pipe | Glass | CBM | | Mortar | Ind Waste | Dating |
|----------------------------|----------------|-------------|------------------|-------------|----------|-----------|----------|-----------|-------------|----------|-------------|------------------------------|
| | sherds | wgt | sherds | wgt | | | | sherds | wgt | | | |
| U/S | – | – | 5 | 251g | – | 1 | – | 4 | 146g | – | – | – |
| (204) fill of wall cut | 1 | 7g | 2 | 11g | – | – | – | – | – | – | – | mixed |
| (207) spread | 5 | 15g | – | – | – | – | – | 1 | 129g | – | – | Medi with later disturbance? |
| Pit [210] (fills 208, 209) | 3 | 17g | 11 | 151g | 4 | 3 | 2 | 1 | 167g | – | – | mixed |
| Pit [212] (fill 211) | 20 | 273g | – | – | 2 | – | 1 | 10 | 24g | – | 82g | 13th with later disturbance? |
| Pit [215] (fills 213, 214) | 4 | 32g | – | – | 1 | – | – | – | – | 2 | 48g | 13th |
| Ditch [217] (fill 216) | 1 | 8g | – | – | 1 | – | 2 | 15 | 136g | – | 31g | Medi |
| (304) garden soil | – | – | 5 | 42g | – | – | – | – | – | – | – | 19th |
| (306) deposit | 3 | 15g | – | – | – | – | – | – | – | – | 18g | Medi |
| Total | 37 | 367g | 23 | 455g | 8 | 4 | 5 | 31 | 602g | 2 | 179g | |

TABLE A2.1

Summary of assemblage

APPENDIX 2 FINDS ASSESSMENT

JULIE FRANKLIN, STEPHANIE RATKAI

Introduction

The assemblage numbered 60 sherds of pottery and 31 of ceramic building material, with smaller collections of ironwork, clay pipe, glass, industrial waste and mortar. Finds ranged in date from possibly as early as the 10th century to the 19th century. The finds have all been recorded on an MS Access database which forms part of the site archive. A table showing this data is given at the end of the report. A summary of the assemblage and feature spot dating is shown below.

Pottery

The small assemblage consisted of 60 sherds (822g) of pottery. The medieval pottery was matched to the Hereford pottery type series (Vince 1985) and quantified by sherd count, weight and rim count. The post-medieval and modern pottery was quantified in the same way but designated by common name rather than a code. All fabrics were dated and comments recorded.

Over half the sherds were of medieval date and these formed a fairly coherent group dating to the early 13th century. A possibly pre-conquest fabric D1/D2 sherd (211) is both too small for secure fabric typing and potentially residual. Likewise a single D2 sherd (207) could also be residual. The fabric does continue into the early 13th century but this is beyond its usual flourish.

| Fabric code | Fabric name | Sherds | Weight | Dating |
|-------------|----------------------------------|--------|--------|------------|
| A2 | Herefordshire Wares | 6 | 26g | E13th |
| A3 | Herefordshire Wares | 5 | 108g | E13th |
| B1 | Malvernian Wares – cooking pots | 16 | 200g | 13th |
| B4 | Malvernian Oxidised Glazed Wares | 6 | 20g | M14th–16th |

| Fabric code | Fabric name | Sherds | Weight | Dating |
|--------------|--|-----------|-------------|-------------|
| C2 | Worcester Ware – jugs | 2 | 6g | E13th |
| D1/2 | Cotswold Wares – cooking pots/ cooking pots & pitchers | 1 | <0.5g | 10th–12th |
| D2 | Cotswold Wares – cooking pots & pitchers | 1 | 7g | L11th–E13th |
| Total | | 37 | 367g | |

TABLE A2.2

Type series of medieval pottery fabrics

The greater part of the medieval pottery consisted of cooking pots in fabrics A2 and B1. Fabric A3 sherds were from tripod pitchers (a stubby, circular-sectioned foot was noted) with the exception of one cooking pot/jar sherd (216). One of the pitcher sherds was burnt. Jugs were found in fabric C2, Worcester-type glazed ware. A large B1 sherd (pit [212]) is almost certainly part of a curfew. The exterior is decorated with an applied, thumbled strip and the interior is soot blackened. This form is uncommon but not unknown in Hereford.

