

BBHH17



16–18 HIGH TOWN AND 12 EAST STREET, HEREFORD

ARCHAEOLOGICAL EXCAVATION

PLANNING REF. P172824
EHE NO. 80356

commissioned by Alban House (Hereford) Ltd Birmingham

January 2019

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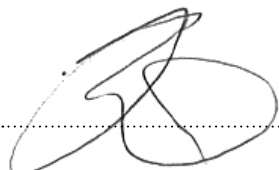
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PROJECT SUMMARY

Headland Archaeology undertook an archaeological excavation in advance of residential and commercial development of a site located between High Town and East Street, Hereford. The investigation revealed deposits potentially associated with the former Saxon period town ramparts and the remains of three phases of stone foundations, of possible medieval date, along with yard surfaces, refuse pits and cess pits. Post-medieval and later structural remains were also identified, including two wells.

Evidence of iron working and probable textile processing in the vicinity of the site during the medieval period was found together with a small pottery assemblage dating from the 12th to 16th centuries.

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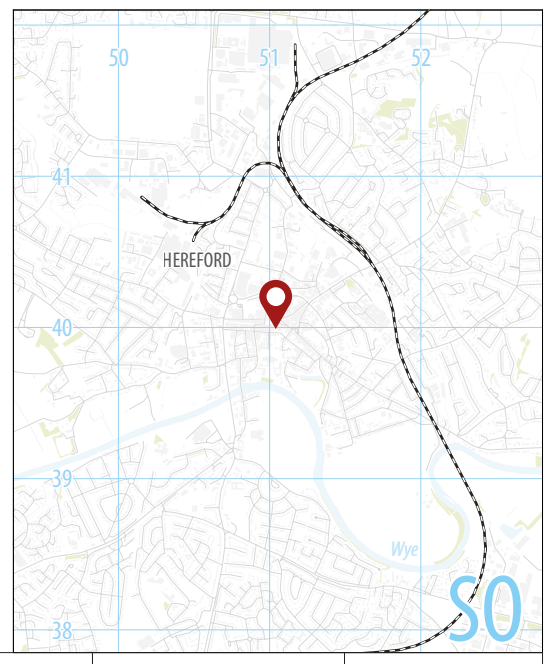
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16–18 High Town
East Street
Hereford
Herefordshire



0 200km
1:12,500,000 @ A4



0 15m
1:750 @ A4

development boundary
limit of excavation



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ILLUS 1 Site location

16–18 HIGH TOWN AND 12 EAST STREET, HEREFORD

ARCHAEOLOGICAL EXCAVATION

1 INTRODUCTION

This report presents the results of an archaeological excavation and watching brief carried out in advance of the construction of a residential property fronting East Street, Hereford; associated with the wider residential and commercial development of a site at High Town and East Street, Hereford.

1.1 PLANNING BACKGROUND

The site represents a block of building land in central Hereford. Structures which stood toward the northern part of the site, fronting High Town, included two listed buildings which were badly damaged by fire in 2010.

Planning permission was granted for the redevelopment of the site as a mixed residential and commercial development, incorporating the commercial development on the High Town frontage with a courtyard and residential property to the rear, fronting onto East Street.

The archaeological advisor to the planning authority, Mr Julian Cotton, indicated that an archaeological excavation would be required to mitigate the impact of the proposed new development, through the acquisition of a full archaeological record and the interpretation of that record.

The investigations incorporated the area comprising the footprint of the proposed new structure fronting onto East Street.

1.2 DESCRIPTION OF THE SITE

The site was located in the core of the City of Hereford, centred at NGR SO 51058 39993 (Illus 1) and is within the Hereford Area of Archaeological Importance.

The surface of the site was covered by tarmac, on relatively level land and was flanked by buildings to the east and west. The majority of the fire damaged structures to the north had been demolished, leaving only the façade fronting High Town, supported by scaffolding.

The excavation area lay between 57.40 and 57.70m above Ordnance Datum (AOD) to the south of the fire damaged buildings, fronting onto East Street. At the northern extent of the excavation area, the ground fell away gradually towards the High Town frontage.

The underlying solid geology within the site comprises Triassic Mercia Mudstone overlain by glacial sands and gravels (NERC 2018).

1.3 ARCHAEOLOGICAL BACKGROUND

The site falls within the Hereford Area of Archaeological Importance (AAI) and in proximity to the presumed position of the rampart associated with Hereford's Saxon period defensive ditch. The earliest known defences of the City of Hereford were built in the mid-9th century, with a turf and clay rampart, believed to have been 9.5m in width and 2.5m high. The defensive circuit was extended to include the northern part of the city at the end of the 12th century and the defences along the line of what is now East Street became redundant. Excavations have indicated that the defences fell into disuse and gradually deteriorated to a smooth bank and infilled ditch. Some doubt remains whether East Street and West Street mark the line of the rampart or the course of the communication road which ran along the back of the defences.

Numerous archaeological interventions, from the 1960s onward, have recorded sections through the Saxon defensive rampart, for example, the works undertaken by Hoverd in East Street (1998).



ILLUS 2 Stratigraphic sequence, western edge of excavation

An archaeological bore-hole survey carried out at 31 Eign Gate (Daffern 2011) revealed that the top of the defensive ditch was present at approximately 2m below the existing ground surface. The ditch itself was around 1.5m deep. This observation was made some 280m to the west of the investigation area.

Evaluation trenches excavated in 2016 (Thomson 2016), within the new footprint proposal on the site, revealed evidence of possible later post-medieval path surfaces and remains of a clay bonded, stone wall foundation incorporated into a later brick-built structure. Post-medieval activity extended to depths of around 1.5m below current ground level.

An additional evaluation trench was excavated in 2017 (Bennett 2017). The trench revealed, what appeared to be, the line of the rampart with a possible stone revetment and the probable remains of associated ditch deposits, sealed by 1.80m of modern deposits and made ground.

1.4 OBJECTIVES

In general, the purpose of the investigation was to record and advance understanding of the significance of the heritage assets before they were lost. This would be achieved by determining and understanding the nature, function and character of any remains on the site, disseminating the results of that work and archiving the material and paper records.

The WSI specifically noted that archaeological investigations were carried out in order to:

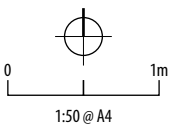
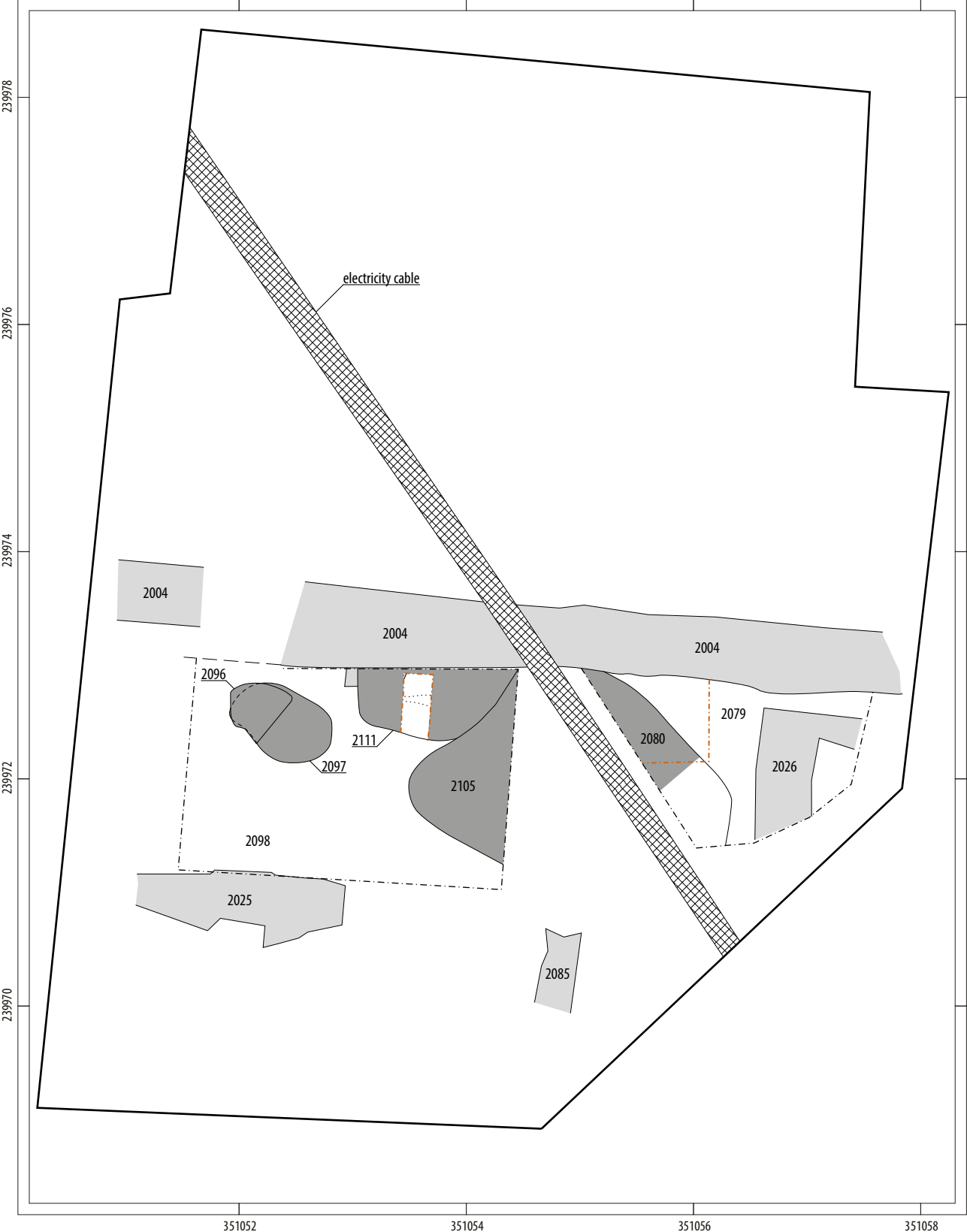
- › Identify and assess the extent, layout, structure and date of features and deposits of archaeological interest;
- › Place, where possible, the identified features within their local and regional context; and
- › To produce and deposit a satisfactory archive and disseminate the results of the work via grey-literature reporting and publication as appropriate.

The resulting archive (finds and records) will be organised and stored temporarily at Headland Archaeology premises until such time as arrangements for deposition with Hereford Museum Service are made to facilitate access for future research and interpretation for public benefit.

2 METHOD

2.1 MECHANICAL REMOVAL OF OVERBURDEN AND SUBSOILS

The planned excavation area measuring 64m² was reduced to 61m² to allow safe movement of plant and stand-off requirements from



- limit of excavation
- later structural remains
- archaeological feature
- modern
- sondage

ILLUS 3 Plan of discrete features in south of excavation area



ILLUS 4 Pit cut [2111], showing black deposit (2104), below foundation (2004), looking north

surrounding buildings. In line with WSI outlines and health and safety requirements, a combination of stepping and battering of the edge of the excavation area was undertaken. This produced a final, reduced area size of approximately 40m² at formation level which reached a maximum depth of approximately 1.50m below ground level (BGL) at around 56.05–56.10m AOD.

Mechanical removal of the tarmac ground surface and initial compacted, associated deposits was undertaken using a tracked 9 tonne, 360° excavator fitted with a toothed bucket. A bladed bucket was then used to excavate the site to the first archaeological horizon. Rapid recording of brick structural remains of post-medieval date was undertaken before continuing mechanical excavation, until further archaeological horizons or formation levels were reached. This work took place between the 17th and 20th July, with hand excavation of archaeological remains continuing until the 27th July 2018.

Archaeological features identified during machine stripping were surveyed using a Trimble dGPS system to produce a pre-excavation plan of the site.

2.2 RECOVERY OF FINDS

All artefacts and other finds from significant archaeological deposits were collected, identified by stratigraphic unit, catalogued and retained. Any finds considered to be typologically distinct or significant were assigned a small find (SF) number and the location of the find was recorded three dimensionally.

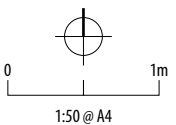
2.3 PALAEOENVIRONMENTAL SAMPLING

Identified deposits were assessed with regard to paleo-environmental sampling and potential contribution to further understanding of the site. Where deemed appropriate, bulk samples for flotation were recovered to assist interpretation of features and the site. A total of 8 environmental samples were recovered from the site.

2.4 RECORDING

All recording followed ClfA Standards and Guidance for conducting archaeological excavations (ClfA 2014).

- › A pro forma context record was completed for each stratigraphic unit.
- › A digital plan of the excavated area and features was produced using a Trimble dGPS unit.
- › Sections through stratigraphic units were hand-drawn at a scale of 1:10 with hand plans produced at 1:20.
- › A photographic record of all stratigraphic units comprised black-and-white prints supplemented by digital photographs.



