

Report 2392



nau archaeology

Archaeological Excavation and Watching Brief at The Bridewell Museum, Norwich

HER ENF125182



Prepared for
Norfolk Museums and Archaeology Service
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Location:	Bridewell Museum
District:	Norwich
Grid Ref.:	TG 2311 0868
HER No.:	ENF125182
Client:	Norfolk Museums and Archaeology Service
Dates of Fieldwork:	Excavation: 23 August – 2 September 2010 Watching Brief: 19 May – 13 December 2010

Summary

In August 2010 an excavation was carried out by NAU Archaeology on behalf of Lucas Hickman Smith Ltd and Norfolk Museums and Archaeology Service within the north-eastern corner of the courtyard at the Bridewell Museum in Norwich. This investigation was accompanied by a programme of archaeological monitoring, undertaken intermittently over a period of seven months concluding in the winter of 2010. The excavation revealed deposits dating back to the 11th century although heavily truncated by the construction of a 14th-century undercroft.

Additionally, a previously unknown brick arch was revealed in the western wall of the undercroft. The remainder of the renovation works had a relatively low impact upon any further archaeological deposits however a second brick arch was exposed upon the internal face of the northern ground floor wall and evidence for a previous floor encountered within the foyer area.

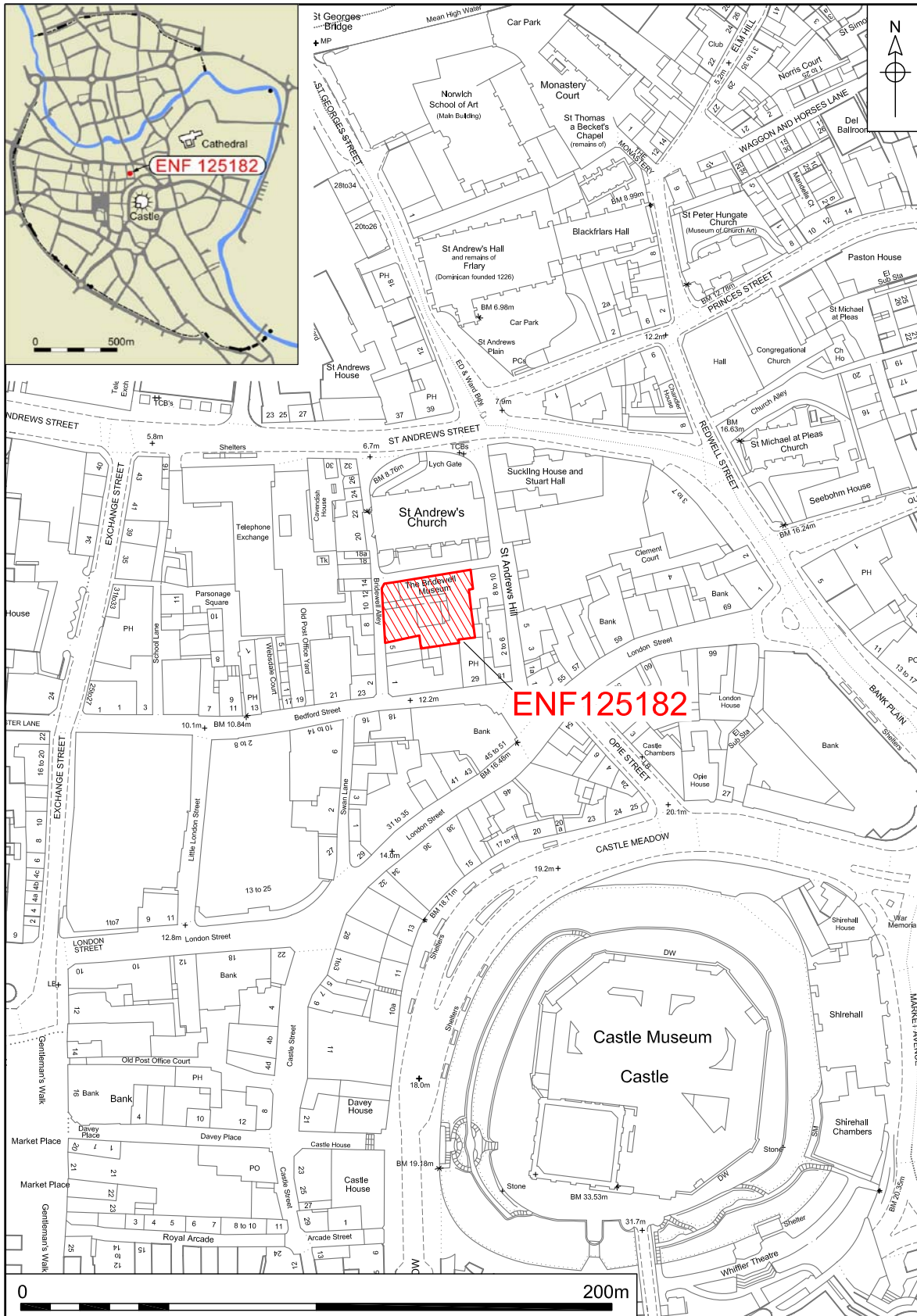
1.0 INTRODUCTION

In August 2010 NAU Archaeology undertook a small excavation measuring 3m x 2.10m within the courtyard of the Bridewell Museum in Norwich prior to the construction of a stairwell leading down to the 14th-century undercroft (Fig 1). The addition of the stairwell was part of a broader scheme of works to refurbish this important Grade I Listed Building in the heart of the historic city. The brief also required a programme of archaeological monitoring on all below-ground works.

This work was undertaken to fulfil a planning condition set by Norwich County Council (Ref. 09/01154/F) and a Brief issued by Norfolk Landscape Archaeology (Ref. CNF42731). The work was conducted in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref. NAU/BAU2392/DW). This work was commissioned by Norfolk Museums and Archaeology Service through Lucas Hickman Smith Limited.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance Note 16: Archaeology and Planning* (Department of the Environment 1990).

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Norfolk Museums and Archaeology Service (NMAS) following the relevant policies on archiving standards.



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Figure 1. Site location. Scale 1:2000

2.0 GEOLOGY AND TOPOGRAPHY

The site lies to the north of Bedford Street in the centre of Norwich between Bridewell Alley and St Andrews Hill, just to the south of St Andrews Church. It is located some 200m from the River Wensum on its steeply sloping southern bank at a height of approximately 13m OD. The Great Cockey, a tributary of the Wensum runs to the west, although it has been culverted and is not visible above ground.

The geology is of upper chalk overlain by sands and gravels.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