The generally scarcity of late medieval types suggests something of a hiatus until the later 17th or 18th century. The only sherds which could be dated to the intervening period were three small B4 sherds of 14th to 16th century date. These were typically limited to contexts (207, 211) which showed other signs of post-medieval or modern disturbance or mixing.

Pottery of the 18th and 19th centuries probably represents the lower end of the market. There were no 'formal dining wares' and tea wares were represented by a painted ware saucer, a creamware hemispherical bowl, and a possible pearlware tea bowl all dating from a period after the price of tea had been much reduced by the Commutation Act of 1784. However a Chinese porcelain base sherd from a tea bowl probably predates the act. It is thick-walled, with red and black painted decoration and gilding. Sherds from a large mug with orange and green sponged decoration were found in pit



[210]. This is precisely the type of pottery that would be associated with an artisanal household. There was one item of sanitary ware, a black transfer-printed chamber pot with underglaze painting, from garden soil (304). This is likely to date to the 1850s or a little later.

Iron

There were eight iron finds, most of which were nails, including a well-preserved example with an L-shaped head from 13th century pit [215]. The only iron find of note was a fragment of cutlery tang, probably from a table fork or spoon, with a decorative copper alloy collar (pit [210]). It is likely to be contemporary with the 18th and 19th century pottery in this context.

Clay pipe

Four sherds of clay pipe stem were recovered. All were plain with a narrow bore, indicating an 18th century or later date. Three were found in late pit [210], the other was unstratified.

Glass

There were five pieces of glass. A sherd of window and one of bottle glass were found in modern pit [210]. Two tiny fragments of glass retrieved from a sample retent from the apparently medieval ditch [217] are easily explained away as intrusive. Considerably larger and thus less easy to dismiss is a sherd of possibly 17th or early 18th century wine bottle found in pit [212]. This is the only post-medieval sherd in an otherwise medieval context assemblage.

CBM

The assemblage consisted of 31 sherds (602g), though 20 of these sherds (9g) were fired clay fragments too small to identify. The fabrics were matched to the Hereford pottery type series (Vince 1985) and are typical of the area, falling into either Hereford or Malvernian types. They can be dated to the medieval, late medieval and post-medieval periods, though few are well stratified.

| Fabric code | Fabric name | Type | Sherds | Weight | Dating |
|--------------|---------------------|--|-----------|-------------|--------|
| A7 | Herefordshire Wares | daub | 1 | 14g | |
| A7b | Herefordshire Wares | flat roof tile, glazed | 4 | 146g | Medi |
| A7/A9 | Herefordshire Wares | tile (possibly floor) | 1 | <0.5g | Medi |
| A10? | Herefordshire Wares | hand-made brick | 2 | 115g | L Medi |
| B4? | Malvernian Wares | fired clay/brick fragment | 1 | 22g | L Medi |
| B5? | Malvernian Wares | Hand-made brick, roof tile (possibly valley) | 2 | 296g | PM |
| – | Fired Clay | fragments | 20 | 9g | – |
| Total | | | 31 | 602g | |

TABLE A2.3

Type series of CBM fabrics

The sherds recovered from ditch [216] include two of hand-made brick tentatively identified as fabric A10. Fabric A10 bricks have been dated to

the late 15th to mid-16th century (Vince 2002, 94) though a fragment was also noted amongst late 13th to early 14th century deposits (Vince 2002, 93). The sherds suggest this ditch fill may be later medieval in date.

Pit [212] included a small fragment of medieval A7/A9 possible floor tile and a larger sherd of possible late medieval B4 brick. Associated pottery dates this pit fill to the 13th century though later disturbance is shown by a sherd of glass (see above) and thus it is possible that the B4 brick is also intrusive.

A sherd of hand-made brick in spread (207) is possibly of post-medieval fabric B5 and again, suggests later disturbance or mixing in this context.

