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Archaeological Investigations at The North Annexe, York Guildhall: 2020 Excavation 1

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YAT Excavation Report Interim 2020/119 December 2020





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Abbreviations

AOD	Above Ordnance Datum
BGS	British Geological Survey
BGL	Below Ground Level
CBM	Ceramic Building Material
CYC	City of York Council
WSI	Written Scheme of Investigation
YAT	York Archaeological Trust

NON-TECHNICAL SUMMARY

Between the 11th May 2020 and the 21st June 2020 2019 York Archaeological Trust conducted an archaeological excavation at the North Annexe of the City of York Guildhall (NGR SE 6006 5194).

The work was undertaken for City of York Council (CYC) to satisfy the planning conditions for planning consent linked with application 16/01971/FULM and amendments 19/00806/NONMAT. The archaeological work was completed following a Works Specification produced by City of York Council, a YAT Project Proposal and a revised Written Scheme of Investigation (WSI) produced by YAT. This involved a watching brief on ground reductions for the new construction within the North Annexe area of the Guildhall redevelopment.

The area was upgraded to excavation once it was established that groundworks would affect a significant sequence of archaeological deposition, dating from the 12th century to the modern period. This included a major event of made ground and levelling, truncating an abundance of Roman material, to raise the landscape adjacent to the River Ouse in the 12th-13th centuries. This was overlain by evidence of the Augustinian Friary dated to the 13th-16th centuries. The Post-Medieval period identified extensive truncations of the Friary and reuse of the structural material to construct later buildings and a graveyard, before the entire area was demolished and levelled to pave the way for the construction of the North Annexe and North Annexe Tower in the late 19th-20th century.

KEY PROJECT INFORMATION

Project Name	North Annexe of the City of York Guildhall
YAT Project No.	6019
Document Number	2020/119
Type of Project	Excavation
Client	City of York Council
Planning Application No.	16/01971/FULM
NGR	NGR SE 6006 5194
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1 INTRODUCTION

Between the 11TH May 2020 and the 21st June 2020 YAT carried out an excavation at North Annexe of the City of York Guildhall (NGR SE 6006 5194) (Figure 1 Site Location).

The archaeological works were undertaken for the City of York Council to satisfy planning condition 16 within application 16/01971/FULM;

16 A programme of archaeological mitigation, including further evaluation work, excavation, public access & community engagement, post excavation assessment & analysis, publication, and archive deposition is required in connection with this development. The applicant will submit an archaeological project design for archaeological mitigation on this site.

The works set out in the project design shall be approved and discharged in the following 3 stages: A) No development shall commence until an archaeological project design including a written scheme of investigation (WSI) describing the archaeological project (excavation, deposit monitoring, public access and engagement, post-excavation assessment and analysis, publication and archive deposition) has been submitted to and approved by the local planning authority in writing. The WSI should conform to standards set by the Chartered Institute for Archaeologists.

B) The site investigation, deposit monitoring, post investigation assessment and analysis, report preparation and submission for publication, and archive deposition shall be completed in accordance with the programme set out in the project design and WSI approved under (A). This part (B) of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the approved project design and WSI and have been approved by the local planning authority in writing.

C) A copy of a report or publication of the project shall be deposited with City of York Historic Environment Record to allow public dissemination of results within 12 months of completion of works on site or such other period as may be agreed in writing with the Local Planning Authority. This condition is imposed in accordance with Section 12 of NPPF. Reason: The site is of archaeological interest and lies within an Area of Archaeological Importance and the development may harm important archaeological deposits which must be recorded prior to destruction.

2 METHODOLOGY

The scope of works initially began under watching brief conditions. Whilst monitoring the removal of deep brick foundations of the North Annexe building, three disturbed graves were exposed along the edge of the trench, along with earlier archaeological deposits. These would have been affected by the disturbance of auger piles and therefore required hand excavation. The surviving remains of a possible graveyard lay approximately 150mm below the maximum construction formation depth, which did not enable an adequate buffer. After consultation with the City of York Archaeologist, Claire MacRae, a full excavation was carried out to identify the full extent of the cemetery and any other significant archaeology.

The excavation was initially carried out using an 8-tonne rubber tracked mechanical excavator. Machine excavation ceased when significant archaeological deposits were exposed. Three 3x3m trenches were, targeted on specific areas of interest for hand excavation, as agreed with the City Archaeologist, where the greatest pile impact would be. Each trench was 1.2m deep and included an additional 1x1m excavation in the centre to c.1,2m. (Figure 3).

The percentage of disturbance of archaeology affected by the auger piles were below the requirement for planning consent. However, at least 3 piles would have impacted upon a large magnesian limestone wall exposed across the site. This would have required the mechanical excavation of the wall to an unknown depth, affecting the archaeological deposits on either side. Where possible, pile locations were moved, and where this was not achievable the harm was mitigated via targeted excavation.

The site boundary and notable features were recorded and a 5m site grid aligned to OS using a Leica Viva GNSS-GS16 GPS unit (accurate to 10mm).