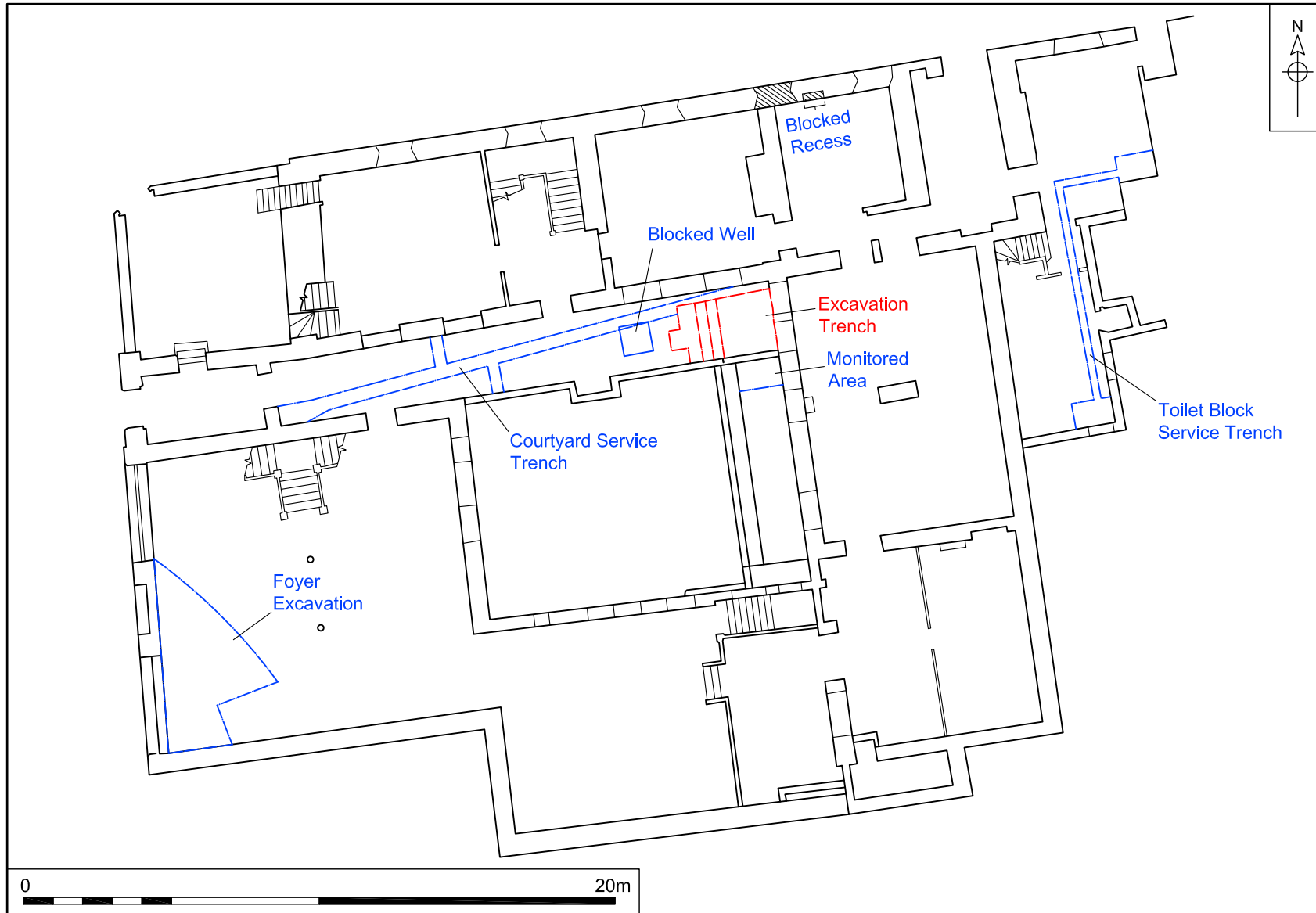
The following summary has been compiled with reference to the Norfolk Historic Environment Record.

Present research suggests Norwich may have emerged as a ribbon development along the banks of the River Wensum from perhaps the 8th century (Ayers 1994) however by the 10th century sufficient nucleation appears to have taken place to allow a defensive circuit to be constructed and a mint to be established in the town. The line of this defensive ditch has been well established to the north of the river by several excavations however its location to the south in contrast is poorly understood. Excavations in 2004 at Cinema City directly opposite the Bridewell Museum may have identified this southern ditch however running north to south parallel to St Andrews Hill which would place the present archaeological works just outside of the defended area in the Late Saxon period (Wallis 2009).

Despite the lack of evidence for the defences, finds of Late Saxon date are numerous from this area and include several pottery kiln sites identified on Pottergate, Lobster Lane, St Andrews Street and Bedford Street (NHERs 118, 163, 424) the latter of which was at 25 Bedford Street no more than 20m from the site of the present archaeological works.

St Andrews Church (NHER 591) immediately to the north may have had earlier origins but the present building dates to the second half of the 15th century. Although no longer in use, the remnants of an enclosed graveyard survive to the north and south where it lies adjacent to the Bridewell Museum's northern limits.

Portions of the Bridewell Museum, including the eastern range of the brick undercroft, date to the first half of the 14th century, however much rebuilding occurred in the early 15th century when the building was occupied by William Appleyard, the first Mayor of Norwich (NHER 607). The town house was purchased by the city in 1583 and used as a correctional facility from whence it takes its present name. A fire in 1751 badly damaged the building and extensive repairs were required leaving little of the original above-ground structure in place. In 1828 the prison was relocated and the building converted for use as a factory which over the next hundred years saw service as a tobacco factory, leather warehouse and finally as Bowhills boot and shoe factory. In 1923 Bowhills relocated and in 1925 after extensive renovations the building once again had a change of use when it was presented to the city becoming the Bridewell Museum, for local crafts and industry.



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Figure 2. Location of Excavation (red) and Watching Brief areas (blue). Scale 1:200

4.0 METHODOLOGY

The objective of this excavation was to record and interpret as far as reasonably possible the location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that a trench with an area of 6.3 m be excavated in the north-eastern corner of the Bridewell Museum's central courtyard ahead of the construction of a stairwell leading down to the building's undercrofts (Fig. 2).

Excavation of all deposits was carried out by hand until formation levels, as predetermined on site by the main contractor, were reached.

Spoil, exposed surfaces and features were scanned with a metal-detector where appropriate. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

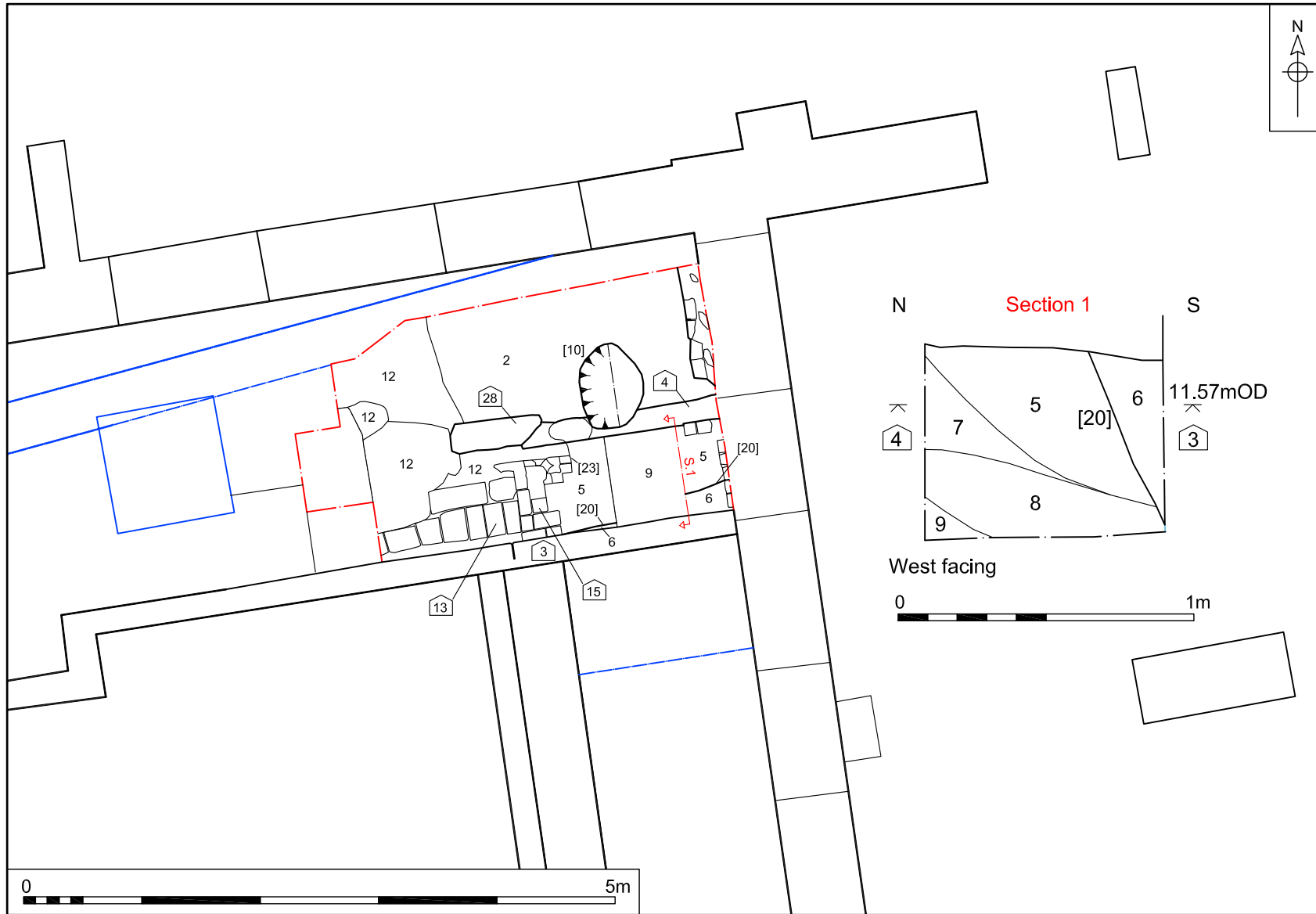
All archaeological features and deposits were recorded using NAU Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