Of interest was a sherd of 'valley tile' also probably in fabric B5, found in late pit [210]. This form has not previously been recorded by Vince in Hereford (Vince 1985; 2002).

Mortar

A single fragment (2g) of lime mortar was found in 13th century pit [215].

Industrial waste

A total of 179g of industrial waste was recovered, all from sample retents. This amounted to small fragments of amorphous slag and hammerscale. The latter is indicative of smithing, a common activity in medieval urban settings. All the finds were from medieval deposits (pit [212], pit [215], ditch [217], deposit (306)).

Discussion

The pottery clearly indicates activity in the area in the early 13th century. However subsequent post-medieval activity has disturbed and mixed many deposits associated with it. The only feature which can be shown to contain undisturbed 13th century deposit is Pit [215], though finds are relatively sparse within it.

Pit [212] contains predominantly early 13th century material but with a single sherd of late medieval brick and one of post-medieval bottle glass to show disturbance or mixing with overlying deposits. Ditch [217] and deposits (306) contain a mixture of 13th century and later medieval material in varying proportions. The small later fragment from (306) is more likely to be intrusive, while in ditch [217] it seems more likely that the early material is residual. Spread (207) contains both early and late medieval material with an, again, possibly intrusive sherd of post-medieval brick.

Finds from wall cut fill (204) are few and mixed in date. Pit [210] contains a good quantity of domestic midden material. It seems to have been backfilled around the early 19th century, though includes material dating back as far as the late medieval period. All the finds in the garden soil (304) could have been deposited in the mid-19th century.

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Appendix 2.1 Finds catalogue

| Context | Context notes | Sample | Qty | Weight (g) | Material | Object/Fabric | Description | Spot date |
|---------|----------------------|--------|-----|------------|----------------|---------------------|--|-------------|
| 0 | U/S machining | — | 4 | 146 | CBM | A7b | flat roof tile, glazed | Medi |
| 0 | U/S machining | — | 1 | 8 | Pottery (PM) | A7e | int partial brown glaze | 17th |
| 0 | U/S machining | — | 1 | 100 | Pottery (PM) | A7e | Wide-mouthed bowl, int olive glaze | 17th |
| 0 | U/S machining | — | 1 | 5 | Pottery (Mod) | Slipware | platter, dark ground white slip trails, buff fabric, heavy mortar adhesions on ext surface | M18th–19th |
| 0 | U/S machining | — | 1 | 3 | Clay Pipe | Stem | narrow bore | 18th–E20th |
| 0 | U/S machining | — | 1 | 135 | Pottery (Mod) | Transfer-printed | mug? Blue print, design of horses | 19th |
| 0 | U/S machining | — | 1 | 3 | Pottery (Mod) | Transfer-printed | blue orientalising print | 19th |
| 204 | wall cut fill | — | 1 | 7 | Pottery (Medi) | B1 | cpj | 13th |
| 204 | wall cut fill | — | 1 | 10 | Pottery (PM) | Mottled ware | mug | L17th–18th |
| 204 | wall cut fill | — | 1 | 1 | Pottery (Mod) | Pearlware | tea bowl?, blue transfer printed | E19th |
| 207 | spread | — | 1 | 4 | Pottery (Medi) | A2 | cpj heavy ext soot | E13th |
| 207 | spread | — | 1 | 1 | Pottery (Medi) | B4 | intrusive? Trace of ext tan glaze | M14th–16th |
| 207 | spread | — | 1 | 1 | Pottery (Medi) | B4 | small flake from surface, glaze speckles | M14th–16th |
| 207 | spread | — | 1 | 129 | CBM | B5? | Hand-made brick, 3.5cm thick | PM |
| 207 | spread | — | 1 | 2 | Pottery (Medi) | C2 | jug, ext dk green glaze, int white slip splashes | E13th |
| 207 | spread | — | 1 | 7 | Pottery (Medi) | D2 | cpj oolitic, heavy ext soot | L11th–E13th |
| 208 | Pit 210 fill | — | 1 | 9 | Pottery (Medi) | B4 | form?, ext tan glaze | M14th–16th |
| 208 | Pit 210 fill | — | 1 | 6 | Pottery (Medi) | B4 | form? Ext soot, int glaze dribbles | M14th–16th |
| 208 | Pit 210 fill | — | 1 | 2 | Pottery (Medi) | B4 | — | M14th–16th |
| 208 | Pit 210 fill | — | 1 | 3 | Glass | Bottle | green sherd, good condition | 18th–20th |
| 208 | Pit 210 fill | — | 1 | 1 | Pottery (Mod) | Creamware | — | c.1800 |
| 208 | Pit 210 fill | — | 1 | 3 | Iron | Fragment | small lump | |
| 208 | Pit 210 fill | — | 1 | 3 | Pottery (Mod) | Industrial slipware | bowl | E19th? |
| 208 | Pit 210 fill | — | 2 | 3 | Pottery (PM) | Mottled ware | — | L17th–18th |
| 208 | Pit 210 fill | — | 1 | 7 | Iron | Nail | small head | |
| 208 | Pit 210 fill | — | 1 | 2 | Pottery (Mod) | Porcelain | burnt, glaze black, ?tea bowl | c.1800? |
| 208 | Pit 210 fill | — | 1 | 5 | Pottery (PM) | Slipware | ext yellow, int brown, mug or bowl | E–M18th |
| 208 | Pit 210 fill | — | 1 | 56 | Pottery (Mod) | Sponged ware | mug, more of this in 209 | E19th? |
| 208 | Pit 210 fill | — | 2 | 2 | Clay Pipe | Stems | narrow bore | 18th–E20th |
| 208 | Pit 210 fill | — | 1 | 1 | Glass | Window | small sherd, laminating | 17th–19th |
| 209 | Pit 210 primary fill | — | 1 | 167 | CBM | B5? | roof tile, possibly a valley | PM |
| 209 | Pit 210 primary fill | — | 1 | 1 | Pottery (PM) | Blackware | ie brown glaze | 17th–18th |
| 209 | Pit 210 primary fill | — | 1 | 22 | Pottery (Mod) | Creamware | hemispherical bowl | c.1800 |