Colour digital photography was used to document archaeological contexts and to capture working shots of the excavation. Additional photographs were taken using a DSLR and a smartphone. Each context was assigned a unique four-digit context number, drawn in plan and recorded on a proforma context card. Significant features and deposits were also recorded photogrammetrically.

Finds were retrieved and bagged by individual context number and a judgement sampling policy was followed for the retrieval of environmental samples from suitable contexts. A total of 7 environmental samples were taken.

All site records for this excavation are currently stored with York Archaeological Trust under the project number 6019. The site archive is in the process of being digitised and entered into York Archaeological Trust's Integrated Archaeological Database (IADB Project 6019).

This report is an interim stratigraphic assessment and interpretation. At the time of writing, detailed environmental sample analysis has been delayed by the impact of covid-19 measures and the data will not be available until early 2021. When it is complete, this report will be updated and reissued. This updated report will include full illustrations covering all the works listed below.

In addition to this excavation, an associated programme of borehole survey was undertaken. An interim report for this work, YAT 2020/120, has been issued alongside this report. Subsequent to this work, a further excavation was undertaken in October-November 2020, for which an evaluation report is pending; prior to this work, a watching brief was in operation (YAT2019/164) and has since recommenced. All these phases of work will be synthesised into a single assessment report in 2021.

3 LOCATION, GEOLOGY AND TOPOGRAPHY

The Guildhall lies between Lendal, St Helen's Square and the River Ouse, which it overlooks. The site is a roughly u-shaped plot of land located 0.36km south-west of the Minster. It is bounded to the south-west by the River Ouse and the York Boat mooring, whilst mainly commercial properties bound the site to the north-west and north-east. An area of open ground currently

used as a terrace for adjacent bars lies to the south-east. The site can be accessed from two covered passageways running south-west from Lendal and St Helen's Square. The footprint of the site is roughly 0.3ha.

The Guildhall buildings and their immediate surrounds are generally level between 10.44m AOD and 11.31m AOD, however, the natural ground surface slopes steeply downwards from Lendal to the River Ouse. Therefore, the current structural elements of the site have clearly been built on artificially raised and levelled ground. The ground level on Lendal is about 14.3m AOD and mean summer river level of the Ouse is 5m AOD.

The underlying solid geology for the site is the Sherwood Sandstone Group. The superficial geology immediately adjacent to the River Ouse is Alluvium whilst further up the slope is clay and silty deposits of the Alne Glaciolacustrine Formation (British Geological Survey).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The chronological sequence of the Guildhall and its later series of ancillary buildings are relatively well understood. In recent years this knowledge has been significantly expanded through a number of documentary and physical investigations into the site itself as well as its immediate surrounds. The following summary is adapted from the YAT project design (Reeves and Milsted 2017/115a).

Roman

The site is located immediately to the south-west of the Roman fortress defences, with the main gatehouse being located in St Helens Square. Evidence of Roman roads have been found along the front of the fortress, along the Lendal/Coney Street/Spurriergate alignment, as well as running towards a former crossing over the Ouse, potentially under the medieval Guildhall.

Anglian / Anglo-Scandinavian

The earliest reference to Coney Street (which previously extended to include Lendal and Spurriergate) was in the mid-12th century, though it would have been part of the earlier Roman road network, and continued in use throughout the Anglian and Anglo-Scandinavian periods. It is possible that structures in the area also continued in use throughout these periods and therefore it is likely that at the very least small pockets of occupation from this period will be present on site, or in the immediate vicinity.

Medieval

An Augustinian Friary was established in 1272 and eventually extended across much of the development site, with the Guildhall, when built, acting as a boundary to the south-east of the complex. The friary was ultimately dissolved in 1538, but whilst in use would have comprised of numerous individual buildings, structures and also a cemetery.

The Guildhall itself was referenced from the mid-13th century, but the current building was not actually built until the mid-15th century. It is unclear if the standing building occupies the same position as when it was first referenced.

Post-medieval

After the reduction of the Augustinian Friary buildings in the North-Annexe area and to the north of the Guildhall building, much of the study area became open ground. The Guildhall building itself continued to be in use with alterations and adaptation of the building and its surrounds as required.

In 1726 the construction of the Mansion House involved the demolition and removal of structures to the north-east, between the Guildhall building and St Helen's Square. The 18th century is also when many of the standing buildings along Lendal were constructed, and more significantly when the gardens to the rear were landscaped, giving the layout as presented on the first edition Ordnance Survey of 1852.

At the start of the 19th century additions to the south-west of the Guildhall were built to accommodate council meetings.

Modern

Rapid and large-scale changes took place over the study area in the late 19th and early 20th centuries. New Municipal Offices were built c.1890 and then the North Annex was constructed c.1902, with the South Range built c.1904. Further structures were constructed in Common Hall yard in the early 20th century.

In the second half of the 19th century the boundary to the north-west of the site was altered and the wall rebuilt. The open space between this boundary and the North Annexe was filled by the construction of the 'Hutments' buildings, built c.1945. These were possibly built to accommodate council activities whilst repairs were underway following the April 1942 'Baedeker' bombing raid.