The temporary benchmark used during the course of this work was transferred from an Ordnance Survey benchmark with a value of 6.98m OD located on the southern porch of St Andrews Hall.

Site conditions were good although the logistics of removing soil from the site slowed progress somewhat. The weather varied between bright sunshine and heavy rain.

The site was initially excavated stratigraphically removing deposits in sequence, however with the discovery of a central wall two sondages were excavated through the deposits to the north and south of it and their sections recorded. Using the sections as a guide these sondages were then expanded across the full width of the trench, reducing the levels either side of the two central walls until the limit of excavation was attained. The western edge of the trench needed to be stepped to facilitate removal of the spoil and also to match the agreed excavation depths as defined by the main contractor.

The watching brief took place intermittently between 19th May and 13th December 2010 with visitations carried out in liaison with the site foreman when below ground works were to be carried out.



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Figure 3. Trench plan 1 and section 1. Scale 1:50 and 1:20

5.0 RESULTS

5.1 Excavation

The excavated area was bounded to the north and east by the walls of the museums under-croft and to the south by a retaining wall separating the upper courtyard from the lower and the entrance to the undercroft on the floor below (Fig. 3).

On removal of the paving slabs that covered the surface of the modern courtyard a layer of mid grey brown silt (1) 0.2m thick covered the trench sealing all archaeological deposits below. Its removal revealed the top of an east-west aligned wall running across the trench just to the south of centre with a layer of crushed white mortar (2) confined to the north of this wall and a deposit of crushed chalk (12) to the west partially overlying both the wall and deposit (2). A small oval pit [10] with a rounded base had been cut into the centre of layer (2) to a depth of 0.35m and filled with a loose mid brown silty sand (11) containing fragments of 18th- to 19th-century ceramic building material (Plate 1).



Plate 1. Oval pit [10], west facing section, 0.5m scale

Deposit (12) continued south extending 1.6m from the northern limits of excavation where it partially covered a red brick manhole surround (15) capped with red roofing tiles (13) which had been inserted into the south-west corner of the trench. To the east of the manhole (15) a dark brown organic silt material (5) continued up to the eastern wall of the under-croft and bounded to the north by the east-west wall (Fig 3). A sondage placed across this darker material revealed the southern face of this wall to be rendered with a lime mortar to a depth of 0.74m with a series of dumped layers (7), (8) and (9) lying in sequence up against it beneath deposit (5) (Fig. 3, Sec 1). At their southern edge these deposits had been truncated by the insertion of the modern retaining wall [3] and its construction cut [20] was filled



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Figure 4. Trench plan 2. Scale 1:50

with a very loose dark grey brown sandy silt backfill (6). To the west deposits (7), (8) and (9) ended with the insertion of the modern drain (15) and its cut [23]. The extension of this sondage to the north of the dividing wall exposed cut [19] which further excavations revealed to be a large pit containing deposits (16) a mid brownish yellow mortar rubble with (17) a yellow brown fine silt beneath (Figs 4 and 5, Section 3). Both deposits contained post-medieval brick and tile throughout as well as re-deposited pottery of medieval date. A second sondage across the width of the western half of the trench revealed that this pit continued to the west for a further 2m and beyond the limits of excavation. Although the base was not reached it had a depth greater than 1m and steeply cut sides. At the northern limit of the trench pit [26] had been cut into the top of deposit (16) in order to house a modern brick drainage surround (43) and its base (25) (Fig. 7 Section 7). To the south this second sondage removed deposit (12) exposing more of the 19th-century drainage system and revealed the east-west wall to be slightly wider and without any render at this point (Plate 2).



Plate 2. Wall [28] with 19th-century drain capping, 0.5m scale

The subsequent removal of the deposits remaining between the two sondages explained these variations when it became clear that there were in fact two separate walls on slightly different alignments. The eastern wall [4] had a width of 0.27m and a length of 1m extending westwards from the eastern wall of the Bridewell Museum while the western wall [28] had a length of 1.4m and width of up to 0.33m. Both walls were constructed of irregular hand made medieval brick fragments and flint in a generous lime mortar (Plate 3).

The two walls were divided at approximately the centre of the trench by a narrow slot [33] cutting into layer (18) below it and backfilled with a loose orange sand (41) (Fig. 5 Section 8). This slightly odd feature did not extend beyond the width of either wall but had a depth of 0.42m and was topped with a handmade brick.