| Context | Context notes | Sample | Qty | Weight (g) | Material | Object/Fabric | Description | Spot date |
|---------|----------------------|--------|-----|------------|------------------|------------------|--|------------|
| 209 | Pit 210 primary fill | — | 1 | 14 | Iron | Cutlery Fragment | Piece of tang from a fork, spoon or knife. Scale tang with iron rivet and impression of handle (bone?) surviving in iron corrosion. Copper alloy rounded collar at join of ankle and shaft. Broken end of shaft appears narrow and rounded in section (ie not blade shaped). Could be a stylised table knife, more likely a spoon or fork. | 14th–19th |
| 209 | Pit 210 primary fill | — | 1 | 14 | Iron | Nail | large head, wrought | |
| 209 | Pit 210 primary fill | — | 2 | 58 | Pottery (Mod) | Sponged ware | large mug/tankard, could be a creamware with sponged dec, thick mortary accretion on interior, used for mixing something | E19th? |
| 209 | Pit 210 primary fill | — | 1 | 3 | Clay Pipe | Stem | narrow bore | 18th–E20th |
| 211 | Pit 212 fill | — | 4 | 15 | Pottery (Medi) | A2 | cpj | E13th |
| 211 | Pit 212 fill | — | 1 | 21 | Pottery (Medi) | A3 | pitcher, burnt? opaque dk. grey glaze, int. blackened | E13th |
| 211 | Pit 212 fill | — | 2 | 62 | Pottery (Medi) | A3 | tripod pitcher, stubby circular foot, patchy dk. green glaze | E13th |
| 211 | Pit 212 fill | — | 1 | 17 | Pottery (Medi) | A3 | pitcher, olive glaze | E13th |
| 211 | Pit 212 fill | — | 1 | 0 | CBM | A7/A9 | tile frag, possibly floor tile | Medi |
| 211 | Pit 212 fill | — | 1 | 19 | Pottery (Medi) | B1 | cpj base/ba, heavy ext soot | 13th |
| 211 | Pit 212 fill | — | 7 | 66 | Pottery (Medi) | B1 | cpj | 13th |
| 211 | Pit 212 fill | — | 1 | 63 | Pottery (Medi) | B1 | applied thumbbed strip, heavy internal blackening, unglazed – curfew | 13th |
| 211 | Pit 212 fill | — | 1 | 6 | Pottery (Medi) | B1 | cpj base/ba | 13th |
| 211 | Pit 212 fill | — | 1 | 22 | CBM | B4? | fired clay/brick fragment | L Medi |
| 211 | Pit 212 fill | — | 1 | 23 | Glass | Bottle | green sherd, badly laminating, possibly from round-bodied bottle | 17th–18th |
| 211 | Pit 212 fill | — | 1 | 4 | Pottery (Medi) | C2 | jug, int. white slip and on upper face of the rim | E13th |
| 211 | Pit 212 fill | — | 1 | 0 | Pottery (Medi) | D1/2 | too small to identify accurately | 10th–12th |
| 211 | Pit 212 fill | — | 8 | 2 | CBM | Fired Clay | tiny fragments too small to identify | — |
| 211 | Pit 212 fill | 2 | — | 61 | Industrial Waste | Iron Slag? | fragments | — |
| 211 | Pit 212 fill | 2 | — | 21 | Industrial Waste | Mag Res | — | — |
| 211 | Pit 212 fill | — | 2 | 5 | Iron | Nail | shaft, possibly small head | — |
| 213 | Pit 215 clay cap | — | 1 | 15 | Pottery (Medi) | B1 | cpj | 13th |
| 214 | Pit 215 fill | 3 | 2 | 1 | Mortar | — | fragments | — |
| 214 | Pit 215 fill | — | 1 | 1 | Pottery (Medi) | B1 | cpj | 13th |
| 214 | Pit 215 fill | — | 1 | 11 | Pottery (Medi) | B1 | cpj | 13th |
| 214 | Pit 215 fill | — | 1 | 5 | Pottery (Medi) | B1 | cpj | 13th |
| 214 | Pit 215 fill | 3 | — | 33 | Industrial Waste | Iron Slag? | fragments | |
| 214 | Pit 215 fill | 3 | — | 15 | Industrial Waste | Mag Res | | |
| 214 | Pit 215 fill | — | 1 | 8 | Iron | Nail | L-shaped head | |
| 216 | Ditch 217 fill | — | 1 | 12 | CBM | A10? | hand-made brick fragment | L Medi |
| 216 | Ditch 217 fill | — | 1 | 103 | CBM | A10? | hand-made brick fragment | L Medi |
| 216 | Ditch 217 fill | — | 1 | 8 | Pottery (Medi) | A3 | cpj | E13th |
| 216 | Ditch 217 fill | — | 1 | 14 | CBM | A7 | daub | |
| 216 | Ditch 217 fill | 4 | 12 | 7 | CBM | Fired Clay | small unidentifiable fragments | |