- limit of excavation
- archaeological feature
- later structural remains
- modern
- sondage
- group 2118
- group 2119
- group 2120
- foundation 2026
- extrapolation of wall

- | | | |
|----------|----------|----------|
| ① 56.03m | ⑥ 57.12m | ⑪ 56.94m |
| ② 56.48m | ⑦ 55.95m | ⑫ 56.94m |
| ③ 55.91m | ⑧ 56.86m | ⑬ 56.22m |
| ④ 56.45m | ⑨ 56.71m | ⑭ 57.50m |
| ⑤ 56.12m | ⑩ 56.90m | ⑮ 57.59m |

ILLUS 5 Plan of medieval and early post-medieval remains



ILLUS 6 View of wall foundation (2026) looking north-east

ILLUS 7 North facing section of wall foundation cut [2065], Group 2119

ILLUS 8 General view of Group 2118 remains looking east



- › A diary record of the progress of the archaeological work was maintained, including details of liaison and monitoring meetings, visits and a record of the staff on site.

record sheets. A photographic record was compiled, and a record of the stratigraphic sequence made. Additional contexts identified commenced at 3000 to distinguish these from excavation records.

2.5 POST-EXCAVATION

To date the following post-excitation tasks have been completed:

- › All records have been checked and cross-referenced.
- › Contextual data has been entered onto a database.
- › A stratigraphic matrix has been compiled and phasing and grouping of features undertaken.
- › Photographic record has been developed and catalogued.
- › Entering of artefactual and ecofactual data onto a database.

2.6 WATCHING BRIEF

A watching brief was undertaken between the 21st and 28th August 2018 during final stripping of the western and eastern edges of the building footprint, excavation of piling areas and removal of foundations identified during the excavation to final formation level. Monitoring was conducted in line with ClfA guidance (ClfA 2014b) and recording undertaken on Headland Archaeology proforma

3 RESULTS

Results are presented below by archaeological phases and periods with the watching brief element of works summarised separately. A summary of all recorded contexts appears as Appendix 7.1.

Finds and environmental assessments are given as Appendices 7.2 and 7.3 respectively, with the site stratigraphic matrix given as Appendix 7.4.

3.1 GENERAL STRATIGRAPHIC SEQUENCE

Due to the requirement of stepping and battering the excavation area edges, the most complete record of the stratigraphic sequence was evidenced on the central, western edge of the excavation (Illus 2).

Potential medieval and early post-medieval yard soils eg (2038), (2056) lay below post-medieval surfaces, layers and structural remains. These were sealed by phases of structural remains and a number of reworked relatively later former ground surfaces or levelling deposits eg (2015), (2035) (2049).

Other than specific wall foundations, the remaining sequence was characterised by a demolition layer (2012) up to 0.50m thick and make up layers (2014) below the modern tarmac surface.

Typical of urban sites, variability in levels and form of made ground and dumped deposits associated with phases of demolition and construction were observed across the excavation area. No geological deposits were reached.

3.2 MEDIEVAL DEPOSITS AND FEATURES

The earliest dateable deposit encountered was represented by light, reddish brown silt clay and gravel (2079) exposed in the south-east of the excavation area and was encountered at around 56.10m AOD. Pottery, deriving from a single vessel, dating to the 12th century was recovered from the deposit.

A further gravel deposit (2098) was identified at a similar level to the west and may have been contiguous with (2079), though no dateable material was recovered. A small sondage excavated into (2098) revealed a relatively large quantity of sandstone fragments between 0.08 and 0.26m long, randomly distributed within the deposit.

Partially exposed in the south-east of the excavation area and cutting (2079), feature [2080] was recorded. It measured greater than 1.90m long and 0.46m wide, and had steep, almost vertical sides. The fill (2081) of the feature contained large amounts of charcoal fragments, with pottery of 14th to 15th century date recovered. Auguring of the deposit revealed it to extend to at least 0.60m depth. No particular function could be ascribed to the cut.

Partially exposed beneath a later wall foundation, a cut feature [2111] (Illus 3 & 4) measuring over 1.39m long and 0.59m wide, contained a sequence of three deposits. The earliest of these was a black, slightly clayey silt deposit (2104). Pottery dating to the 13th to 15th centuries and animal bone was recovered from the deposit. An environmental sample (ES008) identified a high density of charcoal, and abundant grain seeds, heavily burnt and fused which suggested the material had been in a fire. Straw was also present within the sample. Sealing this was a peat-like, organic deposit (2103) up to 0.06m thick. A small environmental sample (ES007) revealed an abundance of charcoal and grain, similarly burnt, but may have derived from the interface of the two deposits. A final fill (2102) comprised a dump of domestic debris, up to 0.17m thick, from which pottery of 14th to 16th century date was recovered, together with an iron knife, a probable blade and a bone tool. Mussel shell was also recovered from (2102).

Cutting the south-eastern edge of [2111], a probable cess pit [2105] extended below the excavation baulk. The initial deposit, a layer of greenish grey silty clay (2109) was identified as a cess deposit. An environmental sample (ES006) taken from the deposit contained cereal bran, a common indicator of cess, together with wild fruit seeds and fish bone. The top of the pit was encountered at approximately 56.50m AOD, the upper fills of which (2106), (2107), (2108) and (2110) appeared to be dumped deposits, capping or sealing the feature.

A 0.02m thick layer of light whiteish clay (2096) was recorded, partially capping a small area of greenish gravels (2097) within the

earlier gravel deposit (2098). This was identified and interpreted as phosphate staining of the gravel from possible former cess deposits. Similar phosphate stained gravel (2092) sealed by similar clay, heavily truncated and cut by a later wall foundation (2004), was identified in section to the west. The clay, (2096), was likely to represent Fuller's Earth.

3.3 MEDIEVAL STRUCTURAL REMAINS AND ASSOCIATED DEPOSITS (ILLUS 5)

Three phases of structural remains potentially dating to the medieval period were identified.

Group 2119

Located on the western side of the excavation area (Illus 5), Group 2119 comprised east-west and north-south wall foundations and the robbed out remains of a north-south oriented foundation trench (Table 1). The group appeared to define the eastern side and north-east corner of a structure, the remainder of which lay to the west of the excavation area.

TABLE 1 Group 2119 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2055=2075	Stone wall foundation	>0.90	0.30	E-W	55.90–56.30
2066	Fill of 2065	–	>0.75	–	56.61
2065	Robber/foundation cut	>1.00	0.75	N-S	56.61
2074	Stone wall foundation	>1.65	0.47	N-S	55.90–56.00
2112	Foundation cut	>1.65	0.47	N-S	55.90–56.00
2113	Primary foundation fill	>1.65	0.47	–	55.90–56.00

The two wall foundations, (2055) and (2074), were heavily disturbed; foundation (2055) had been re-used or incorporated into a later brick-built structure (see Group 2117, with foundation (2052) directly overlying it).

Foundation (2055) was aligned east-west and survived as a short stretch of stone wall, 0.90m long, projecting from the western baulk, which may have formed a 90-degree corner with foundation (2074).

The foundation cut for (2074), [2112], was visible in plan and filled by deposit (2113). A ceramic drain pipe had cut through foundation (2074) and stones had been replaced over the top of the pipe. Hand-made brick, dating from the 16th century, and clay pipe of later 17th century date, were recovered from disturbance associated with the recent drain cut from both (2055) and (2113). Foundation (2074) was truncated by a later, east-west stone wall foundation (2004).



ILLUS 9A Re-used dressed masonry within foundation (2004), Group 2120 **ILLUS 9B** Re-used dressed masonry within foundation (2004), Group 2120

Cut through sandy clay deposits (2063) and (2064), likely to represent former subsoil or yard soils, a probable foundation cut [2065] was observed in section; towards the southern extent of the site (Illus 7). The foundation was likely to have been oriented north-south with some roughly hewn, sub-angular sandstone blocks surviving within a heterogeneous backfilled deposit (2066). The cut aligned directly with foundation [2112], probably defining the continuation of foundation (2074) towards East Street.

Located immediately west of [2065] a narrow, vertical feature [2067] was recorded which contained a heavily iron-stained silty clay fill (2066) (Illus 7). The feature measured 0.37m deep and 0.05m wide and was interpreted as possibly a piled stake or decayed metal pole/spike of some form, possibly associated with the wall foundation.

Directly overlying foundation [2065] an east-west oriented stone wall foundation (2025) was recorded as part of a further probable structure, Group 2118 (Table 2).

In the western section of the excavation area, these foundations were observed to cut a charcoal rich deposit (2059) = (2077), either a dumped deposit associated with construction or a former yard type soil, from which ridge tile dating to the 13th to 15th centuries was recovered.

Various deposits were encountered across the area associated with the Group 2119 structural remains, the earliest of which were likely (2063) and (2064) and a potential contemporary similar deposit (2038) identified in the western edge of the excavation area.

Overlying deposit (2059) = (2077), was a further probable former yard soil or subsoil type deposit (2056) = (2076), which contained clay pipe dating to the later 17th century and roof-tile of 15th to 16th century date, in turn sealed by a setting deposit (2048) for a later metaled surface. Deposit (2050), from which 15th to 16th century tile was recovered, was identified toward the centre of the site and was also sealed by (2048) and may have been contemporary with (2056).

Group 2118

Stone foundation (2028) was partially exposed against the southern limit of excavation and along with (2025) appeared to demarcate the northern and eastern limits of a structure, probably fronting

onto East Street (Illus 8). Both foundations were heavily truncated with only a single course of stone remaining, bonded with a light pink clay.

TABLE 2 Group 2118 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2022=2087	Metaled surface	>2.82	>1.24	–	56.57–56.77
2025	Stone wall foundation	>1.82	0.50	E-W	56.70–56.90
2028=2085	Stone wall foundation	>0.73	0.32	N-S	56.74–56.94
2083	Stone floor surface	0.38	0.36	–	56.80
2084	Compacted surface	>2.00	>1.00	–	56.72

Laid on an approximately 0.12m thick, pink clay setting deposit (2121) and abutting the northern edge of (2025), a metaled surface (2022) comprising a single layer of rounded and sub-angular stones was encountered. The setting and slightly uneven nature of the stones suggested that the surface was external, rather than an internal floor and may have related to a rear yard surface associated with the group.

On the southern side of foundation (2025), a compacted sandy clay and gravel (2084), containing stone chips and charcoal fragment was identified, from which fragments of copper sheet were recovered. This deposit appeared to represent a setting deposit for partial former floor surface (2083), surviving as a small area of fragmentary sandstone slabs.

A layer (2027) of gritty, sandy clay, stained a brownish-green colour, probably indicating former cess content was identified partially below foundation (2025). An environmental sample taken from the deposit (ES005) identified an abundance of hammerscale and iron-working residues together with charcoal and burnt and unburnt

bone. Pottery and tile dating between the 13th and 16th centuries and animal bone was also recovered. A small discrete deposit of cess material (2082) was contained within the layer, a sample (ES003) which yielded a single cereal grain, shell, charcoal and hammerscale. The deposits are likely to have represented dumping of refuse. This was further truncated by a feature [2073] (Illus 5) thought to represent an internal drain associated with the structures forming Group 2118.

An environmental sample (ES002) taken from the drain's primary fill (2072) contained charcoal, fish bone, oyster shell and mammal. Pottery and tile of 13th to 15th century date, mortar fragments and probable iron-smithing residues were also recovered from the deposit. The upper fill (2071) also contained pottery and tile of 13th to 15th century date and iron-working residues. An environmental sample of the deposit (ES001) identified charcoal, oyster shell, cereal grains and bone, including fish bones.

Adjacent to foundation (2085) = (2028) a large vertical sided, sub-circular cut [2093] was partially exposed against the southern limit of the site and interpreted as a post-hole. A large, flat sandstone was placed in the base of the cut, probably acting as a pad-stone. The post-hole had been deliberately backfilled with a deposit predominantly derived from broken stone roof tiles and to a lesser extent, domestic detritus (2091). Pottery of 15th to 16th century date was recovered, together with animal bone and iron objects. The post-hole was quite substantial and may have been associated with the group, as part of a possible internal timber support or structural element. Overlying deposit (2091), a secondary dumped fill (2094) contained 13th–15th century tile and iron-working slag.

Sealing (2094) a dumped deposit (2086) was observed, extending beyond the limit of excavation to the south and measuring 0.70m north-south by 1.07m east-west. The deposit contained pottery and tile of 13th to 15th century date and was likely to be associated with demolition of a former structure.

The corner of a further stone wall foundation (2026) was exposed in the south-east of the excavation area (Illus 6), surviving variably to heights between 0.80 and 1.30m BGL (around 56.50m AOD). The foundation was exposed from north to south for a distance of approximately 1.10m, turning 90° to the east for a further 0.50m. The foundation extended beyond the limits of excavation to both the south and east and comprised, roughly hewn, variably sized sandstone blocks bonded with brownish-pink clay. The north-south section of the foundation measured 0.51m wide, narrowing to 0.30m in its east-west section. It survived largely in plan as a single course, at around 1.20 to 1.30m BGL. The foundation was located immediately south of a later foundation (2004) but did not abut or appear to have any relationship with this.