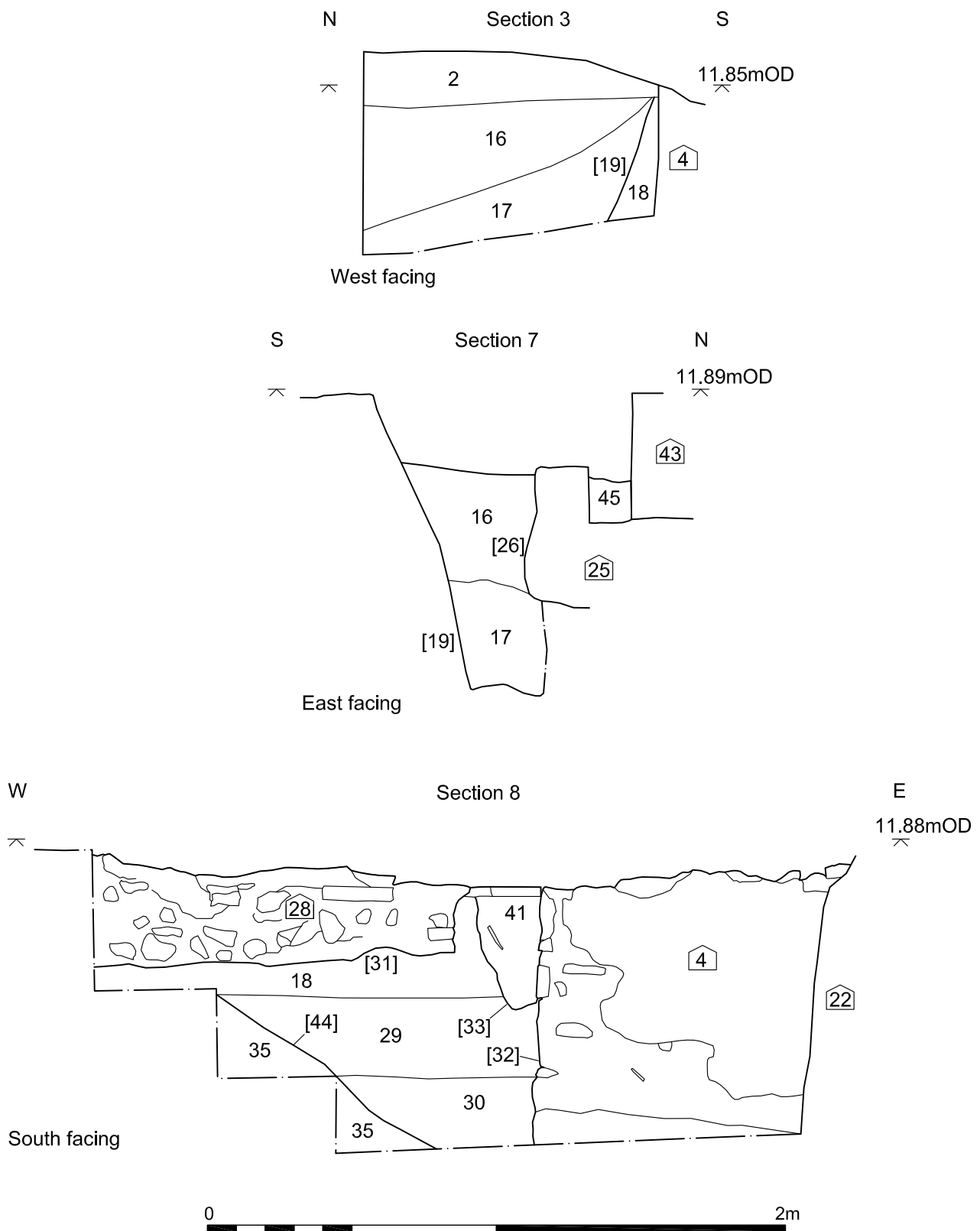


Figure 5. Trench sections 3, 7 and 8. Scale 1:20



Plate 3. Walls [28] and [4], north elevation facing south-east, 1m scale

The excavation of the remaining deposits to the south of the wall revealed a series of layers (18), (29) and (30) sloping from west to east (Fig. 5 Section 8). The uppermost of these was a mid grey brown clay silt (18) 0.35m thick lying beneath wall [28] and extending the full width of the trench although it had been heavily truncated by the insertion of walls [4] and [28] as well as by pit [19] to the north and the brick manhole surround (15) in the south-west corner of the trench. Beneath (18) a mid red brown silt layer (29) had been similarly truncated as had deposit (30) a dark grey brown clay silt below (29). Reduction of the levels to the north of the cross walls revealed the same sequence where they were not disturbed by pit [19]. Below layer (30) a pale yellow brown mortar crush (34) was exposed covering much of the base of the trench however at the western end of the excavation a dark brown silt (35) had been cut by what appeared to be two pits (Fig. 6).

The first of these pits [38] cut deposit (35) in the south-western corner of the trench and was filled with a mid brown silty clay (37). It appeared to have fairly steep sides and a depth greater than 0.54m. Its western limit was not observed being beyond the trench limits but it exceeded 0.90m. Pit [38] was cut to the north by the second pit [39] which extended northwards with an irregular plan for a distance of almost 1.5m before being truncated by pit [19]. It too had steep sides and a depth of over 0.64m being filled with a light brown silt (36) but as with pit [38] the base of this pit was not reached (Plate 4). After examination of the remaining section it was concluded that both these pits and deposit (35) had been truncated by feature [44] a cut sloping at 45 degrees from west to east and largely removed by later activities (Fig. 5 Section 8). It nevertheless remained in plan (Figs 6 and 7) and it was within this cut that deposit (34) lay along with the subsequent layers (30), (29) and (18). The final depth or nature of feature [44] could not be determined as investigations were beyond the limits of excavation however the exposure of the eastern under-croft wall [22] during the work revealed the top of a blocked brick arch measuring roughly one metre from jamb to jamb

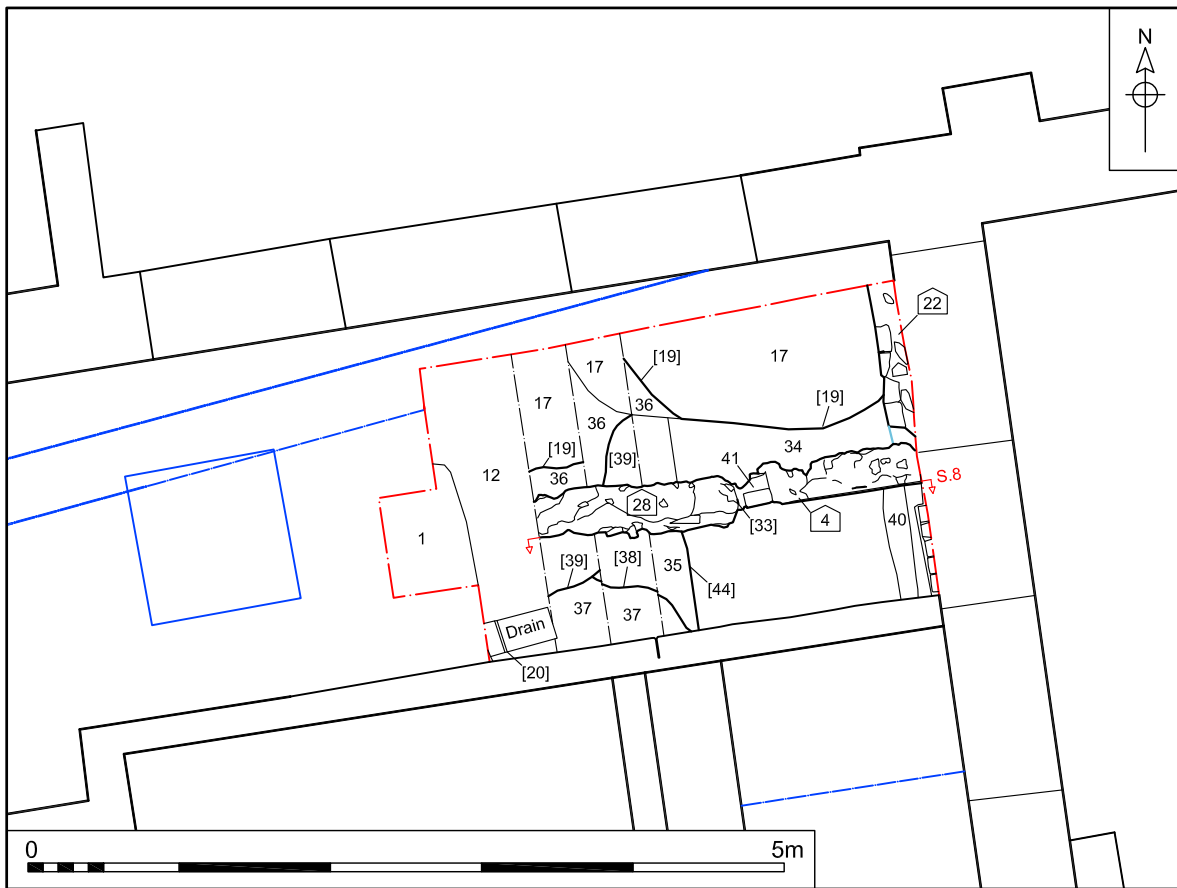
that suggests this cut must have continued for some depth in order to make this arch functional (Plate 5).