| Context | Context notes | Sample | Qty | Weight (g) | Material | Object/Fabric | Description | Spot date |
|---------|----------------|--------|-----|------------|------------------|-------------------|--|---------------------|
| 216 | Ditch 217 fill | 4 | 2 | 0 | Glass | Fragments | — | — |
| 216 | Ditch 217 fill | 4 | — | 23 | Industrial Waste | Iron Slag? | fragments | |
| 216 | Ditch 217 fill | 4 | — | 8 | Industrial Waste | Mag Res | — | — |
| 216 | Ditch 217 fill | 4 | 1 | 1 | Iron | Nail | shaft | |
| 304 | Garden soil? | — | 1 | 24 | Pottery (Mod) | Chinese porcelain | teabowl, grey fabric, red and black painted dec and gilding, possibly a figural design, v thick bodied, looks like the cruder end of the export market | 18th |
| 304 | Garden soil? | — | 1 | 4 | Pottery (Mod) | Painted ware | saucer, earlier period of painted ware | E19th |
| 304 | Garden soil? | — | 1 | 2 | Pottery (Mod) | Transfer-printed | bowl, some sort of ironstone china? | 19th |
| 304 | Garden soil? | — | 1 | 3 | Pottery (Mod) | Transfer-printed | blue print | 19th, prob 1850+ |
| 304 | Garden soil? | — | 1 | 9 | Pottery (Mod) | Transfer-printed | black print, underglaze painted, chamber pot | 19th, prob 1850+ |
| 306 | deposit | — | 1 | 7 | Pottery (Medi) | A2 | cpj inturned rim | E13th |
| 306 | deposit | — | 1 | 7 | Pottery (Medi) | B1 | cpj | 13th |
| 306 | deposit | — | 1 | 1 | Pottery (Medi) | B4 | — | M14th–16th |
| 306 | deposit | 1 | — | 13 | Industrial Waste | Iron Slag? | fragments | — |
| 306 | deposit | 1 | — | 5 | Industrial Waste | Mag Res | — | — |