No specific foundation cuts could be identified to assist with stratigraphic or relative dating, with later demolition and dumped deposits overlying the foundations. However, its build, and the physical level of the foundations, similar to Group 2118 features, may suggest a medieval date.

3.4 PROBABLE EARLY – POST-MEDIEVAL REMAINS

Group 2120 (Illus 5)

Group 2120 was represented by a large east-west stone wall foundation (2004), a small north-south projecting stone foundation element (2047) and a metaled surface (2032) (Table 3).

TABLE 3 Group 2120 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2004	Stone wall foundation	>6.90	0.47–0.75	E-W	57.20–56.09
2032	Metaled stone surface	>1.89	1.32	–	56.59–56.05
2047	Probable Stone foundation	>0.30	0.75	N-S?	56.90–56.03
2048	Setting deposit for metaling 2032	>1.89	>1.32	–	56.50–56.00
2058	Foundation cut for 2004	>6.90	0.75	N-S	56.05
2095	Deposit – Probable foundation cut fill	>0.25	>0.29	–	56.00

Foundation (2004) displayed evidence of several phases of use incorporating re-used elements of earlier structural masonry, with dressed stone evidenced within its construction (Illus 9).

A section excavated across foundation (2004) revealed it to be marginally wider towards the base, around 0.85m wide, compared with 0.65–0.70m wide toward its top. Measuring a maximum of 1.02m in height, the lower 0.50m construction and coursing of the foundation comprised randomly placed, variable sized sandstone in a pink clay bonding material, forming a rubble core, giving way to larger sandstone blocks displaying evidence of ashlar or squared facing. This was suggestive of a more formal above ground build of squared stonework built to courses.

Two forms of bonding material were identified. Within the lower 0.50m, a pink clay bonding was evidenced, with a grey gritty sandy lime-based mortar in the upper half.

Set on a 0.20m thick clayey sand and pea gravel setting deposit (2048), a metaled surface (2032) (Illus 10) largely comprising rounded cobble stones was observed abutting (2004) on its northern side, between 0.40 and 0.50m below the upper course of the surviving foundation. The level of the surface coincided with the presence of the ashlar blocks, reinforcing the theory of the more formal, above ground build.

The surface itself was variably truncated but was visible along the entire length of the exposed foundation; extending beyond the limits of the excavation area to the east and west. The metaling



ILLUS 10 Plan view of metaling (2032), Group 2120



ILLUS 11 View of masonry, wall foundation (2004), Group 2120, looking south



ILLUS 12 View of keyed in probable foundation (2047), Group 2120, looking north

followed a gradual slope downward from south to north, from approximately 56.50m AOD to 56.00m AOD. The surface extended a maximum of 1.32m to the north, where it was truncated by (2005), a later, wall foundation. A dark, blackish gritty matrix was compacted into the surface with coal, cinder fragments and heavily abraded small fragments of ceramic building material observed. No dateable finds positively associated with the surface were recovered, however, it seems reasonable to assume that it formed yard or lane, to the rear of a property fronting East street.

Located towards the western end of (2004) the remnant of a structural element (2047) was observed keyed into (2004) which appeared to be oriented north-south (Illus 12). This was the only evidence of associated wall remains relative to (2004) and may have formed part of an internal element to any potential structure, though its function could not be determined.

Located on the northern side of (2004) and overlying a 0.10m thick layer of gritty white mortar mixed with lenses of black gritty sandy silt (2045), an east-west oriented, 0.17m wide line of variably sized stones (2043) were identified. This abutted the wall foundation and were interpreted as probable underpinning or support during re-use as a later wall foundation. The limited exposure and extent of the deposit precluded fuller understanding. Brickwork, built into and abutting the foundation, utilised a cement mortar. Similarly, later construction, Groups 2114 and 2116 in particular, utilised the pre-existing foundation, with brick mortared into the upper extent of the remains and north-south oriented brick foundations abutting it.

3.5 LATER POST-MEDIEVAL DEPOSITS AND FEATURES (ILLUS 14)

Discrete deposits and features

Truncating the earlier metaled surface (2032), a broadly circular cut [2031] was recorded in the north-east of the excavation area and identified as the remains of a former well. No lining or structure associated with the well's cut were identified, possibly suggesting this had been dismantled. A 0.70m deep machine sondage into the well identified two deposits (2030) and (2041) (Illus 13) representing deliberate backfilling. The bottom of the feature was not reached. More recent cultural material, including cement fragments and blocks, brick, broken glass bottles and white glazed ceramics were observed within the backfills but not retained. Part of a stone basin or trough was recovered from (2041), adhering to sides of the trough remnants of lime mortar were identified, suggesting it had been incorporated into a structure following its initial breakage. A clay pipe bowl from (2030) dated to the later 19th or early 20th century.

Within the southern half of the excavation area, a steep-sided, uneven based, broadly rectangular cut [2019], measuring 2.25 x 1.05m and 0.45m deep, truncated earlier metalled surface (2022). The cut was filled with dumped deposits (2020), (2042) and (2070) and likely associated with construction or demolition on the site. Deposits (2042) and (2070) appeared to be dumps associated with construction, whilst the upper fill (2020) contained high levels

of domestic waste, coal and cinders which extended beyond the edges of the cut.

Similar dumped deposits (eg 2037, 2078), containing modern or Victorian type glazed pottery were evidenced across the site.

Recorded towards the north-east extent of the excavation area and overlying the metalled surface (2032), a brownish grey deposit of gritty sandy clay and ceramic building material fragments (2035) was identified as made ground. Glass, bone, brick and white glazed ceramics were observed within the deposit but not retained. The deposit extended to the southern side of a brick foundation (2002) where it gave way to a similar deposit (2036), lying to the north of (2002) and continuing beyond the northern limit of the excavation area.

Group 2117

Group 2117 comprised the remains of brick wall foundations (Table 4) (Illus 14) observed in section on the western edge of the excavation area.

TABLE 4 Group 2117 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2052	Brick wall foundation	–	0.30	E-W	56.90
2060	Brick wall foundation	>0.50	0.30	E-W	57.08
2062	Brick wall foundation	>0.65	–	N-S	56.84

This group was formed of the truncated remnants of part of a brick-built structure which could not be positively associated with other foundations or surfaces identified on the site.

The limited nature of the exposed remains precluded full understanding.

Group 2116

Group 2116 (Table 5) comprised fragmentary brick wall foundations and surfaces encountered between 56.12 and 56.64m AOD, defining the remains of a heavily truncated structure (Illus 15). A mid-grey sandy clay (2049) was identified below brick surface (2034) and interpreted as probable made ground for setting of the surface. Modern ceramics were recovered from the deposit. The full extent of the structure was not evidenced and the high level of disturbance and demolition on the site rendered complete understanding difficult. However, spatially and stratigraphically, it appeared to

represent a distinct earlier phase of phase of building from Groups 2115 and 2114.

TABLE 5 Group 2116 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2029	Brick floor surface	1.87	1.23	–	56.64
2033	Brick well	C1m Ø	0.12	–	56.09–56.18
2034	Brick floor surface	1.20	>0.5	–	56.45
2039	Brick wall foundation	>0.50	0.22	E-W	56.40–56.53
2040	Brick foundation/surface	>0.56	>0.50	–	56.47–56.52
2046	Brick wall foundation	>0.36	0.23	N-S	55.71–56.12

Group 2115

Group 2115 (Table 6) comprised a ceramic tiled surface (2018) and brick wall foundation (2053) located toward the north-western corner of the excavation area.

TABLE 6 Group 2115 contexts

CONTEXT	TYPE	L (M)	W (M)	APPROX. M AOD
2018	Floor surface	>1.82	>1.64	56.81–7.04
2053	Brick wall foundation	>0.38	0.25	57.10

A dark grey gritty clayey sand (2061) dumped deposit, sealing the Group 2117 structural remains was overlain by a gritty, clayey sand (2054) which formed a setting deposit for the tiled surface. The tiled surface appeared to have abutted the earlier east-west stone foundation (2004) perhaps suggesting the re-use of the latter into the later structure.

Group 2114

The latest remains identified, Group 2114, comprised a series of east-west and north-south oriented brick wall foundations and associated cement surfaces (Table 7), between 0.35 and 0.50m BGL. The foundations appeared to define a multi-celled structure fronting onto East Street (Illus 16).

TABLE 7 Group 2114 contexts

CONTEXT	TYPE	L (M)	W (M)	ORIENTATION	APPROX. M AOD
2001	Brick wall foundation	1.36	0.23	N-S	57.10
2002	Brick wall foundation	4.23	0.28	E-W	57–57.10
2003	Brick wall foundation	1.95	0.22	N-S	57.13–57.30
2005	Brick wall foundation	>3.48	0.38	N-S	57.10–57.25
2006	Brick 'plinth/structure' base	0.87	0.65	–	56.95–57.05
2007	Brick wall foundation	3.19	0.22	E-W	56.90–57.30
2008=2023	Brick wall foundation	3.72	0.24	N-S	57.00–57.30
2009	Brick wall foundation	3.95	0.30	N-S	57.10–57.30
2010	Floor surface	1.70	0.93	–	57.07–57.15
2011	Floor surface	>1.66	>0.56	–	57.08–57.14
2013	Brick wall foundation	1.26	0.12	N-S	56.99–57.32
2016	Floor surface	4.01	2.26	–	57.00
2017	Floor surface	>1.06	>0.72	–	56.40–56.50
2069	Brick foundation	0.38	0.30	E-W	57.10

The remains of Group 2114 suggested a rectangular building fronting onto East Street, with a small rectangular room projecting from the northern end; likely functioning as an outhouse, with modern drains and pipes associated with the foundations. Surfaces were of cement construction, with no indication of tiling or brickwork. Foundations (2001), (2005) and (2008) abutted the earlier stone foundation (2004) and brickwork (2069) built into it suggested re-use of the stone foundation. Foundation (2005), to the north of (2004), also incorporated large sandstone blocks (Illus 15).

3.6 WATCHING BRIEF

A watching brief was undertaken during the final groundworks associated with the development, incorporating reduction of the eastern and western edges of the proposed dwelling footing and removal of the wall foundations identified during the excavation, for infilling of the area prior to construction. Similar, dumped deposits, made ground and disturbance was identified with no further archaeological remains or features identified which could assist with further understanding or wider interpretation of the site. Recorded contexts are given in Appendix 7.1.

4 DISCUSSION

The earliest deposits encountered were recorded at approximately 56.10m AOD, some 1.40m below the present ground surface, comprising gravels (2079) and (2098). These were similar in character to geological gravel deposits encountered in Hereford and are likely to represent redeposited and reworked material. Given the location and depth at which these were identified, it seems likely that the deposits derive from up-cast material originally forming part of the Saxon defensive rampart, or that they represent in situ rampart deposits. The former would appear more likely, with some degree of levelling having occurred, with sandstone, possibly originally related to revetment of the rampart, distributed variably through the gravels.

Pottery of 12th century date recovered from the gravels suggests an element of encroachment onto the rampart at this time, which would fit with the known development of the medieval town and the shift northward of the settlement. Deposits below the present ground and demolition layers (2014) and (2012), gradually sloped down to the north towards High Town, which does suggest a level of preservation of the original expression of the rampart and associated deposits. Whether East Street represented the line of the Saxon communication road or the crest of the defensive rampart cannot be answered from the results of this investigation.

Features associated with occupation during the 13th to 15th centuries were identified cut into the gravels in the form of a probable cess pit, probable refuse pits and deposits potentially associated with processing of textiles (see below). These features could not be positively related to any of the structural remains identified on the site, though it is highly likely that they were associated with structural remains in the immediate vicinity.

The earliest identified structural remains, were represented by stone-built wall foundations. No complete or full outline of a structure was identified with only partial remains and postulated extents and associations observed.

The earliest of these were likely to be foundation (2026) and Group 2119. No artefactual material could positively date the remains or provide indication of which of the two was the earlier building, but relative and stratigraphic dating indicates they are both likely to be of medieval date. Both were recorded at similar ordnance datum, between 56.00m and 56.50m AOD, with Group 2119 the slightly lower of the two, though this displayed a greater degree of truncation and incorporation into a subsequent, later build. Group 2118 was recorded at approximately 56.70m AOD and overlay part of the Group 2119 remains and indicated this was the later of the three sets of medieval structural remains identified.

Group 2119 consisted of north-south and east-west stone wall foundations, the position of which suggested a probable north-eastern corner of a building located below an electricity cable trench on the limit of the excavation area at the northern extent of the site. A foundation cut on a north-south alignment appeared to be the robbed out remains of the foundation in the southern extent of the site. In the absence of further associated remains, it seems likely that this represents the eastern extent and corner of a building.



ILLUS 13 View of sondage into well [2031] looking east

Foundation (2026) also appeared to represent a north-western corner of a structure, positioned more closely towards East Street.