Plate 4. East facing section showing pits [38], [39] and [19] in stepped section, 1m scale

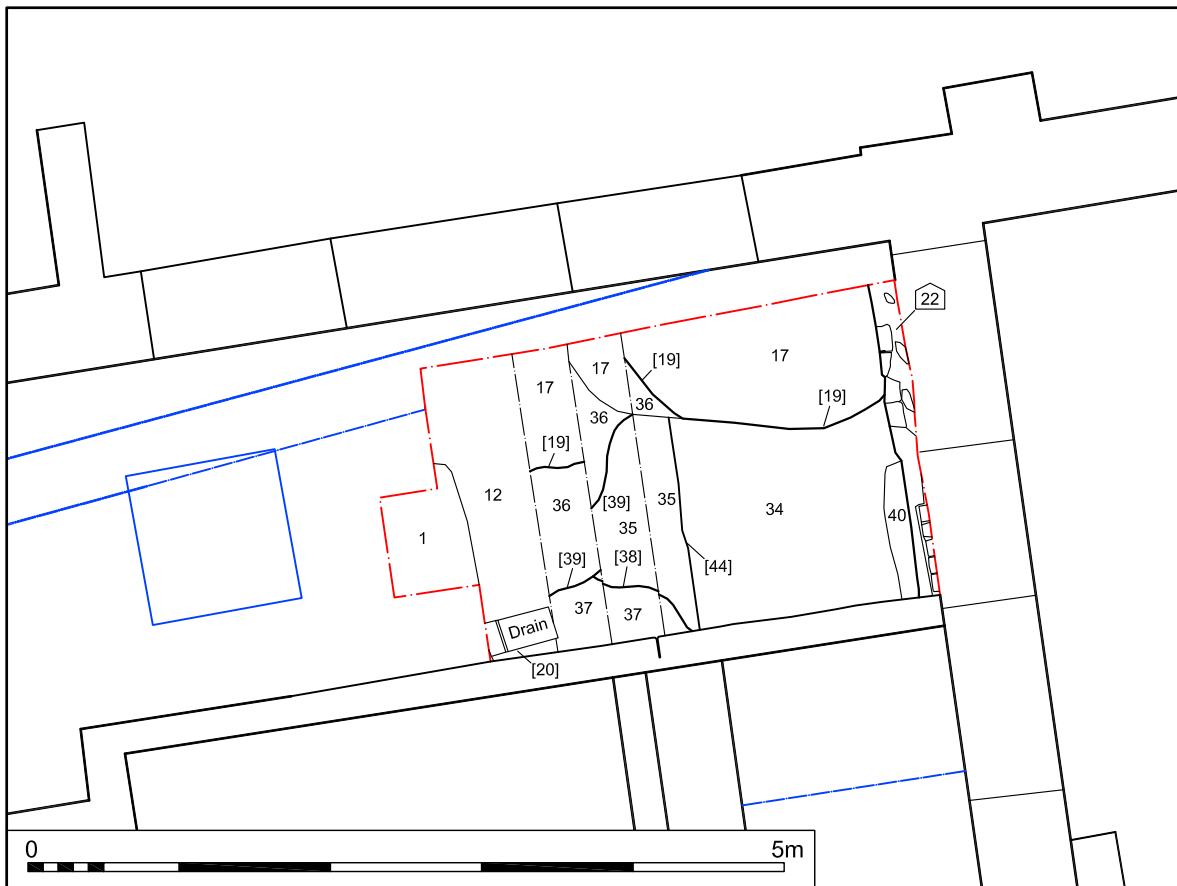


Plate 5. Pointed arch revealed in wall of undercroft, 0.5m scale



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Figure 6. Trench plan 3, showing walls [28] and [4]. Scale 1:50



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Figure 7. Trench plan 4. Scale 1:50

5.2 Watching Brief

In addition to the excavation itself, several areas of below-ground disturbance occurred during renovation works to the building. The results of the monitoring of the groundworks are discussed below by area.

5.2.1 Entrance Foyer

Alterations were made in the area of the entrance foyer in the south-west corner of the building where it opens out onto Bridewell Alley. This involved the reduction in the floor levels to a depth of 1.4m below the previous floor in an area approximately 13m² in an arc starting from the west wall north of the doorway towards mid way across the south wall (Fig 2, Plate 6).



Plate 6. Foyer excavations facing south-west

The excavations were carried out by hand and the work was regularly monitored over a period of two weeks. Beneath the present concrete floor a layer of crushed brick set within a firm lime mortar between 140mm and 200mm in depth had been laid as hardcore bedding for the surface above. Below this hardcore a deposit of mid grey brown loose silty sand containing large amounts of modern brick fragments was encountered, extending a further 0.4m in depth (Plate 7). Its removal exposed four red brick dwarf walls of probable 19th- to 20th-century date running east to west across the excavated area at intervals of approximately 1.3m. They undoubtedly served as joists for an earlier floor but were of no great archaeological interest. At this same level however, and perhaps rising to this floor, a set of stone steps was exposed leading down towards a lower and earlier threshold for the present doorway (which had been bricked up) (Plate 8).



Plate 7. Foyer excavations west-facing section, facing south-east



Plate 8. Stone steps in foyer, facing south 0.5m scale

The bricking up of the lower portions of this opening had the effect of reducing the overall height of the doorway as well as increasing the height of the threshold above ground level. Beneath the steps and dwarf walls a dark grey brown silty sand was exposed which extended across the remainder of the excavation and continued to a depth of 0.8m where excavations ceased.

5.2.2 Courtyard Service Trench

Adaptations to drainage runs within the courtyard required the excavation of a trench approximately 0.4m wide and 0.25m deep, extending from the north-east corner of the courtyard westwards for a distance of 17m along the buildings central passage with a short spur to the north and again to the south approximately half way along the run (Fig. 2). In order to excavate these trenches it was necessary to lift all of the floor slabs within the courtyard passage and this led to the exposure of a square red brick feature, with what appeared to be clasped corners (Plate 9).



Plate 9. Brick well revealed in courtyard, facing east, 0.5m scale

It had the appearance of a capped well however attempts to break through the capping and establish this beyond doubt failed and it was left *in situ*. The soils surrounding this brick feature and underlying the remainder of the slabs were of a mixed loose mid grey brown silt which extended west along the whole passage and to the full depth of excavation (Plate 10). This material was clearly of 19th-century or later date, judging by the brick fragments distributed throughout and it

was heavily disturbed by subsequent drain runs. Nothing further of archaeological interest was noted in this area.

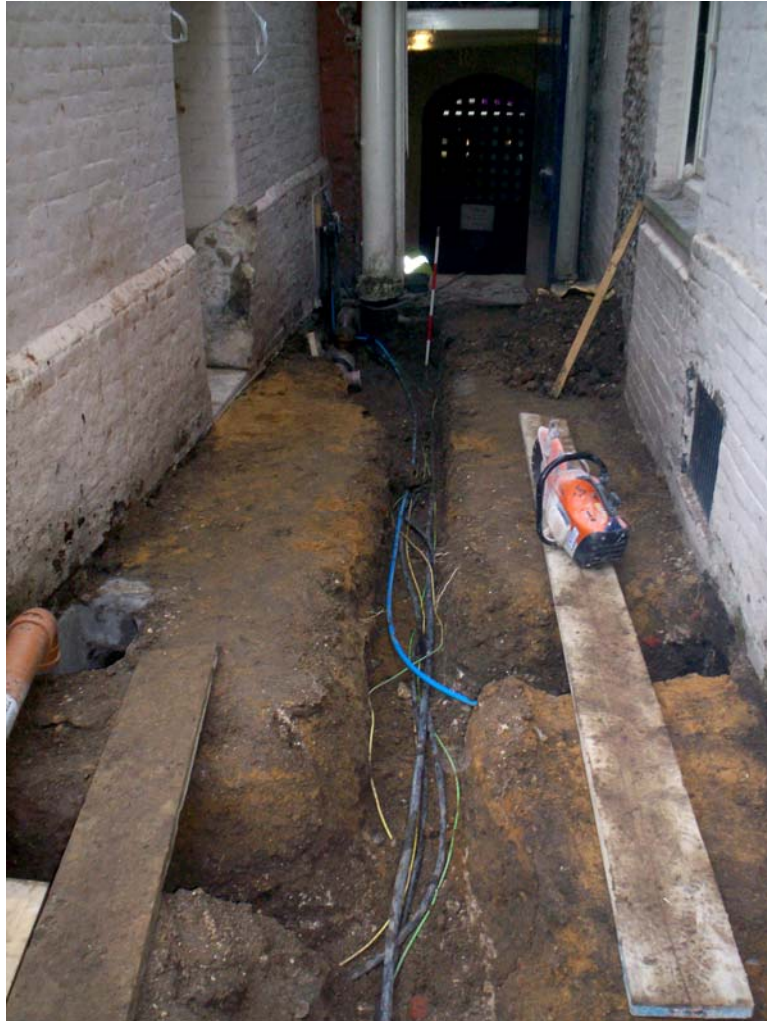


Plate 10. Courtyard passage service trench, facing west

5.2.3 Toilet Block Service Trench

At the eastern end of the building a service trench measuring 9.6m long and 0.25m wide was excavated from the toilet block northwards into the adjacent room at the north-east corner of the Bridewell Museum (Fig. 2).