APPENDIX 3 ENVIRONMENTAL ASSESSMENT

LAURA BAILEY

Introduction

Four bulk soil samples and hand collected animal bone recovered during archaeological works at West Street Hereford, were received for palaeoenvironmental assessment. The site comprised large pits and a linear ditch cut into glacio-fluvial gravels. Finds recovered from the site dated from the 10th to 19th Century. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains in the samples and to characterize the assemblage as far as possible.

Methodology

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250 µm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. All samples were scanned using a stereomicroscope at magnifications of x10 and up to x100. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers et al. (2006).

Identification to species level was made where possible, using Schmid (1972) and reference material. Potential for ageing was based on presence of molar teeth (Hillson 1986) or articular ends of bones suitable for determining state of epiphyseal fusion (Silver 1969).

Results

Results of the assessment are presented in Tables 1 (Retent samples), 2 (Flot samples), and 3 (Animal bone). Material suitable for AMS (Accelerated Mass Spectrometry) radiocarbon dating is shown in the tables.

Charcoal

Wood charcoal was present, in varying quantities, in all samples. Where preservation allowed, charcoal present in the flots was categorized as oak or non-oak.

Cereal grain

Cereal grains were present in the flots and retents of all deposits in varying quantities. Oats (*Avena* sp) were the most commonly encountered, present in the fills 211, 214 of pits 212 and 215 and the fill 216 of ditch [217] (Table A3.1). A small number of bread wheat (*Triticum aestivo-compactum*) grains were present in deposit 211, 214 and 216. Barley (*Hordeum vulgare*) grains were identified in deposits 211 and 216. In some cases the cereal grain was vesicular, probably the result of charring when wet.

Hazel nutshell

A small number of hazel (*Corylus avellana*) nutshell fragments were present in the retents of deposit 214. The nutshell has been weighed as part of the assessment and is quantified in the retent table (Table A3.1).

Other Charred Plant remains

A small quantity of other charred plant remains including the 'seeds' of goosefoots (*Chenopodium* sp) and corn marigold (*Chrysanthemum segetum*) were recovered from deposits 211 and 306 respectively. Goosefoot is a common weed that grows in a variety of places including disturbed ground. Corn marigold is a common weed of acid arable soils, frequently encountered in Medieval assemblages. Legumes (*Vicia*/*Lathyrus*) were also present in deposit (211).

Insect remains

Fragments of beetle exoskeleton were present in deposits 306. Larvae were encountered in deposits 214 and 216 and fly puparia were present in deposit 216.

Animal bone

The animal bone assemblage comprised 1417g of bone recovered from seven contexts including pit fill, ditch fill and deposits. A summary of the assemblage is given in Table A3.3.

The condition was generally poor and heavily fragmented. It is likely that the poor condition of the bone relates to taphonomic processes and damage following deposition.