The third medieval structure, Group 2118, evidenced an external, probable yard surface, which is likely to have been to the rear of the building, further suggesting all three buildings fronted onto East Street.

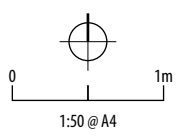
The relative positions of the three medieval structures are of interest. Group 2118 was likely to be the later of the three and overlay the eastern wall line of Group 2119, extending approximately 2.50m further east than Group 2119. Foundation 2026 was located approximately 4.00m west of the adjacent Booth Hall boundary and approximately 1.80m north of the rear of Group 2118. The rear of Group 2119 was approximately 2.50m further north than this. The positions of the structures would appear to indicate lateral shifting and changing of property boundaries during the medieval period. Similarly, the northern extents of the buildings vary, which may be reflective of changes in function or the wider and continuous development of the medieval town.

The position of foundation (2026), on the eastern extent of the site would also suggest that if the remains continued west, they would underlie the gravel paths identified during evaluation (Thomson 2016) and the course of the lane adjacent to the Booth Hall site, potentially indicating that this does not represent a fossilisation of the medieval layout of the town.

The most notable factor effecting the survival and full understanding of archaeological remains on the site was a high level of disturbance in the form of construction and demolition of multiple phases of structures. The most substantial layer or phase of demolition (2012) appeared to relate to the demolition of the final identified structure (Group 2114) and comprised largely brick debris, used to both raise and level the ground. The limited extent of the exposed area also precludes definitive association of structural remains, with wall foundations and surfaces only partially exposed. Most surviving features demonstrated high degrees of truncation, with some earlier foundations being incorporated into the foundations of later builds.

The high level of disturbance through repeated demolition and construction had also largely eradicated evidence of any foundation trench cuts associated with identified wall foundations and potentially caused high and variable levels of secondary deposition of dateable artefactual material, creating an element of problematic dating relative to the stratigraphy on the site. The requirement of stepping and battering across the site and presence of a large electrical cable trench added further difficulty to associating identified layers and deposits. That said, the stratigraphic matrix of the site (Appendix 7.4) correlated with the dateable material retrieved and relative associations made correspond with the matrix. The only obvious anomalous result being that of Group 2119, where a more recent or modern drain had been cut into an earlier foundation and redeposited material of 17th or 18th century date.

The artefact assemblage recovered from the site is indicative of both domestic and some industrial activity within the immediate



- limit of excavation
- archaeological feature
- group 2115
- group 2116
- group 2117
- modern
- sondage

① 57.15m	⑦ 57.05m	⑬ 56.12m	⑰ 57.79m	⑳ 57.14m
② 56.09m	⑧ 57.10m	⑭ 57.51m	⑱ 57.76m	㉑ 57.50m
③ 57.45m	⑨ 57.30m	⑮ 57.15m	㉒ 56.80m	㉒ 57.59m
④ 57.10m	⑩ 56.64m	⑯ 57.07m	㉓ 57.32m	
⑤ 57.04m	⑪ 56.15m	⑰ 57.30m	㉔ 57.30m	
⑥ 57.10m	⑫ 56.39m	⑱ 56.71m	㉕ 57.30m	

ILLUS 14 Plan of post-medieval remains



ILLUS 15 General view of foundation (2039), surface (2034) Group 2116 and foundation (2005), Group 2114, showing re-used masonry and relationship with earlier metaling (2032)

vicinity, with dumping of material occurring on the site. Slag and hammerscale recovered was strongly suggestive of metal-working, most probably smithing, with probable hearth cake fragments also recovered. The majority of such material was recovered from deposits which are likely to have post-dated Group 2119 and foundation (2026), more likely to have been associated with Group 2118 or later, suggesting that this may have been a later industry on the site in the medieval period.

Two deposits, (2096) and (2097) tentatively suggest potential textile processing, possibly during the earlier medieval phases of occupation. Fullers earth was identified as deposit (2096) and is commonly used in the processing of wool. The heavily phosphate stained deposit (2097) partially overlain by (2096) was not contained within a cut feature and unlikely to have related to a deliberate dump of cess. It is possible that this also represented the remains of the use of urine for the cleaning and/or processing of textiles or fleeces.

A cess pit [2105] is likely to have related to domestic occupation and ordnance datum, relative to the top of the cut of the pit, at approximately 56.50m, suggests a probable medieval date, probably associated with occupation of one of the three identified medieval structures on the site.

Burnt cereal grains, with a probable refuse pit [2111], appear to indicate the potential storage of grain on, or in close proximity to, the site. The grain had been subject to an intense fire and subsequently dumped within the pit. The burning is unlikely to have occurred in

situ, with no indication of heat affected soils in the vicinity or within the pit. Straw may also provide tentative suggestions that livestock, or provisions for livestock, were held in relatively close proximity.

Effectively forming a middle phase, wall foundation (2004) was originally a clay-bonded stone wall foundation of relatively substantial size which had been utilised in several phases of later building. Clay bonding of wall foundations is commonly found in Hereford in buildings constructed in the medieval period and it is tempting to suggest that any structure associated with foundation (2004) originated during that period. Positively dating the feature is problematic, largely due to its later re-use in several phases and the lack of any further associated wall foundations. The associated metaling on the northern side of the wall suggested a probable post-medieval date, the compacted material within the metaling similar in character to Victorian material identified elsewhere on the site, though no finds were identified to positively date the surface. However, the metaling may also relate to a later phase of the use of the foundation, in a similar fashion to the later brick surface (2029) also observed to abut (2004) as part of a later re-use.

Potentially critical to understanding foundation (2004) is the small keyed in element (2047) observed towards the western extent of the foundation. This did not extend south towards East Street, with no trace of foundation cuts and earlier wall remains in that area precluding any interpretation of a robbed out internal wall. Buttressing seems an unlikely interpretation given the limited nature of the stonework along with the likelihood of the element being



ILLUS 16 General view of Group 2114 remains, looking north

internal, rather than external, to the potential structure fronting East Street. This could suggest that the projecting stonework related to an internal support for some form of cellar or under-croft feature. No positive evidence of cellars was identified. However, the possibility of an entrance to a structure with a 'ground' floor above street level cannot be excluded from interpretations. This could go some way to explaining the keyed in element to (2004) and also perhaps explain the lack of any internal dividing wall foundations associated with the large east-west foundation; other than brick-built foundations, all traces of former internal arrangements having been raised, well above ground level. This is also likely to suggest a probable post-medieval date for the foundation, potentially Georgian, late 17th or earlier 18th century, possibly in a neo-Palladian style, with the first floor representing the principle floor of the structure.

To some degree, the absence of a structure positively identified with handmade brick of 16th or 17th century date is also anomalous. However, multiple phases of demolition and rebuild may simply have only left a few bricks within the overall debris as traces of a former structure of the 16th or 17th century. Foundation (2004) does however, appear to broadly mirror the rear of a structure identified on Taylor's 1757 map of the city, reproduced for the site heritage assessment (Richards 2017), though which phase of building identified on the site this relates to cannot be positively attested.

Dressed stone, reincorporated into the fabric of the foundation, is suggestive of a large stone-built structure on or near to the site at some point during its development, possibly in the earlier post-medieval period. The consistent re-use of (2004) within subsequent

structures may be indicative of the fossilisation of the land as a single plot from the post-medieval period to present day.

The position of a well [2031], seemingly cutting a metaled surface appeared to suggest that this was a later feature. However, it is entirely possible that this relates to much earlier phases of construction, with the metaling potentially constructed around the well superstructure at a later date. Backfilling of the well certainly occurred during the Victorian period or later and may have been replaced by a further well (2033), located further to the north and associated with the later buildings identified by Groups 2114, 2115 or 2116.

The Group 2114 wall foundations defined a former multi-celled structure, the outline of which appeared to match a building depicted on the 1859 Ordnance Survey, detailed within the heritage assessment of the site (Richards 2017). This was largely confirmed by a smaller northern cell, projecting from the rear of the main rectangular shape of the building and an adjacent north-south oriented foundation likely to represent a property boundary wall.

5 CONCLUSION

Archaeological investigations at High Town and East Street, Hereford, have identified evidence of deposits associated with the Saxon period defensive rampart, medieval structural remains and evidence of domestic and industrial occupation and use of the site between the 12th and 15th centuries. The structural remains identified suggest movement and development of property

boundaries during the medieval period, potentially reflecting the wider development of the town.

Post-medieval and later structural remains were also identified, some incorporating earlier foundations and stonework. Multiple phases of construction and demolition on the site have occurred, with no evidence of the full plan of any of the earlier structural remains surviving.

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7 APPENDICES

APPENDIX 1 CONTEXT SUMMARY

CONTEXT	GROUP	TYPE	DIMENSIONS (M)			SUMMARY INTERPRETATION
			L	W	D	
2000						
2001	2114	Structure	1.36	0.23	>0.20	Relatively modern – prob internal dividing wall in larger structure
2002	2114	Structure	4.23	0.25	C 0.25 min	Brick wall foundation
2003	2114	Structure	1.95	0.22	>0.15	Brick wall foundation
2004	2120	Structure	>6.9	0.75max	0.90	Re-used wall foundation – prob part of medieval building. Same as identified in eval?
2005	2114	Structure	>3.48	0.38	>1.00	Brick wall foundation- part of larger structure
2006	2114	Structure	0.87	0.65	C 0.20	Poss. Toilet or sink base in room in larger structure
2007	2114	Structure	3.19	0.22	>0.50	Poss internal single dividing wall. Thin skinned – poss. collar internal wall?
2008	2114	Structure	3.72	0.36	>0.20	Brick wall foundation
2009	2114	Structure	>3.30	0.29	>0.30	Wall foundation – part of larger structure incorporated into later building?
2010	2114	Structure	>1.70	0.93	–	Floor surface – poss. associated with larger structure onsite
2011	2114	Structure	>1.66	>0.56	>0.08	Setting deposit – poss. for cement slabs/floor surface
2012	–	Layer	Across entire area	Across entire area	0.50 max	Demolition debris, made ground
2013	2114	Structure	1.26	0.12	>0.25	Poss. Reinforcing 2009 – add on as part of restructuring?
2014	–	Layer	Across entire area	Across entire area	0.30	Tarmac and make up layers
2015	–	Deposit	Across entire area	Across entire area	up to 0.50	Possible levelled made ground – former 'garden' type soil
2016	2114	Structure	4.01	2.26	0.03/0.05	Floor of 'washroom'
2017	2114	Structure	>1.06	0.72	0.08 max	Prob. Former yard surface remnant
2018	2115	Structure	>1.82	>1.64	0.03	Post/med – late building surface
2019	–	Cut	2.27	1.05	0.45	Cut for dump deposit filled by 2020, 2070, 2042. Cuts through 2022 stone surface.
2020	–	Fill	2.27	1.05	0.25	Dump deposit of domestic waste material within 2019
2021	–	Deposit	1.04	1.45	0.15	Dump deposit of cobble stones + bricks
2022	2118	Structure	>2.82	>1.32	0.11	Metalled cobblestone surface
2023	2114	Structure	3.72	0.24	–	Same foundation as 2008 (See 2008)
2024	–	Deposit	3.10	1.35	0.40	See revised context sheet 2057
2025	2118	Structure	>1.82	0.40–0.50	0.19 max	Stone wall foundation – potentially associated with 2085 defining small structure fronting onto East street
2026	–	Structure	>1.10	0.51	0.47	N-S running foundation wall. Possibly Medieval
2027	–	Deposit	1.60	>0.75	0.09	Dumped deposit – cess and domestic waste
2028	2118	Structure	–	–	–	See 2085 (Same as 2085)
2029	2116	Structure	1.35	1.95	0.10	Brick floor surface. Poorly bonded
2030	–	Fill	1.49	1.38	Not excavated	Fill of 2031– dumped deposit
2031	–	Cut	1.49	1.38	>0.70	Probable well cut