On entering this room the trench turned 90° eastwards terminating at the far wall. Further excavations were undertaken at either end of the trench in preparation for the installation of access hatches. The one to the north measured 1.4m by 0.88m and extended to a depth of 0.73m. Examination of the exposed section revealed a concrete base 0.12m thick below the existing floor boards with a brick rubble hard core base 0.1m thick below. Beneath this a mixed mid yellow brown sandy silt layer continued to the base of the trench with a salt glazed drain run cutting through its upper portions (Plate 11). The deposit was wholly of make up material and undoubtedly of a 19th- or 20th-century date.

The second access pit at the southern end of the service trench was 0.87m wide and 1.35m long. Its profile was very similar to the previous example apart from its depth which only reached a 0.38m (Plate 12).



Plate 11. East-facing section of drainage junction, 0.5m scale

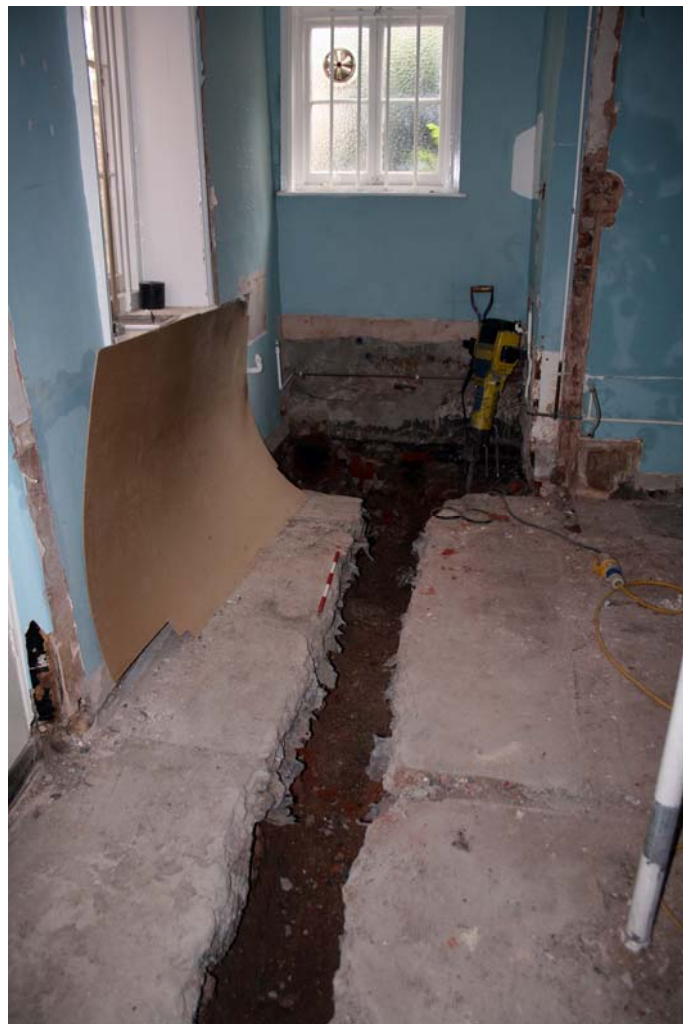


Plate 12. Toilet block service trench, 0.5m scale facing south

5.2.4 Arch Recess

During renovation of the building an area of failing plaster was removed from the internal surface of the northern wall towards the eastern end of the museum. This room had previously been used to display a forge and it was behind this forge that the removed plaster revealed a four centred brick arch above a blocked opening (Fig. 2, Plate 13).

Although much obscured by render, the opening measured approximately 0.7m across from jamb to jamb and perhaps 0.9m from sill to soffit. It stood 0.7m above the present floor surface making it significantly lower than the existing windows. It had been roughly in-filled with brick and lime mortar probably in the 18th- or 19th-century judging by the bricks used but towards the apex of the arch the infill had come away and a plastered rear surface could just be seen at a depth of 0.25m into the wall face. The arch above was well formed in brick with a chamfered leading edge.



Plate 13. Four-centred arch revealed behind plaster on northern wall, 0.5m scale

5.2.5 Courtyard Stairwell

A small block of soil a little less than a metre in length and immediately to the south of the excavated area and within the stairwell was originally to be included with the main excavation area however after consultation with the architects and in

agreement with Norfolk Historic Environment Service it was felt that the removal of this block of soil and its brick-retaining wall could potentially compromise the stability of the east wall of the under-croft. This work was therefore deferred to the watching brief stage when appropriate shoring could be erected.

After the removal of the 19th-century red brick retaining wall to the south the remaining soils were removed to the base of the stairwell revealing a mixture of brick rubble and re-deposited mid grey brown soils of wholly modern date and any earlier materials had been previously removed.

6.0 THE FINDS

6.1 Pottery

by Sue Anderson

6.1.1 Introduction

Sixty-one sherds of pottery weighing 775g were collected from nine contexts. Table 1 shows the quantification by fabric and a summary catalogue by context is included as Appendix 3.

Description	Fabric	Code	No	Wt (g)	eve	MNV
Thetford-type ware	THET	2.50	39	364	0.44	39
Early medieval ware	EMW	3.10	3	13	0.05	3
Early medieval sparse shelly ware	EMWS S	3.19	4	11		4
Stamford Ware Fabric B	STAM B	3.71	1	74		1
Grimston-type ware	GRIM	4.10	4	76		3
Glazed red earthenware	GRE	6.12	1	8		1
Refined white earthenwares	REFW	8.03	6	187	0.27	3
English Stoneware	ESW	8.20	1	31	0.48	1
Unidentified	UNID	0.001	2	11		2
Totals			61	775	1.24	57

Table 1. Pottery quantification by fabric

6.1.2 Methodology

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. A full quantification by fabric, context and feature is available in the archive. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares. Thetford-type ware fabrics are based on Dallas (1984), and forms on Anderson (2004). Form terminology for medieval pottery is based on MPRG (1998). Recording uses a system of letters for fabric codes

together with number codes for ease of sorting in database format. The results were input directly onto an Access database.

6.1.3 Pottery by period

6.1.3.1 Late Saxon

Thirty-nine sherds of Thetford-type ware were recovered. The majority were small body sherds, particularly those from layer [35]. Five rims were present, four from medium or large (AB/AC) jars with rim types belonging to the second half of the production period (types 4 and 6), and there was one bowl (type BB3) with an inturned rim. One large storage vessel was represented by a body sherd with strap decoration and combing running alongside the applied thumbed strip. One body sherd was decorated with rectangular rouletting.

A rim sherd from rubble [16] was twisted and overfired with no signs of use, indicating that it was a kiln waster.

6.1.3.2 Early medieval

With the exception of a small fragment of everted rim from a jar, and a small piece of base, all early medieval ware sherds were body fragments. Most were in sparse shelly fabrics with very fine calcareous inclusions in a fine sandy matrix.

Also of this period was a wide strap handle in Stamford Ware, probably from a spouted pitcher. It was glazed with a pale green glaze, but only spots of this were present on the handle.