Gnaw marks were apparent on several bones including a bird humerus from the fill (214) of pit [215], a cow phalange from the fill (211) of pit [212] and a cow proximal radius from the fill (209) of pit [210], suggesting that the bones may have been moved by dogs or other scavengers from the place where they were initially discarded.

Many of the bones were vertically and medially split, possibly for marrow extraction. Cut marks were also present on many of the bones including a possible pig tibia fragment from deposit 207.

Domestic mammals including pig, cattle and sheep were present, together with elements of bird and fish. Many of the bones were very heavily fragmented and therefore classified as indeterminate large or medium mammal, thus ribs were allocated depending on their size.

Discussion

The environmental and animal bone assemblages offer some insight into site economy. The assemblage indicates that the inhabitants had a varied diet consuming domestic animals, bread, birds, fish and nuts.

The cereal grain assemblage dominated by oat and hulled barley, is somewhat typical of Medieval assemblages. Oats, a common cultivar in the medieval period, were the most frequently encountered grains in the assemblage, although barley and a small amount of bread wheat were also present. The achenes of corn marigold, a common weed of cereal fields, would be also consistent with a Medieval date for the deposit.

The plant material appears to have been re-deposited and does not relate to the original function of the features. In many cases animal bone and finds were also recovered from the deposits, suggesting that the grains were the result of incidental small scale losses perhaps during food processing and preparation later to be discarded with other domestic waste.

Elements of the main domestic species including cattle, sheep and pig were present together with fish and bird bones. The animal bone was relatively poorly preserved with evidence of gnaw marks on several. It is likely that the animal bone was probably food waste, discarded around the site, and disturbed and reworked throughout successive phases. Finds evidence suggests that the deposits are mixed, therefore, little can be said regarding temporal change in species.

The majority of environmental remains, with the exception of animal bone, were preserved by charring. However, the presence of invertebrate remains such as fly puparia suggest that the pits were open for a short period after deposition and may have been damp, or slightly waterlogged. The presence of a natural watercourse and associated marsh in the vicinity could give rise to these damp conditions.

Recommendations

The animal bone assemblage is too small for any meaningful statistical analyses to be undertaken at present. Given the diverse nature of the animal bone recovered together with smaller amounts of charred plant remains any further work

should consider a further programme of retrieval. Standard bulk samples should be taken for the retrieval of plant remains and small animal bones, and a programme of wet-sieving of well stratified contexts should be considered for animal bone recovery. The animal bone assemblage from the evaluation should be catalogued together with bone recovered during any future mitigation work, in order to provide information on the economy of medieval Hereford.

References

- Cappers, RTJ, Bekker, RM & Jans, JEA 2006 *Digital seed atlas of the Netherlands*, Barkhuis Publishing and Groningen University Library, Groningen.
- Hillson, S 1986 *Teeth* Cambridge.
- Schmid, E 1972 *Atlas of Animal Bones*, Amsterdam: Elsevier
- Silver, I 1969 'The ageing of domestic animals' in Brothwell, D & Higgs, E (eds.), *Science in Archaeology*, London: Thames and Hudson, pp250–68.

Appendix 3.1 Environmental results

| Context | Sample | Feature | Sample Vol (l) | Unburnt bone | | Charred plant | Charcoal | | Material available for AMS Dating | Comments |
|---------|--------|---------------------|----------------|--------------|---|---------------|----------|---------------|-----------------------------------|--|
| | | | | Mammal | | | Qty | Max size (cm) | | |
| 211 | 2 | Fill of pit [212] | 5 | | + | | ++ | 1 | Yes | 1 bread wheat grain |
| 214 | 3 | Fill of pit [215] | 10 | | + | | ++ | 1 | Yes | Contains hazelnut shell fragments + (<1g), oat and barley grains |
| 216 | 4 | Fill of ditch [217] | 10 | | + | | ++ | 1 | Yes | Bread wheat grain |
| 306 | 1 | Garden soil | 10 | ++ | + | | ++ | 1 | Yes | Oat grain |

Key: + = rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50)
NB charcoal over 1cm is suitable for identification and AMS dating