CONTEXT	GROUP	TYPE	DIMENSIONS (M)			SUMMARY INTERPRETATION
			L	W	D	
2032	2120	Structure	>6.5	2.10	0.04–0.10	Metaled surface – Yard?
2033	2116	Structure	>0.70	0.12	Not excavated	Probable brick well lining
2034	2116	Structure	1.20	>0.50	–	Brick surface – prob floor
2035		Deposit	C. 2.00	3.00	0.10–0.15	Prob disturbed ground – redeposited during construction/demolition
2036		Deposit	>1.0	>6.00	0.12 min	Disturbed former ground surface
2037		Deposit	>1.0	1.01	0.29	Dump deposit of waste material
2038		Deposit	>2.00	–	0.41	Gritty silty clay deposit. Poss levelling layer?
2039	2116	Structure	>0.50	>0.42	Not excavated	Wall foundation
2040	2116	Structure	>0.56	C. 0.48	–	Brick wall foundation or floor surface
2041		Deposit	1.38	C. 1.20	>0.30	Fill of well cut – general infilling
2042		Fill	>0.97	>1.0	0.07	Mortar deposit. Poss. Association w/ 2045. Poss part of dump deposit 2020
2043		Structure	2.15	0.20	0.17 max	Probable 'revetting' wall foundation support
2044		Deposit	>2.00	>3.00	C. 0.15	Setting deposit for brick floor surface
2045		Deposit	1.40	up to 0.50	0.10 max	Poss mortar setting for former floor
2046	2116	Structure	0.36	0.23	0.10	Wall foundation – part of larger 'Victorian' building – internal wall
2047	2120	Structure	>0.30	0.75	0.90	Keyed in stone wall running N-S into 2004 wall. Later addition to E-W running wall 2004
2048		Deposit	>3.00	>2.1	0.20 max	Setting deposit for 2032
2049		Deposit	observed below	[2034]	Not excavated	Poss levelling, made ground for brick surface 2034
2050		Deposit	>1.6	–	0.17	Poss ground surface – assoc. With construction on site
2051		Deposit	>1.5	>1.00	>0.30	Probable buried subsoil
2052	2117	Structure		0.30	0.47	Wall foundation – part of former structure assoc. With 2062
2053	2115	Structure	>0.38	0.25	0.49	Wall foundation
2054		Deposit	>0.95	>1.0	0.11 max	Setting deposit for 2018
2055	2119	Structure	>0.90	0.30	>0.35	Wall foundation
2056		Deposit	>2	>1	>0.35	Prob former subsoil/yard soil
2057		Deposit	3.00	2.00	0.40	Dump of rubble/demolition material, stones may derive from a previous metalled surface
2058	2120	Cut	–	0.90	0.17	Probable foundation cut for wall 2004
2059		Deposit	>0.45	–	>0.18	Poss. Dumped material predating wall 2004 – poss. Assoc. with 2004 foundation
2060	2117	Deposit	>0.50	0.30	0.40	Probable foundation deposit – or infilling/stabilising between 2053 + 2004
2061		Deposit	0.85	–	0.09 max	Dumped deposit
2062	2117	Structure	0.65	–	0.15 max	Poss wall foundation – primary foundation core
2063		Deposit	>1.38	–	>0.25	Possible previous subsoil
2064		Deposit	>1.34	–	0.16	Layer of material directly overlies 2065. Poss previous soil horizon or material related to construction of building nearby
2065	2119	Cut	>1.00	0.75	>0.46	Cut, probable cut of robber trench over line of previous wall
2066	2119	Fill	>0.50	0.75	>0.46	Fill of robber trench, probably backfill after robbing.

CONTEXT	GROUP	TYPE	DIMENSIONS (M)			SUMMARY INTERPRETATION
			L	W	D	
2067		Cut	0.39	–	0.49	Cut of possible posthole, possibly related to construction of building
2068		Deposit	0.39	–	0.49	Fill of possible post hole. Possibly backfill after removal of post
2069	2114	Structure	0.38	0.30	0.47	Brick wall, built into stone wall 2004
2070		Fill	–	0.54	0.17	Deposit of dumped waste material within 2019
2071		Fill	>0.50	0.53 max	0.23 max	Upper fill of 2073 – poss. dumped material in drain
2072		Fill	>0.50	0.23	0.14	Primary fill of cut 2073
2073		Cut	>0.50	0.53	0.37	Probable drain cut related to earlier structure – poss. re-use of former foundation as drain
2074	2119	Structure	>1.65	0.47	>0.15	Possible N-S running wall foundation
2075	2119	Structure	–	–	–	See 2055 (duplication)
2076		Deposit	–	–	–	See 2056 (duplication)
2077		Deposit	–	–	–	See 2059 (duplication)
2078		Deposit	>0.40	>0.36	>0.23	Dump of Victorian waste + building rubble within confines of wall 2026
2079		Deposit	>1.50	>1.30	>0.20	Layer of material, purpose unclear. Could be related to Saxon rampart, perhaps upcast from ditch
2080		Cut	>1.90	>0.46	>0.34	Cut of poss. pit, purpose unclear. May well be a well, although this is not clear. Auger depth would not suggest a well
2081		Fill	>0.90	>0.30	>0.34	Fill of possible pit feature. Origin/formation unclear possibly dump of waste material
2082		Deposit	0.16	0.15	0.05	Discrete cess like deposit within 2017
2083	2118	Structure	0.38	0.36 max	0.04/0.05	Remnant of floor surface
2084		Deposit	>2.00	>1.00	C.0.15	Compacted surface resulting from floor surface above – probably imported/construction related ground stabilising over clays.
2085	2118	Structure	>0.73	0.31	0.13	Wall foundation – lower courses only surviving
2086		Deposit	1.07	0.70	0.05–0.10	Prob dumped deposit or disturbed former occupation material – re-worked as levelling – most likely dumped detritus
2087	2118	Deposit	–	>1.16	0.13	Possibly remains of metalled surface. Probably same as 2022 but cut through by 2019
2088		Fill	–	0.74	0.07	Dump of mortar in waste pit. Potentially related to nearby construction
2089		Cut	–	>0.05	>0.35	Cut of feature, purpose unclear. Could be cut for a post or pipe. Iron staining in fill may be related to its purpose. Poss. Related to 2065 due to similarity of fills and proximity
2090		Fill	–	0.05	>0.35	Fill of 2089. Possibly decay of metal/ metal object within the cut. May also form from infilling of the cut and subsequent leaching in of Fe rich material
2091		Fill	>0.39	0.70	0.41	Dumped deliberate infilling of 2093 with waste + debris probably associated with demolition/taking down of a structure
2092		Deposit	–	0.20	0.25	Deposit of cess related material that appears to have been tipped up against wall 2004
2093		Cut	>0.39	0.70	0.49	Probable post hole
2094		Fill	>0.39	0.70	0.09	Upper fill of 2093 – dumped deposit
2095		Deposit	>0.25	>0.28	>0.09	Silty clay deposit abutting base of stone wall 2004
2096		Deposit	>0.42	>0.50	0.02	Thin layer acting as a seal over cess material 2097 or could be a part of the cess related material

CONTEXT	GROUP	TYPE	DIMENSIONS (M)			SUMMARY INTERPRETATION
			L	W	D	
2097		Deposit	>0.45	>0.45	0.11	Cess deposit remnants that appears to have leached down in deposit 2098 leaving only a phosphate staining
2098		Deposit	>1.64	>0.47	>0.07	Gravelly silty clay deposit. Poss dump layer. An area of the deposit affected by phosphate staining from cess related material 2097 leaching through
2099		VOID	VOID	VOID	VOID	Void
2100		Wood	>0.060	0.22	0.06	
2101		Deposit	>1.3	>0.55	0.12	Prob related to construction of 2004. Disturbed mixed material
2102		Fill	>1.3	>0.5	0.17 max	Fill within 2104 – prob dumped deposit – deliberate backfill
2103		Fill	C. 0.9	0.40 max	0.06	Initial fill in 2104
2104		Fill	>1.3	>0.59	DGPS	Organic rich primary fill of feature 2111
2105		Cut	1.40	>1.02	–	Cut of cess pit
2106		Fill	1.40	–	0.07	Fill in cess/waste pit, possibly building demolition rubble. Could be some form of lining
2107		Fill	–	–	–	Layer of cess within cess pit
2108		Fill	>0.70	1.02	–	Layer of dumped material + cess in cess pit
2109		Fill	–	–	–	Layer/dump of cess in cess pit
2110		Fill	1.13	0.87	–	Deposit of clay probably sealing of cess pit 2105
2111		Cut	>1.3	>0.59	C 0.50	Indeterminate function cut – poss. Assoc. with a former structure – drain?
2112	2119	Cut	>1.65	0.47	>0.15	
2113	2119	Fill	>1.65	0.47	C. 0.15	Fill in foundation trench 2112
2114		Group				Structural remains
2115		Group				Structural remains
2116		Group				Structural remains
2117		Group				Structural remains
2118		Group				Structural remains
2119		Group				Structural remains
2120		Group				Structural remains
3000		Deposit	–	>1.00	0.16	
3001		Deposit	–	>1.00	0.60	
3002		Deposit	–	>1.00	>0.40	
3003		Deposit	>0.50	>1.00	0.40	
3004		Cut	>0.50	>1.00	0.40	
3005		Surface	–	>3.00	0.12	
3006		Deposit	>2.00	>3.00	0.38	
3007		Surface	–	>0.65	0.12	
3008		Structure	>2.10	0	0.10	
3009		Deposit	>2.00	>3.00	0.16	

APPENDIX 2 FINDS ASSESSMENT

Introduction

The finds assemblage numbered 93 sherds (1.450kg) of pottery, 32 metalwork finds, 18 sherds of clay pipe, two bone objects, one stone object, 15 sherds (13g) of fired clay or daub, 34 sherds (3.165kg) of brick or tile, less than 0.5g of building material and 1.583kg of industrial waste. These were found in 23 separate features. The medieval, post-medieval and modern periods are represented. The finds are summarised by feature in Table A2.1 and a complete catalogue is given at the end.

TABLE A2.1 Summary of finds assemblage by feature with spot dating

FEATURE	POTTERY (MEDI)		POTTERY (MOD)		METALWORK	CLAY PIPE	BONE OBJECT	STONE	FIRE CLAY/ DAUB	BRICK/TILE	BUILDING MATERIAL	INDWASTE	SPOT DATE		
	COUNT	WGT (G)	COUNT	WGT (G)	COUNT	COUNT	COUNT	COUNT	COUNT	WGT (G)	WGT (G)	WGT (G)			
wall foundation [2004]	–	–	–	–	–	5	–	–	–	–	–	–	L17th–e18th		
dump deposit (2019)	–	–	–	–	–	8	1	–	–	–	–	380	PM, Mod		
deposit (2027)	16	119	–	–	2 (Fe)	–	–	1	–	1	87	–	14th–15th		
feature [2031]	–	–	–	–	–	1	–	–	–	–	–	–	19th–e20th		
deposit (2049)	–	–	2	34	–	–	–	–	–	–	–	–	19th		
deposit (2050)	–	–	–	–	–	–	–	–	–	1	38	–	15th–16th		
wall foundation [2055]	–	–	–	–	–	–	–	–	–	1	1390	–	PM		
deposit (2056)	–	–	–	–	–	1	–	–	–	1	17	–	17th		
deposit (2057)	4	140	–	–	–	1	–	–	–	–	–	–	17th		
deposit (2059)	–	–	–	–	–	–	–	–	–	3	167	–	m13th–15th		
drain? [2073]	11	59	–	–	1 (Fe)	–	–	–	1	<0.5	4	62	<0.5	587	m13th–15th
deposit (2079)	6	52	–	–	–	–	–	–	–	–	–	–	–	12th?	
feature [2080]	4	19	–	–	–	–	–	–	–	1	<0.5	–	20	14th–15th	
deposit (2082)	1	2	–	–	–	–	–	–	–	–	–	–	13	m13th–15th?	
deposit (2084)	–	–	–	–	6 (Cu)	–	–	–	–	–	–	–	–	?	
deposit (2086)	5	27	–	–	–	–	–	–	1	1	15	574	–	9	m13th–15th
feature [2089]	–	–	–	–	–	–	–	–	–	–	–	–	75	?	
post-hole [2093]	2	6	–	–	3 (Fe)	–	–	–	–	–	4	176	–	294	15th
deposit (2098)	–	–	–	–	–	–	–	–	–	–	–	–	21	?	
deposit (2101)	5	74	–	–	1 (Fe)	–	–	–	–	–	–	–	–	–	15th–16th
cess pit [2105]	–	–	–	–	6 (Cu)	–	–	–	1	7	1	11	–	8	Medi?
feature [2111]	37	918	–	–	2 (Cu), 11 (Fe)	–	1	–	12	5	1	47	–	9	15th
foundation [2112]	–	–	–	–	–	2	–	–	–	–	1	596	–	–	17th
Total	91	1,416	2	34	32	18	2	1	15	13	34	3,165	<0.5	1,583	–

Methodology

The report includes both hand-collected finds and those from sample retents. The finds were collected, processed and packaged for long term storage in accordance with professional guidelines (ClfA 2014; Watkinson & Neal 1998). The finds were each assessed and recorded by appropriate specialists. The resultant data was then drawn together into one MS Access database. A copy of this data is given at the end of the report.

The pottery was examined visually, using x20 magnification where necessary. It was recorded according to standards set out by specialist bodies (Barclay et al 2016; Slowikowski 2001). The medieval pottery and ceramic building material were recorded using the fabric codes of Vince (1985a, 1985b).

Results

Medieval pottery

The medieval pottery assemblage comprises 91 sherds (1.416kg) and was retrieved from 10 features. More than half is made from Malvernian fabric B4, and the range of fabrics is very limited overall. Forms include jugs, cooking pot/jars and bowls.