6.1.3.3 Medieval

Four sherds of Grimston-type ware were recovered. Two were from the same vessel and were part of a jug body with the scar from the (lost) handle. One large sherd had bands of combed horizontal line decoration under green glaze and was probably from a globular jug. There was also one flat base sherd with sooting externally and thick limescale internally, indicating that it had been used to heat water.

6.1.3.4 Post-medieval and modern

One abraded sherd of GRE with internal orange glaze and external sooting was probably part of a skillet or pipkin.

There were six sherds of three plates or dishes in refined white earthenware, all decorated with blue transfer-printed designs which included willow pattern, a foliate border, and a rural scene. One rim sherd from a brown stoneware blacking bottle was also recovered.

6.1.3.5 Unidentified

Two sherds in layer [35] were unidentified. One was a small medium sandy oxidised sherd, possibly with an incised line in the external surface, but was covered in lime. The other was a fine oxidised ware with a few spots of 'glaze', one of which continued onto a broken edge. Given the abundance of Thetford-type ware in this context, it is possible that both these sherds are burnt Thetford wares, one of which has been covered in drips of glass.

6.1.4 Pottery by context

A summary of the pottery by context is provided in Table 2 below

Context	Description	Fabric	Spot date
5	Silt layer	GRE, REFW	L.18th-20th c.
11	Fill of pit [10]	ESW, REFW	19th c.
16	Rubble	THET	11th c.
17	Silt layer	THET, GRIM	L.12th-14th c.
18	Silt layer	THET, GRIM	L.12th-14th c.
42	Silt layer	THET, EMWSS	11th(-12th) c.
30	Clay/silt layer	THET, EMW	11th c.
34	Mortar layer at base	STAMB	M.11th-M.13th c.
35	Clay/silt layer	THET, EMW, EMWSS, UNID	11th(-12th) c.?

Table 2. Pottery types present by context.

The distribution of early pottery through all these layers suggests that there has been significant intercutting and mixing of the stratigraphy in the medieval period.

6.1.5 Discussion

The assemblage was dominated by Thetford-type wares, most of which appeared to be residual in the contexts from which they were recovered. Those found with early medieval wares may be contemporary, however, and belong to the 11th century. The most interesting feature of this assemblage was the presence of a kiln waster. However, given the site's proximity to known kilns at Pottergate and Bedford Street, together with finds of wasters at Cinema City, it is perhaps unsurprising to find a waster in this part of the city.

Unusually, although Grimston-type ware was present and there was also a sherd of medieval Stamford Ware, no LMU was recovered from the site. No late medieval pottery was present and there was only one sherd of post-medieval date, with later material all belonging to the 19th century.

6.2 Ceramic Building Material

by Sue Anderson

Three fragments (44g) of CBM, all roof tile, were recovered from two contexts (Appendix 4). Two fragments in estuarine fabrics, both flakes, were found in layers [17] and [34], the latter with green glaze on the surface. A thick corner fragment in a fine sandy red-firing fabric with orange-brown glaze also came from [17]. The thickness of the latter may indicate that it was a piece of roof tile rather than plain tile. All pieces were medieval (13th to 15th century).

6.3 Human bone

by Sue Anderson

Two fragments of an adult human left radius were found in layer [5]. The pieces do not join, but it is likely that they come from a single individual.

6.4 Animal Bone

by Julie Curl

6.4.1 Methodology

The assessment was carried out following a modified version of guidelines by English Heritage (Davis, 1992). All of the bone was examined to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible a record was made of ages and any other relevant information, such as pathologies. Counts and weights were noted for each context with additional counts for each species identified, counts were also taken of bone classed as 'countable' (Davis, 1992) and measureable bone. All information was recorded directly into Excel for quantification and assessment. A basic catalogue is included in the written report and the full assessment database is available in the digital archive.

6.4.2 The assemblage – provenance and preservation

A total of 0.073kg of faunal remains, consisting of twelve pieces, was recovered from excavations at the Bridewell Museum (Appendix 5). Remains were produced from four deposits and were found in association with ceramics of a Late Saxon and medieval date range.

The remains are in good condition, although highly fragmented from butchering and wear.

6.4.3 Species range and modifications and other observations

Two species were identified, with the remains in this assemblage all appearing to be of domestic origin.

Sheep/goat bones were produced from two deposits, (16) and (30), and were associated with ceramics of Late Saxon origin. Context (16) yielded a proximal end of a sheep/goat metacarpal, which had been cut close to the proximal end, attesting to the skinning of this animal; a distal metatarsal was also recovered from the same fill and may also be skinning waste. A butchered sheep/goat humerus was seen from deposit (30).

Cattle remains were seen in two fills; a juvenile cattle phalange was recorded from deposit (30) and a fourth pre-molar was seen from deposit (35).

Other bone consisted of fragments of mammal bone that could not be securely identified to species, some of which had been butchered.

6.4.4 Conclusions and recommendations for further work

This is a very small assemblage that has produced material that is possibly not in its original place of disposal and therefore difficult to accurately interpret.

The bone assemblage consists of butchering and processing waste from two of the main domestic mammals commonly kept, with some clear evidence of skinning of the sheep/goat.

7.0 CONCLUSIONS

7.1 Excavation

Previous excavations in the area surrounding the Bridewell Museum suggest that by the 11th or 12th centuries this area of Norwich had probably been occupied for some time, perhaps as a semi industrial zone. It is from this date that the earliest deposits encountered during the present excavations may date with a series of what appear to be intercutting pits consistent with domestic occupation. No evidence of structural remains were encountered but it is likely that evidence of activity, and perhaps buildings, would have been very close by given the proximity of previously-identified pottery kilns. The construction of undercrofts to the north and east of the Bridewell evidently had a substantial impact upon the early medieval deposits and led to the removal of any material that might have accumulated in the two centuries prior to their creation. The method of construction for the eastern undercroft range (which dates perhaps to the early 14th century) seems to have involved cutting a deep hollow into the ground to a depth of at least 0.6m - and probably more - with a 45° batter to the west. The undercroft was then built up from the base of this hollow, presumably hard against the eastern slope while to the west the batter was maintained perhaps to allow direct external access from the courtyard or to admit light through windows set into the western wall. The construction methods used for the northern range were not clear; this evidence may have been destroyed by pit [19].

Although access to the south of the excavated area may have been maintained the area at the north-eastern corner of the courtyard was in-filled probably by the end of the 15th century by a series of dumped deposits. Clearly the blocking of the northernmost opening must have occurred prior to this event giving it a relatively short period of use. It was into these dumped deposits that the two smaller east-west walls were cut, largely removing deposits to the south. The plastered southern face of the more easterly of these walls indicates it must have been above ground at some point and presumably served as a retaining wall against the soil to the north. It may even have formed the northern limits of a previous stairwell visible on a plan of the Bridewell dating to the first quarter of the 20th century (NHER 607). The purpose of the large pit to the north of this wall is not clear if indeed it postdates the construction of the northern range as the dating material suggests it does. The pit fills attest to a period of demolition clearance and the residual pottery fragments recovered indicate disturbance of the earlier deposits at this time. Another opening in the eastern wall just to the south of the pointed brick arch may date to this period perhaps being used as a coal chute or for another similar function (Plate 14). This too fell out of use and was bricked up probably in the 19th century before a series of dumped waste deposits built up to the south of the rendered retaining wall.



Plate 14. Blocked coal chute south of pointed arch facing south-west, 0.5m scale

The construction in the 20th century of a second retaining wall three quarters of a metre to the south of the previous one truncated these waste deposits to the south while a 19th century drainage system did the same to the west. The small oval pit cutting the upper fill of the larger pit to the north was of 19th century or later date but must have predated the laying of the present yard slabs and various drainage interventions.

7.2 Watching Brief

In the majority of cases the impact of the rest of the groundworks on the archaeological deposits was minimal. Neither the courtyard service trench nor the toilet block service trench reached below modern re-deposited soils, although the former exposed a possible late post-medieval well.