TABLE A3.1

Retent sample results

| Context | Sample | Feature | Total flot Vol (ml) | Cereal grain | | | Other charred plant remains | Charcoal | | Material available for AMS | Comments |
|---------|--------|---------------------|---------------------|--------------|--------|-------|--------------------------------|----------|---------------|----------------------------|--|
| | | | | Oats | Barley | Wheat | | Qty | Max size (cm) | | |
| 211 | 2 | Fill of pit [212] | 20 | +++ | + | + | Vicia/Lathyrus, Chenopodium sp | ++ | 2 | Yes | Charcoal oak and non-oak |
| 214 | 3 | Fill of pit [215] | 10 | ++ | | + | | ++ | 2 | | Contains larvae. Charcoal non-oak |
| 216 | 4 | Fill of ditch [217] | 15 | ++ | + | | | ++ | 1.5 | Yes | Also contains larvae and fly puparia |
| 306 | 1 | Garden soil | 5 | - | - | - | Chrysanthemum segetum | ++ | 1 | Yes | Also contains beetle exoskeleton and small vitrified fragments |

Key: + = rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50)
NB charcoal over 1cm is suitable for identification and AMS dating

TABLE A3.2

Flotation sample results



| Context | Sample | Feature | Preservation | Weight (g) | Cattle | Sheep | Pig | Bird | Fish | Indet large mammal | Indet med mammal | Comments |
|---------|--------|---------------------------|--------------|------------|--------|-------|-----|------|------|--------------------|------------------|--|
| 207 | 09 | Deposit | Poor | 244 | - | + | + | + | + | + | + | Large mammal bone heavily fragmented- ephiphyses unfused. Sheep elements- include tooth, phalange and distal metacarpal. Pig- heavily fragmented mandible and tibia fragment. Several deep cut marks visible on possible pig bone fragment. Indeterminate medium sized mammal rib and vertebra fragments. Indeterminate large mammal- rib fragments present. |
| 208 | 14 | Fill of pit [210] | Poor | 155 | + | + | - | - | + | - | + | Cow astragalus- butchery marks. Fish - ceratohyal, sheep-phalange, tibia. Possible rabbit skull fragment. |
| 209 | 10 | Primary fill of pit [210] | Poor | 245 | - | - | - | + | - | + | + | Cow- proximal radius- vertically split, dog chewed. Indet medium sized mammal rib fragments. |
| 211 | 08 | Fill of pit [212] | Poor | 386 | + | + | | + | + | + | | Sheep mandible, horn core fragments, phalanges (epiphyses unfused) and scapula fragments. Cow phalange- dog chewed. Cow, distal metacarpal. Several heavily fragmented bones- including rib and long bones- large mammal- longitudinally and medially split. |
| 214 | 05 | Fill of pit [215] | Poor | 186 | - | - | - | - | - | + | + | Indet large mammal- skull fragments. Indet medium mammal- long bone fragment, vertically split. Bird humerus- dog chewed. |
| 216 | 11 | Fill of ditch [217] | Poor | 183 | - | - | + | + | - | + | - | Bird- distal tarso-metatarsus, proximal tibio-tarsus. Pig mandible and teeth. Indeterminate large mammal rib fragments. Retents include heavily fragmented animal bone. |
| 306 | 12 | Garden soil | Poor | 18 | + | - | - | - | + | - | - | Retent- Very heavily fragmented- fish vertebrae, fragmented cow teeth. |

IM = indeterminate mammal / + = species present

TABLE A3.3

Animal bone catalogue



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NORTH

Headland Archaeology
13 Jane Street
Edinburgh EH6 5HE

T 0131 467 7705
E north@headlandarchaeology.com

SOUTH & EAST

Headland Archaeology
Building 68C, Wrest Park, Silsoe
Bedfordshire MK45 4HS

T 01525 861 578
E southandeast@headlandarchaeology.com

MIDLANDS & WEST

Headland Archaeology
Unit 1, Premier Business Park, Faraday Road
Hereford HR4 9NZ

T 01432 364 901
E midlandsandwest@headlandarchaeology.com

www.headlandarchaeology.com