TABLE A2.2 Medieval pottery type series (Vince 1985a)

FABRIC CODE	FABRIC	DATING	SHERDS	WGT (G)
A3?	Hereford	13th	1	6
A5/A6	Hereford	m13th–15th	3	26
A7b	Hereford	m13th–15th	22	103
B1	Malvernian	12th–14th	15	205
B4	Malvernian	14th–16th	50	1,076
Total	–	–	91	1,416

A 12th century Malvernian cooking pot from deposit (2079), comprising six sherds, is the earliest pottery from the site and is likely the earliest context. The remaining pottery covered a range from 13th–16th centuries, a date range which is echoed by the ceramic building material. A plausible case can be made for some contexts dating to the 14th century.

There were few form sherds, making it difficult to refine the pottery chronology. There is too little pottery to gain a coherent picture of the site, however, the pottery seems to be fairly routine for Hereford.

Modern pottery

The modern pottery assemblage amounts to two sherds (34g), both retrieved from deposit (2049). These comprise of a burnt fragment of whiteware and a fragment of red earthenware. They are both modern in date.

Metalwork

A total of 32 fragments of metalwork, probably deriving from 18 objects, four of copper alloy and 14 of iron. These were found in seven features, most from the medieval midden deposits in feature [2111].

The copper alloy objects comprise a fragmented strip, a piece of fragmented sheeting and a pin and a possible mount. The pin has a wound, spherical stamped head and is probably 15th century or later in date. The other finds are undiagnostic of date.

The most distinctive of the iron finds is a possible chain represented by five fragments of round links, approximately 16mm in diameter. The remains of a knife with a wooden handle were also recovered from the same feature [2111]. Other finds include possible blade fragments and nails. One piece of shaft is very corroded but shows traces of copper plating. It is conceivably part of a padlock, though conservation would be needed to reveal more detail.

Clay pipe

A total of 18 sherds of clay pipe bowl and stems were retrieved from six features. The majority of the fragments are post-medieval in date, with datable bowls ranging from the mid-17th to early 18th century (Peacey Types G, E, M, Peacey 1985, M8.A8). One bore the wheel heel stamp, commonly used by Hereford makers at that time (Peacey 1985, M8.A14, no 8). The wide bore of most of the stems indicates they are also of probable 17th century date.

Bone

A singular button made of bone and a possible bone tool were retrieved from dump deposit [2019] (2020) and feature [2111] (2102), respectively. Bone buttons were commonly used in the 18th and 19th centuries and were a common feature in clothing until the late 19th century (Peacock 1978, 56). The possible tool comprises a long bone fragment which is forked at one end, though its intended purpose is not clear and it bears no use wear.

Coarse stone

A fragment of sandstone roof tile was retrieved from late medieval deposit (2027).

Fired Clay

Fragments of fired clay or daub amounting to 15 sherds (13g) were retrieved from four features. The assemblage mainly comprises small, undiagnostic sherds.

Brick and Tile

A total of 34 sherds (3.165kg) of brick and tile were retrieved from 12 features. The majority of the assemblage (29 sherds) is of the Hereford A7 fabric dating from the mid-13th to 15th century. Most of the sherds derived from ridge tiles, including a crested ridge tile with a triangular, knife-cut crest.

The remaining five sherds (2.088kg) were of B4 fabric type, and include three fragments of flat roof tile, dating from the 15th–16th century, and two handmade bricks. The presence of Malvernian brick is unusual, however, the remaining tile assemblage is typical for the area.

Building Material

A total of four small fragments of mortar, weighing less than 0.5g, were retrieved from possible drain [2073] (2071).

Industrial waste

Slag and magnetic residues comprising 1.583kg were retrieved from 11 features. The slag fragments are very dense and are likely to be products of a hearth base as a result of smithing. The magnetic residue collected has frequent possible hammerscale and slag spheres, with heavier concentrations found in deposit (2027) and possible drain [2073] (2071) and (2072). Hammerscale and slag spheres are created during smithing or smelting, and it is likely that these were formed by smithing in the area.

A stone with a green glassy deposit on the surface was also retrieved from deposit (2086). This may be a fragment of glaze or possible glass waste.

Discussion

The majority of the finds are medieval, with the earliest of 12th century date and the majority of datable finds spanning the mid-13th to 15th centuries. The finds represent typical urban midden, including pottery, metalwork, industrial waste and building materials. The best of the medieval finds were recovered from feature [2111] which contained approximately half the assemblage from the site, including many of the more interesting and well-preserved finds. Almost all of the material in this feature could have been deposited in the 15th century, though a longer period of deposition is possible.

Some deposits are also clearly of post-medieval date as evidenced by the presence of clay pipes and other later finds.

Recommendations for further work

A lack of any feature sherds from the pottery assemblage limits any further work on narrowing a date, though radiocarbon dating may refine it as could reviewing the dating evidence in conjunction with the site stratigraphy. Feature [2111] is of some interest and could be looked at in further detail. Conservation work on some of the metalwork (for example the knife and copper-plated object both from (2102)) might reveal more detail to aid identification and illustration, though this is unlikely to provide more refined dating evidence. Were the site to be published, it is recommended a short report be included on the finds.

Recommendations for archive

It is recommended that the medieval and post-medieval finds be kept for archive. The industrial waste, mortar and fired clay could be discarded if there is no further work to be done on the site. The archive has been prepared in accordance with professional standards (AAF 2011) and the specific requirements of Herefordshire Museum Service (HMS 2016).

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Appendix 2.1 Finds catalogue

CONTEXT	SF	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
2004	-	-	5	10	Clay Pipe	bowl	Fragments, three pieces fit together, Peacey type M, second bowl fragment with rouletting	1660-80
2020	-	-	8	36	Clay Pipe	bowl & stem	Complete bowl with 'RG' stamp, crown above, Peacey type M, Welsh borders, one modern bowl fragment with moulded seam, six wide bore stems	1660-80, L18th-e20th
2020	-	-	1	1	Bone Object	button	Sunken dish, four holes, diam 17mm	PM-Mod
2027	-	5	1	1	Iron	nail	Small, complete	-
2027	-	5	1	36	Iron	object	Amorphous lump	-
2027	-	-	1	1615	Stone	tile	Sandstone fragment, 20mm thickness	-
2027	-	5	-	114	Industrial Waste	slag	Dense	-
2027	-	5	-	53	Industrial Waste	mag res	Possible hammerscale and slag spheres, fairly frequent	-
2027	-	5	10	44	Pottery (Medi)	A7b	Jug; thumbled base, trace of some tan glaze and cu speckles	m13th-15th
2027	-	-	2	32	Pottery (Medi)	A7b	Jug; thumbled base, some olive glaze	m13th-15th
2027	-	-	1	6	Pottery (Medi)	A7b	Jug; ext tan glaze cu speckles	m13th-15th
2027	-	5	1	8	Pottery (Medi)	B4	Cooking pot/jar; some external soot	14th
2027	-	5	1	5	Pottery (Medi)	B4	Cooking pot/jar; sooted	14th?
2027	-	-	1	24	Pottery (Medi)	B4	Jug; exterior thin patchy olive glaze and purplish surface	m14th-16th
2027	-	-	1	87	CBM	ridge tile	A7 fabric, patchy olive glaze	m13th-15th
2030	-	-	1	10	Clay Pipe	bowl	Decorated bowl with diamond pattern	19th-e20th
2049	-	-	1	32	Pottery (Mod)	Modern Red Earthenware	Unglazed rim sherd, two incised lines on surface, possible flower pot	1700-1900
2049	-	-	1	2	Pottery (Mod)	Modern Whiteware	Burnt rim sherd, blue transfer print	1800+
2050	-	-	1	38	CBM	roof tile	B4 fabric	15th-16th
2055	-	-	1	1390	CBM	brick	B4? Fabric; highly micaceous surfaces, no sandy face, even orange-brown colour; 56mm thick, w 105mm x 1140mm+	16th+
2056	-	-	1	11	Clay Pipe	bowl	Bulbous bowl, Peacey type E	1650-80
2056	-	-	1	17	CBM	roof tile	B4 fabric	15th-16th
2057	-	-	1	5	Clay Pipe	stem	Wide bore	L16th-E18th
2057	-	-	4	140	Pottery (Medi)	B4	Jar?; very battered, no external surface remaining and most of dull olive glaze, worn away on interior	15th-16th
2059	-	-	1	112	CBM	ridge tile	A7 fabric, olive glaze, reduced fabric	m13th-15th
2071	-	1	4	0	Building Material	mortar	Small fragments	-
2071	-	1	-	209	Industrial Waste	slag	Dense	-
2071	-	1	-	21	Industrial Waste	mag res	Possible hammerscale and slag spheres, fairly frequent	-
2071	-	-	1	6	Pottery (Medi)	A3?	Jug; pale olive glaze, cu speckles	13th
2071	-	-	1	46	Pottery (Medi)	B1	Cooking pot/jar; in-turned rim	1250-1300
2071	-	-	2	61	CBM	ridge tile	A7 fabric, patchy olive-tan glaze	m13th-15th
2071	-	1	2	1	CBM	roof tile?	A7 fabric	m13th-15th

CONTEXT	SF	SAMPLE	QTY	WGTT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
2072	-	2	1	2	Iron	object	Small amorphous lump	-
2072	-	-	-	69	Industrial Waste	slag	Dense	-
2072	-	2	-	259	Industrial Waste	slag	Dense	-
2072	-	2	-	29	Industrial Waste	mag res	Possible hammerscale and slag spheres, fairly frequent	-
2072	-	2	3	0	Pottery (Medi)	A7b	Unknown form	m13th–15th
2072	-	2	1	3	Pottery (Medi)	B1	Cooking pot/jar	Medi?
2072	-	2	5	4	Pottery (Medi)	B4	Glazed, too small to ID	Medi?
2072	-	2	1	0	CBM	fired clay	Hard sandy	-
2077	-	-	1	38	CBM	ridge tile	A7 fabric, glossy olive glaze	m13th–15th
2077	-	-	1	17	CBM	ridge tile	A7 faric, glossy olive glaze, reduced fabric	m13th–15th
2079	-	-	6	52	Pottery (Medi)	B1	Cooking pot/jar; black fabric, early rim form	12th?
2081	-	4	-	19	Industrial Waste	slag	Dense	-
2081	-	4	-	1	Industrial Waste	mag res	Possible hammerscale, fairly frequent	-
2081	-	4	1	2	Pottery (Medi)	A7b	Jug; yellowish glaze cu speckles	m13th–15th
2081	-	4	1	2	Pottery (Medi)	A7b?	Jug; pale olive glaze cu speckles	m13th–15th
2081	-	4	1	0	Pottery (Medi)	B4	Unknown form	m14th–16th
2081	-	4	1	15	Pottery (Medi)	B4	Cooking pot/jar; in-turned rim	14th
2081	-	4	1	0	CBM	fired clay	A7 fabric	m13th–15th
2082	-	3	-	11	Industrial Waste	slag	Dense	-
2082	-	3	-	2	Industrial Waste	mag res	Possible hammerscale and slag spheres, fairly frequent	-
2082	-	3	1	2	Pottery (Medi)	A7b	Unknown form	m13th–15th
2084	1	-	6	5	Copper Alloy	sheeting	Fragments of sheeting, one edge present, bronze diseased	-
2086	-	-	-	9	Industrial Waste	glass waste	Stone with green, glassy deposit on surface	-
2086	-	-	2	10	Pottery (Medi)	A5/A6	Jug; ext olive glaze	m13th–15th
2086	-	-	1	10	Pottery (Medi)	A7b	Jug; tan glaze, cu specks, incised hrizontal line	m13th–15th
2086	-	-	1	4	Pottery (Medi)	A7b	Jug; olive glaze cu speckles	m13th–15th
2086	-	-	1	3	Pottery (Medi)	B4	Unknown form	Medi?
2086	-	-	1	1	CBM	fired clay	-	-
2086	-	-	1	118	CBM	ridge tile	A7 fabric, crested ridge tile; knife-cut triangular crest, thin, partial, glossy olive-tan glaze, no abrasion (see Vince 1985a fig. 60, 3)	m13th–15th
2086	-	-	1	48	CBM	ridge tile	A7 fabric, very battered, no external surface remaining	m13th–15th
2086	-	-	13	408	CBM	ridge tile	A7 fabric, abraded, patches of thin olive glaze, 4 large sherds, remainder just small 'flakes'	m13th–15th
2088	-	-	-	380	Industrial Waste	slag	Dense	-
2090	-	-	-	75	Industrial Waste	slag	Possible hearth cake fragments?	-
2091	-	-	1	6	Iron	nail	Shaft	-
2091	-	-	2	28	Iron	blades?	Both tapering to a point, wider and flatter than nails	-
2091	-	-	2	6	Pottery (Medi)	B4	Small jug/bottle; unglazed	15th–16th