The excavations in the foyer area exposed evidence for a lower floor level of probable late post-medieval date with brick dwarf walls and the remnants of entry steps leading up from the (external) Bridewell Alley. Here again the limitations imposed by the formation level prevented the disturbance of materials below what could be described as modern make-up deposits.

The discovery of the arch on the interior of the northern wall is of some interest as it appears to be previously unrecorded and may have been constructed as early as the 15th century. It probably functioned as a niche, perhaps for holding candles.

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Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Period
1	Deposit			Mid Grey Brown Silt	Modern
2	Deposit			Mortar Spread	Medieval
3	Masonry			Brick Retaining Wall	Modern
4	Masonry			Wall	Post-medieval
5	Deposit			Dark Black Brown Silt	Modern
6	Deposit			Dark Grey Brown Sandy Silt	Modern
7	Deposit			Mid Grey Brown Gritty Silt	Modern
8	Deposit			Browny Orange Silty Sand	Modern
9	Deposit			Loose Yellow Grey Gritty Silt	Modern
10	Cut	Pit		Small Pit	Post-medieval
11	Deposit		10	Mid Brown Silty Sand	Post-medieval
12	Deposit			Compacted Chalk	Modern
13	Masonry			Brick and Tile Structure	Modern
14	Masonry			Concrete	Modern
15	Masonry			Drain	Modern
16	Deposit		19	Loose Mortar Rubble	Post-medieval
17	Deposit		19	Yellow Brown Fine Silt	Post-medieval
18	Deposit			Dark-Mid Yellow Brown Silt	Medieval
19	Cut	Pit		Pit	Post-medieval
20	Cut	Construction cut		Construction Cut For Wall 3	Modern
21	Masonry			Small Lime Mortar Wall	Modern
22	Masonry			East Wall of Bridewell Museum	Medieval
23	Cut	Construction cut		19th-century Drainage System	Modern
24	Masonry			Floor Tiles Below Drain	Modern
25	Masonry			Rough Lump of Masonry	Modern
26	Cut	Construction cut		Construction Cut For Wall 21	Modern
27	Deposit			Overlying deposit ²¹	Modern
28	Masonry			E-W Aligned Lime Mortar Wall	Post-medieval
29	Deposit		44	Mid Red Brown Silt	Medieval
30	Deposit		44	Dark Grey Brown Clay Silt	Medieval
31	Cut	Construction cut		Construction Cut of Wall 28	Post-medieval
32	Cut	Construction cut		Construction Cut of Wall 4	Post-medieval
33	Cut			Cut of Void	Post-medieval
34	Deposit			Mortar Layer at Base	Medieval
35	Deposit			Dark Grey Brown Clay Silt	Medieval
36	Deposit		39	Fill of pit [39]. Light brown silt with abundant chalk	Medieval
37	Deposit		38	Fill of possible pit [38]. Mixed Mid Brown Silty Clay	Medieval
38	Cut	Pit		Pit	Medieval

Context	Category	Cut Type	Fill Of	Description	Period
39	Cut	Pit		Pit	Medieval
40	Deposit			Light Brown Grey Silt, Mixed	Medieval
41	Deposit		33	Orangey brown loose sand	Post-medieval
42	Deposit		23	Very dark brown silt	Modern
43	Masonry			Modern drain	Modern
44	Cut	Construction cut		Construction cut for under-croft	Medieval

Appendix 1b: OASIS Feature Summary

Period	Cut Type	Total
Medieval	Pit	2
	Construction cut	1
Post-medieval	Pit	2
	Construction cut	2
Modern	Construction cut	3

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period
5	Pottery	6	188g	Modern
5	Human Skeletal Remains	2	35g	Unknown
11	Pottery	2	38g	Modern
16	Pottery	4	76g	Late Saxon
16	Animal Bone	2	17g	Unknown
17	Pottery	11	114g	Medieval
17	Ceramic Building Material	2	38g	Medieval
17	Animal Bone	6	22g	Unknown
18	Pottery	2	40g	Medieval
42	Pottery	5	63g	Late Saxon
30	Pottery	6	100g	Late Saxon
30	Animal Bone	3	30g	Unknown
34	Pottery	1	74g	Medieval
34	Ceramic Building Material	1	6g	Medieval
35	Pottery	24	82g	Late Saxon
35	Animal Bone	1	4g	Unknown

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Late Saxon	Pottery	39
Medieval	Ceramic Building Material	3
	Pottery	14
Modern	Pottery	8
Unknown	Animal Bone	12
	Human Skeletal Remains	2

Appendix 3: Pottery

Context	Fabric	Form	Rim	No	Wt/g	Spot date
5	GRE			1	8	16th-18th c.
5	REFW	Dish		2	46	L.18th-20th c.
5	REFW	Plate	EV	2	123	L.18th-20th c.
5	REFW	Plate	EV	1	11	L.18th-20th c.
11	REFW			1	7	L.18th-20th c.
11	ESW	Blacking bottle	UPPL	1	31	17th-19th c.
16	THET			2	24	10th-11th c.
16	THET	AC jar	6	1	27	11th c.
16	THET	AB? Jar	4	1	25	L.10th-11th c.
17	THET			7	57	10th-11th c.
17	THET	AC jar	6	1	11	11th c.
17	GRIM			2	20	L.12th-14th c.
17	GRIM			1	26	L.12th-14th c.
18	THET			1	10	10th-11th c.
18	GRIM			1	30	L.12th-14th c.
24	THET			3	38	10th-11th c.
24	THET	BB3 bowl	INT	1	22	10th-11th c.
24	EMWSS			1	3	11th-13th c.
30	THET			1	5	10th-11th c.
30	THET			1	2	10th-11th c.
30	THET	LSV		1	48	10th-11th c.
30	THET	AB jar	4	1	35	L.10th-11th c.
30	EMW			2	10	11th-12th c.
34	STAMB			1	74	M.11th-M.13th c.
35	THET			18	60	10th-11th c.
35	EMWSS			3	8	11th-13th c.
35	EMW	Jar	SEV	1	3	11th-12th c.
35	UNID			1	3	
35	UNID			1	8	

Notes:

Form: LSV – large storage vessel; AB – medium jar; AC – large jar.

Rim: UP – upright; PL – plain; S – simple; EV – everted; 1-7 – Thetford ware types.

Appendix 4: Ceramic building material

Context	Fabric	Form	No	Wt/G	Mortar	Glaze	Comments	Date
17	Est	RT	1	16	Yes		Flake	Medieval
17	FS	RT	1	22		Orange brown	Thick, possible ridge tile	Medieval
34	Est	RT	1	6		Green	Flake	Medieval

Notes:

Fabric: Est. – estuarine, FS. – fine sandy

Form: RT – roof tile.

Appendix 5: Animal Bone

Context	Ctxt Qty	Ctxt Wt(g)	Species Group	Species	NI SP	Zone/s	Age	Butchering	Skin	Comments
16	2	17	S-MDM	Sheep/goat	2	ll	a	c	1	cut proximal metacarpal & distal metatarsal
17	6	22	S-MDM	Mammal	1					
			LDM	Mammal	1					
			M	Mammal	3					
			LDM	Cattle	1	f	j	ch		
30	3	30	S-MDM	Mammal	1					
			LDM	Mammal	1					
			S-MDM	Sheep/goat	1	ul		c, ch		humerus
35	1	4	LDM	Cattle	1	t			pre-molar 4	

Key: NISP = Number of Individual Species elements Present.

Species Group: S-MDM = Small-Medium Domestic Mammal;
LDM = Large Domestic Mammal, M = Mammal

Age = Estimate age based on fusion of bones and tooth wear; a = adult, j = juvenile

Zone = LL = lower limb, UL = Upper Limb, T = Teeth, F = Footbones

Butchering: c = cut, ch = chopped