CONTEXT	SF	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
2094	-	-	-	294	Industrial Waste	slag	Dense	-
2094	-	-	1	92	CBM	ridge tile	A7 fabric, thin tan glaze with cu specks	m13th-15th
2094	-	-	3	84	CBM	ridge tile?	A7 fabric, very abraded, some olive glaze remaining	m13th-15th
2098	-	-	-	21	Industrial Waste	slag	Dense	-
2101	-	-	1	6	Iron	nail	Shaft	-
2101	-	-	1	28	Pottery (Medi)	B4	Jar?; heavy exterior soot, incised horizontal lines, same vessel as from (2102)	15th-16th
2101	-	-	3	26	Pottery (Medi)	B4	Jug?, possibly a bottle, unglazed, patchy external colour	m14th-16th
2101	-	-	1	20	Pottery (Medi)	B4	Jug/jar, some exterior tan glaze spots	15th-16th
2102	-	-	2	19	Iron	nail	One with large square head	-
2102	-	-	1	57	Iron	knife	Shaft comprising mineralised wood, simple handle with squared end, complete but broken in three pieces	-
2102	-	-	1	30	Iron	shaft	Copper alloy plated, triangular shaft, possible blade?, large rock attached to item	-
2102	3	-	1	4	Bone Object	tool?	Fragment of long bone with forked end, possible tool?	-
2102	-	-	1	14	Pottery (Medi)	B1	Cooking pot/jar; burnt, in-turned rim	14th
2102	-	-	3	83	Pottery (Medi)	B4	Bowl; external soot, internal worn yellow glaze, cu speckles	m14th-16th
2102	-	-	1	58	Pottery (Medi)	B4	Bowl; thin internal yellow glaze, cu speckles, heavy external soot, joins with bowl from (2104)	m14th-16th
2102	-	-	2	85	Pottery (Medi)	B4	Bowl; burnt, internal olive glaze, cu speckles	m14th-16th
2102	-	-	1	5	Pottery (Medi)	B4	Cooking pot/jar; burnt?, external soot	14th-15th
2102	-	-	1	67	Pottery (Medi)	B4	Jar?, heavy external soot, patch of central internal soot, incised horizontal lines	m14th-16th
2102	-	-	1	18	Pottery (Medi)	B4	Jar?; trace of thin internal glaze	15th-16th
2102	-	-	1	16	Pottery (Medi)	B4	Jar?	15th-16th
2102	-	-	1	11	Pottery (Medi)	B4	Jug; thin yellowish glaze, cu speckles	m14th-16th
2102	-	-	1	3	Pottery (Medi)	B4	Jug; ext orange/tan glaze, cu speckles	m14th-16th
2102	-	-	1	25	Pottery (Medi)	B4	Jug?; yellow glaze, cu speckles, runs of olive glaze	m14th-16th
2102	-	-	1	47	CBM	roof tile	B4 fabric	15th-16th
2103	-	7	1	0	Copper Alloy	mount?	Very small round mount, with integral rivet in centre	-
2103	-	7	5	4	Iron	chain links?	Small rings, possibly links from a medium weight chain	-
2103	-	7	1	3	Iron	nail	Shaft	-
2103	-	7	-	3	Industrial Waste	slag	Dense	-
2103	-	7	-	4	Industrial Waste	mag res	Possible hammerscale and slag spheres	-
2103	-	7	1	1	Pottery (Medi)	A7b	Jug; pale olive glaze cu speckles	m13th-15th
2103	-	7	1	1	Pottery (Medi)	B4	Cup?, internal and external olive glaze with dark streaks, poss part of lobed cup	15th-16th
2103	-	7	2	1	Pottery (Medi)	B4	Jug; external tan glaze, cu speckles	m14th-16th
2103	-	7	1	4	Pottery (Medi)	B4	Lobed cup; internal and external dark green glaze, yellow in patches	15th-16th
2103	-	7	6	0	CBM	fired clay	-	-

CONTEXT	SF	SAMPLE	QTY	WGHT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
2104	-	8	1	0	Copper Alloy	pin	Wound spherical stamped head, shaft broken	PM
2104	-	8	1	9	Iron	object	Possible nail head, covered in soil concretion	-
2104	-	8	-	2	Industrial Waste	mag res	Possible hammerscale and slag spheres	-
2104	-	8	-	0	Industrial Waste	slag?	Light vesicular fragments	-
2104	-	8	1	16	Pottery (Medi)	A5/A6	Jug; ext tan glaze	m13th–15th
2104	-	8	3	28	Pottery (Medi)	B1	Cooking pot/jar; wheel-thrown?	14th?
2104	-	-	3	62	Pottery (Medi)	B1	Cooking pot/jar; slightly burnt?	1250–1300
2104	-	8	1	9	Pottery (Medi)	B4	Burnt	m14th–16th
2104	-	8	1	103	Pottery (Medi)	B4	Burnt, interior glaze, speckles	m14th–16th
2104	-	8	1	5	Pottery (Medi)	B4	Burnt, some glaze	m14th–16th
2104	-	-	1	162	Pottery (Medi)	B4	Bowl; complete profile, patchy thin internal tan glaze with cu speckles, heavy external soot	m14th–16th
2104	-	8	1	52	Pottery (Medi)	B4	Bowl/jar; internal tan glaze with dark green patches and mottles	m14th–16th
2104	-	-	1	1	Pottery (Medi)	B4	Cup?; internal and external dark green glaze	16th
2104	-	8	1	53	Pottery (Medi)	B4	Jug; burnt, pock-marked exterior, tan glaze with cu mottles	m14th–16th
2104	-	8	2	9	Pottery (Medi)	B4	Jug; tan glaze, cu speckles, good condition	m14th–16th
2104	-	-	1	22	Pottery (Medi)	B4	Jug; tan glaze, cu speckles, good condition	m14th–16th
2104	-	-	1	4	Pottery (Medi)	B4	Jug; burnt, external yellowish olive glaze	m14th–16th
2104	-	8	3	0	CBM	fired clay	-	-
2104	-	-	3	5	CBM	daub	Burnt	-
2108	2	-	6	4	Copper Alloy	strip	Fragments of narrow strip of copper alloy, bronze diseased	-
2108	-	-	1	11	CBM	ridge tile	A7 fabric, pale olive glaze cu speckles	m13th–15th
2109	-	-	-	8	Industrial Waste	slag	Vitrified, vesicular	-
2109	-	-	1	7	CBM	daub	-	-
2113	-	-	2	13	Clay Pipe	bowl	Bulbous bowl, Peacey type G, wheel stamp on heel, wide bore stem	1670–1700
2113	-	-	1	596	CBM	brick	B4 fabric, hand-formed, dull purplish red, 54mm thick; quite a well sorted fabric, finely sandy, lumps of mudstone, visible and small pieces of granite, lumpy upper surface, lower surface not sandy as might be expected in 18thc and later bricks	16th+

APPENDIX 3 ENVIRONMENTAL ASSESSMENT

Introduction

Eight bulk sediment samples were extracted during an archaeological excavation and watching brief at 16–18 High Town and 12 East Street, Hereford. The samples were taken from a range of features including possible drains and pits dating from the medieval to post-medieval periods. In addition to the bulk samples, animal bone was hand collected from a further eight contexts. Three of the bulk samples were also subsampled and processed for the recovery of waterlogged remains including cess material. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains and to determine the potential of the material for indicating the character and significance of the deposit.

Method

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. A 250ml subsample of sediment was extracted from three samples: <002>, <003> and <008> and was manually processed following the procedures of Kenward et al (1980). The resulting washovers were recorded wet. 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) and Zohary et al. (2012) nomenclature for wild taxa follow Stace (1997).

Faunal remains were examined by eye or under low magnification and, as far as possible, identified to species and skeletal element, with reference to Schmid (1972), and Hillson (1992), and any marks of butchery were noted.

Results

Results of the assessment are presented in Tables A3.1 (Environmental sample results) and A3.2 (Animal remains).

Cereal grain

Cereal grain was recovered from all seven sampled features (Table A3.1) and was particularly abundant in deposits (2103) and (2104) of probable refuse pit [2111]. The grains exhibited mixed levels of preservation ranging from good to poor. Bread wheat (*Triticum aestivum*) was the dominant crop; other cereals present included hulled barley (*Hordeum vulgare*), glume wheat (*Triticum* sp.) and oats (*Avena* sp.).

Cereal chaff

Well preserved bread wheat rachis fragments were common in deposits (2103) and (2104) from probable refuse pit [2111] and were also present in cess pit [2105]. Occasional barley rachis internodes were recorded in deposit (2104) from probable refuse pit [2111].

Wild taxa

Charred 'weed seeds', (here used to include seeds, fruits, achene, caryopses etc.) were recovered from four deposits from three sampled features (Table A3.1). The charred weed assemblage comprised a small number of grass (*Poaceae*) seeds as well as individual seeds of stinking chamomile (*Anthemis cotula*) and cornflower (*Centaurea cyanus*).

The waterlogged weed assemblage from cess pit [2105] was dominated by common nettle (*Urtica dioica*) and seeds of the pea family (*Fabaceae*). Other taxa present but occurring in fewer numbers included aquatic taxon crowfoot (*Ranunculus* subg. *Batrachium*) and woodland/scrub/hedgerow taxa such as elder (*Sambucus nigra*), raspberry (*Rubus idaeus*), blackberry (*Rubus fruticosus*) and cherries (*Prunus* sp.).

Other charred plant remains

A possible lentil (*lens culinaris*) was present in deposit (2104) from probable refuse pit [2111]. Well preserved straw culm nodes were recovered from deposits (2103) and (2104) from probable refuse pit [2111].

Deposits (2103) and (2104) from probable refuse pit [2111] also contained an abundance of indeterminate vesicular matter and lumps of material that comprised cereal grains that had 'fused' together during conflagration.

Other waterlogged plant remains

Flax (*Linum usitatissimum*) seeds (< 5) were present in cess pit [2105]. A cereal bran fragment was also noted, which is a typical indicator of a cess material. The assemblage from cess pit [2105] also contained abundant fragments of monocot stems, root material and plant epidermis.

Wood charcoal

Wood charcoal was present in varying quantities in all sampled features (Table A3.1). The charcoal exhibited mixed levels of preservation and contained fragments (including roundwood) of a size potentially sufficient for AMS radiocarbon dating. Many of the samples contained large (up to 40mm) unabraded fragments of charcoal. The charcoal is predominantly oak but non-oak species are present in a small number of samples.

Molluscs

A small number of oyster shells were recovered from deposits (2071), (2072) and cess deposit (2082). A Mussel shell was also hand collected from deposit (2102).

Animal bone

Unburnt bone A small assemblage of fragmented animal bone, 90 NISP (Number of Identified Specimens), was recovered from thirteen features (Table A3.2). The Minimum Number of Individuals (MNI) determined for each group was low (Table A3.2). The bone was fragmented and demonstrated mixed levels of preservation ranging from good to poor.

Elements of all the main domesticates; cattle, pig, sheep/goat were present. Identifiable fragments included sheep/goat teeth, skull and horncores, ribs, scapula, radius, tibia, metapodials and phalanges.

Pig mandibles, teeth, vertebral fragments and a humerus were recovered. Elements of cattle included vertebrae, heavily fragmented long bones and a single astragalus. Several ribs were also present.

Bird bone, possibly of domestic fowl, was also recovered in the fill (2102) of probable refuse pit [2111].

Fish bone, including mandibles, ribs and vertebrae, was present in the assemblages of all but two ((2103) and (2104)) sampled deposits.

All other animal bone recovered from across the site was heavily fragmented and lacked diagnostic features.

Burnt bone A small assemblage of burnt bone was recovered from nine features across five groups. The bone was heavily fragmented and lacked diagnostic features required for identification.

Scientific dating potential of the remains

The dating potential of the remains will be dependent on the nature of the research questions posed. Of the environmental evidence recovered the remains that offer the best potential for AMS radiocarbon are the better-preserved cereal remains and wood charcoal.

Discussion and Recommendations

The abundant cereal remains from probable refuse pit [2111] were predominantly bread wheat grains with smaller numbers of grains of glume wheat, hulled barley and oats. The preservation of grains from this feature ranged from good to poor. The poorer grains exhibited distortion, fragmentation and missing surfaces. A number of the grains also demonstrated signs of vitrification. The assemblage also contained well preserved bread wheat chaff and straw fragments. Both of the sampled deposits from feature [2111] also contained lumps of material comprising cereal grains that had 'fused' together during conflagration. The presence of this material alongside an abundance of indeterminate vesicular matter as well as charred grains, chaff and straw raises a number of questions. Does this material represent stored material that was accidentally burnt and if so, has this material remained in situ since the incident or do these deposits represent dumps of material from when the burnt store was cleared?

The dominance of grains over the numbers of chaff and weed seeds from the assemblage from probable refuse pit [2111] suggests the storage of a clean crop. The presence of straw may indicate the storage of fodder crops (particularly hay fed to animals).

The assemblages from probable dumped deposit (2027) and cess deposit (2082) were predominantly oak charcoal and smithing slags. An abundance of possible hammerstone was recorded in probable dumped deposit (2027) and is the subject of a separate finds report.

It is difficult to determine if the charcoal relates directly to the smithing process or if the deposit contains a mix of material. Cess deposit (2082) contained a single bread wheat grain which when viewed alongside potential smithing supports the idea of a mixed dump of material, though it is important to remember that it was a single grain.

The assemblage from cess pit [2105] was predominantly nettle, and the occurrence of cereal bran within the assemblage is a common indicator of cess. The presence of flax, as well as blackberry, raspberry, elder and cherries, may indicate the collection of wild plants as part of the economy.

The assemblage from probable refuse pit [2111] warrants further investigation particularly in relation to answering questions about the economy. The material could also be used for AMS dating which could potentially offer a date for the as yet undated feature.

The animal bone assemblage provides some information on site economy. All elements of bone, including high (femur and tibia), middle (scapula, pelvis, ribs, humerus etc) and low (metatarsals, skull, mandibles etc) utility parts, were present suggesting that the animals may have been butchered on site. The presence of fish bone, oyster shell and mussel shell suggest that these were also consumed on site and that the inhabitants had a varied diet.

Due to the size and fragmented nature of the assemblage, it is unlikely that analysis would provide significant further information other than broad dietary preferences. The identifiable bones present in the assemblage represent middle and low utility bones, which carry less amounts of meat, and so are likely to represent the less desirable elements discarded during the butchery process.

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TABLE A3.1 Environmental sample results

Key: + = rare (0–5), ++ = occasional (6–15), +++ = common (15–50) and ++++ = abundant (>50)

ch = charred, w/l = waterlogged, u = uncharred

NB charcoal over 10mm is sufficient for identification and AMS dating

Context			2071	2072	2082	2081	2027	2109	2103	2104
Sample			01	02	03	04	05	06	07	08
Context type			Deposit	probable dumped deposit	Cess deposit	Feature [2080]	Deposit	Cess pit [2105]	probable refuse pit [2111]	probable refuse pit [2111]
Spot date			?	?	m13th–15th	14th–15th	14th–15th	Medi?	15th	15th
Sample Vol (l)			9	10	0.75	27	20	1	9	9
Retent Vol (l)			?	2	0.1	5	5	0.2	0.5	0.4
Flot Vol (ml)			3	6	8	6	10/12	3	60	400
Sufficient for AMS?			Y	Y	Y	Y	Y	Y	Y	Y
Plant remains										
cereals	grain	ch	++	+	+	+	+	+	++++	++++
chaff		ch	–	–	–	–	–	+	+++	+++
weed seeds		ch	–	–	+	–	–	+	+	++
weed seeds		w/l	–	–	–	+	–	++++	–	–
Other botanical remains										
bark	undifferentiated	w/l	–	–	–	–	–	–	–	–
bark	undifferentiated	ch	–	–	+	–	–	–	–	–
buds	undifferentiated	ch	–	–	–	–	–	–	–	–
mosses	undifferentiated	w/l	–	–	–	–	–	–	–	–
monocot stems	undifferentiated	w/l	–	–	–	–	–	++++	–	–
plant epidermis	undifferentiated	w/l	–	–	–	–	–	++++	–	–
rhizomes/tubers	undifferentiated	ch	–	–	–	–	–	–	–	–
root material	undifferentiated	w/l	–	–	–	–	–	++++	–	–
twigs	undifferentiated	w/l	–	–	–	–	–	–	–	–
wood fragments	undifferentiated	w/l	–	–	–	–	–	–	–	–
Charcoal										
Charcoal	Qty	ch	++	++	++++	++++	++++	++	+++	+++
	Max size (mm)	ch	15	10	10	40	15	10	20	20
	Oak	ch	++	+	–	++	+	–	–	++
	Non-oak	ch	–	+	–	++	+	+	++	++
	Roundwood	ch	–	–	–	+	–	–	–	+
Animal Remains										
Burnt bone	Mammal	Qty	+	–	–	++	+	–	++	++
Unburnt bone	Mammal	Qty	++	++	++	+++	+	++	++	+
Earthworm egg capsule		u	–	–	–	–	–	++	–	–
Fly puparia		u	–	–	–	+	–	+	–	–

16–18 HIGH TOWN AND 12 EAST STREET, HEREFORD BBHH17

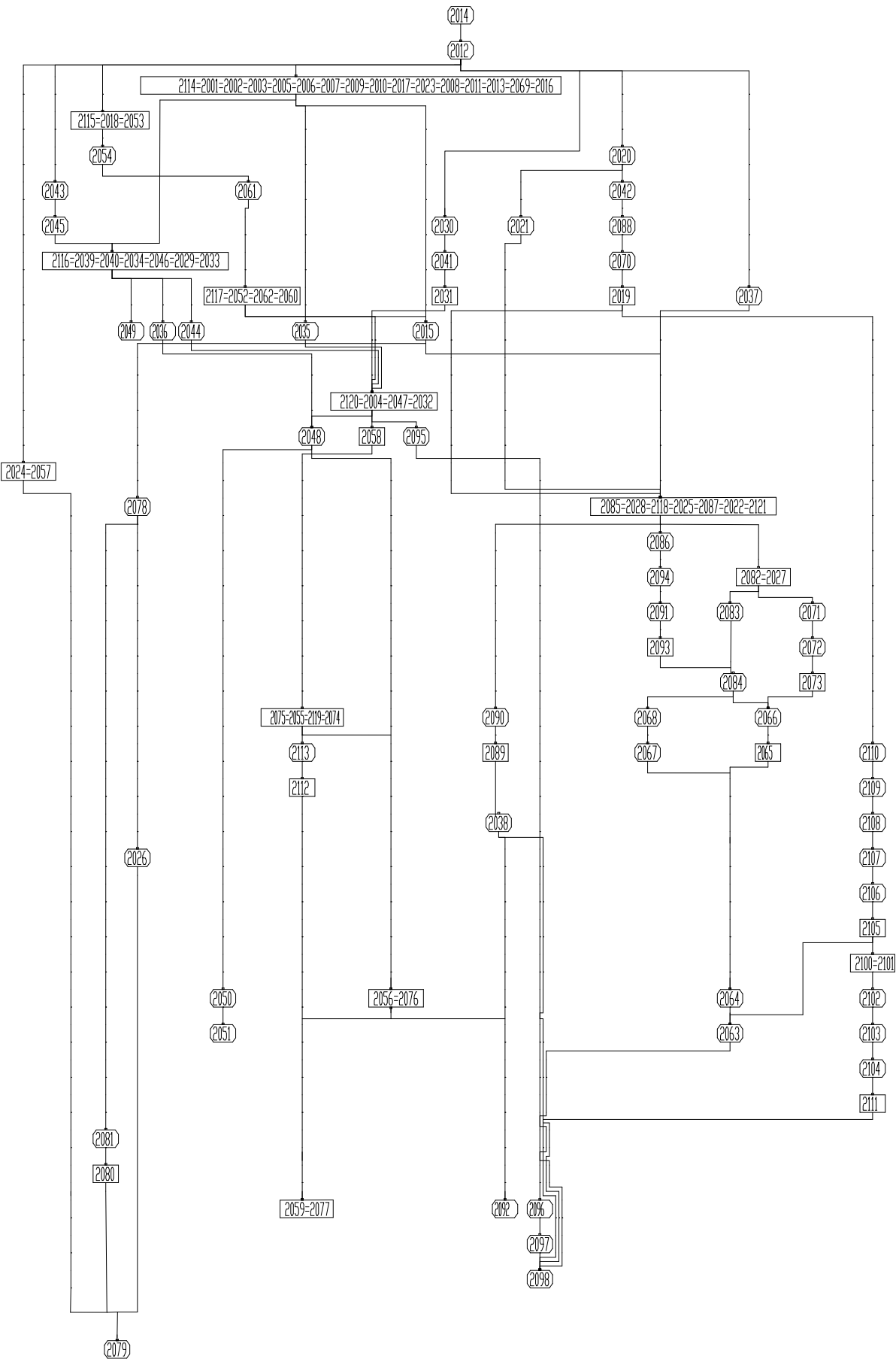
Context		2071	2072	2082	2081	2027	2109	2103	2104
insect remains	u	-	-	-	-	-	++	-	-
Shell									
Marine	u	++	++	+	-	-	-	-	-

TABLE A3.2 Animal remains

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	SPOT DATE	UNBURNT BONE								BURNT BONE					COMMENTS	
					Preservation	NISP	Minimum Number of Individuals (MINI)	Weight (g)	No. of fragments	Large Mammal (eg cow/horse)	Medium sized mammal (eg pig/sheep/goat)	Small animal (eg /dog/ cat/ rabbit)	Bird	Fish	Preservation	Minimum Number of Individuals (MINI)	Weight (g)		No. of fragments
2027	005	-	Deposit	m13th – 15th	Fair	1	1	28	1	1	-	-	-	-	-	-	-	-	Cow; Phalanx
2027	-	x	Deposit	m13th – 15th	Fair	6	5	102	6	1	5	-	-	-	-	-	-	-	Sheep/goat skull fragment, horn cores (2). Pig mandible and teeth. Rib fragment.
2057	-	x	Deposit	Medi – PM	Poor	1	1	16	-	-	1	-	-	-	-	-	-	-	Sheep/goat scapula fragment
2071	001		Drain [2073]	?	Poor	14	4	55	14	2	3	3	-	3	-	-	-	-	Medium sized mammal; vertebra fragment, carpal. Pig tooth. Large mammal ribs (2) and vertebral fragment.
2071	-	x	Drain [2073]	?	Fair	17	7	544	17	10	4	3	-	-	-	-	-	-	Pig; mandible fragments (4) and vertebral fragment. Cow; rib fragments (6), distal metacarpal, distal radius, scapula, vertebral fragment. Cat?; Fused tail bone and femur fragment.
2072	002	-	Feature [2073]	?	Poor	10	3	44	14	4	-	-	6	-	-	0.01	4	-	Sheep/goat; teeth (2). Pig; teeth (3). Indet. Heavily fragmented vertebral and longbone and scapula fragments.
2079	-	x	Deposit	12th?	Poor	2	2	15	1	1	1	-	-	-	-	-	-	-	Small mammal pelvis fragment.
2081	004	-	Feature [2081]	?		-	-	-	-	-	-	-	-	-	Poor	1	0.1	1	Indet. Bone fragment.
2081	-	x	Feature [2081]	?	Poor	1	1	1	5	-	5	-	-	-	-	-	-	-	Rib fragment
2084	003	-	Deposit	?	Poor	4	2	48	4	1	3	-	-	-	-	-	-	-	Sheep/goat; mandible fragment, tooth and distal metacarpal. Large mammal vertebra fragment.
2086	-	x	Deposit	m13th – 15th	Poor	2	2	83	4	2	-	-	-	-	-	-	-	-	Large mammal vertebra fragment. Distal radius.
2091	-	x	Posthole [2093]	?	Fair	13	2	354	13	12	1	-	-	-	-	-	-	-	Cow; vertebra fragments (2), tooth, rib, longbone fragments. Sheep/goat; distal tibia.
2098	-	x	Deposit	?	Poor			12	2	-	2	-	-	-	-	-	-	-	Indet animal bone
2101	-	x	Deposit	15– 16th	Poor			12	3	-	-	-	-	-	-	-	-	-	Indet animal bone
2102	-	x	Feature [2111]	?	Fair			385	24	13	7	-	2	-	-	-	-	-	Large mammal rib and longbone. Cow; astragalus fragments. Pig; humerus. Bird femur.
2103	007	-	Feature [2111]	?	Poor	2	2	28	6	1	1	-	-	-	Poor	1	1	1	Large mammal; rib? Fragment. Medium sized mammal; longbone fragment.

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	SPOT DATE	UNBURNT BONE								BURNT BONE				COMMENTS		
					Preservation	NISP	Minimum Number of Individuals (MNI)	Weight (g)	No. of fragments	Large Mammal (eg cow/horse)	Medium sized mammal (eg pig/sheep/goat)	Small animal (eg /dog/ cat/ rabbit)	Bird	Fish	Preservation	Minimum Number of Individuals (MNI)		Weight (g)	No. of fragments
2104	008	-	Feature [2111]	?	Poor	1	1	26	-	1	-	-	-	-	-	-	-	-	Scapula fragment
2104	-	x	Feature [2111]	?	Good			27			5	-	-	-	-	-	-	-	Phalanges (4). Vertebral fragment.
2108	-	x	Pit [2105]	?	Poor	6	2	51	-	6	1	-	-	-	-	-	-	-	Large mammal; 5 vertebra fragments, rib. Small mammal rib.
Un-stratified	-	x	?	?	Fair	10	3	69	10	2	1	-	7	-	-	-	-	-	Bird bone; metacarpal, radius. Sheep/goat proximal radius.

APPENDIX 4 STRATIGRAPHIC MATRIX





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