Recent archaeological investigations across the site have revealed the following;

In 2012 YAT (YAT 2012), as part of the York 800 celebrations, excavated two trenches within the Guildhall site, and one trench in the Mansion House cellar. One of the trenches was located along the southern wall of Common Hall Lane, a medieval covered lane which led to a Watergate and which is located below the Guildhall. Results from the trench showed that the current Guildhall building was constructed on top of an earlier building, potentially the earlier Guildhall that stood before the 15th century extant building. A second trench, located within Common Hall Yard, found a complicated archaeological sequence starting as early as the 12th century. Open yards were superseded by walls that may have been part of a chapel and/or a *maison dieu* constructed at the same time as the current Guildhall. Following this was a series of further surfaces and floors continuing into the post-medieval period, before demolition occurred across this part the site, linked with the construction of the Mansion House. Well stratified archaeological deposits were revealed within 500mm of the extant yard surface. A further trench in the basement of the Mansion House found natural deposits below the cellar floor level.

During 2014 AOC Archaeology Group (AOC 2015) excavated two trenches on the 'Hutments' site adjacent to the North Annexe buildings. The excavated trenches were between 1m and 1.3m deep with further 1m² test pits at the base. The excavations exposed archaeological remains including possible medieval walls (8.72-9.89m AOD), post-medieval horticultural features

(10.29m AOD), a rubble pathway (10.08m AOD) and extensive dumping and raising of ground levels. In addition to the trenches a series of five boreholes were monitored, all of which were positioned within the trenches excavated. The results of these recorded the presence of earlier alluvial deposits containing preserved organic material in boreholes located closest to the river, at depths between 4.83-6.05m AOD. All five boreholes contained a significant made ground (archaeology) component, the top of which was recorded between 9.28-10.25m AOD, sloping upwards from south to north. The thickness of the made ground also changed, from 4.45m thick at the south-west end of the site, to 2m thick at the north-east end. Borehole 1, which was closest to the river, encountered a below ground obstruction at 7.95m AOD, suggesting built structures are present on the site at depth.

In 2016 AOC Archaeology Group (AOC 2016) conducted further investigations through the method of test pits and boreholes. Adjacent to the North Annexe tower a test pit revealed disturbance linked with its construction, to a depth of 1.4m below the existing ground level. Two test pits excavated against the South Range wall indicated modern disturbance from its construction, also to a depth of around 1.4m below ground level. A borehole located between the South Range and Guildhall indicated potential for significant archaeological deposits at depth, in particular an organic rich deposit containing timber fragments and sherds of Late Saxon pottery which was recorded at 1.3m below the existing ground level. This gives possible indication of early medieval activity occurring in this part of the site. The boreholes recorded in the western part of the site also revealed waterlogged and organic deposits, likely dating from the medieval periods onwards. The deposits had a thickness of up to 3m and were thought to be accumulation of material associated with riverside activity and/or settlement. The depth of these deposits sloped down from north to south, from 3.9-5.1m BGL at the north end of the site, to up to 8m BGL at the south end. The accumulation material was subsequently overlain by demolition and levelling layers dating from the late to post-medieval.

Also in 2016 YAT (YAT 2016) undertook a watching brief during two phases of underpinning in the Mansion House. Much of what was revealed was linked with the 18th century construction of the building. However, there was evidence for a Roman road surface and a large possibly Anglo-Scandinavian pit.

In 2018 YAT (YAT 2018) monitored works including engineering pits and excavations for a lift shaft within the North Annexe building and yard areas. Internally, the lift shaft revealed deposits associated with the extant North Annexe building. The engineering pits revealed a substantial mix of yard soil and horticultural soil dated between the 18th and 19th centuries.

In conclusion there is significant archaeology, potentially relatively close to the extant ground levels around the Guildhall and Common Hall Yard. In relation to the North Annexe there is potentially around 4m of post-medieval and modern made ground and levelling deposits, before significant archaeology is encountered.

5 RESULTS

5.1 Phase 1: 12th-13th Century

5.1.1 Groups 118 and 124 – Multiple layers of made ground. (Figure 4 Plate 1)

The earliest archaeological features to be observed were located within the base of Trench 2 between 7.81m–9.68m AOD. These two groups comprised of dense striped deposits of made-ground and levelling deposits. Five of these deposits contained an abundance of demolished building material, including large fragments of mortar and wall-plaster, both plain and painted (Plate 2).

5.1.2 *Groups 122, 127 and 128 (Figure 5 Plate 3)*

Two pits and a thin layer of occupational dumped material were located within the base of Trench 3 between 7.51m–8.04m AOD. Due to the size of the trench, it was impossible to discern the full extent of these deposits, the nature of these features and how they might relate to similar features. However, they stratigraphically pre-date features associated with the construction of the 13th–16th century Augustinian Friary, and pottery recovered from them suggests a latest date of 12th century.

5.2 **Phase 2: 13th–16th century**

5.2.1 *Groups 123, 125 and 126 (Figure 4 Plate 4)*

A series of rubbish pits and occupational dumps were present within Trench 2 between 7.49m–9.99m AOD. Groups G123, G125 and G126 were similar in nature to the aforementioned groups G122, G127 and G128. Although these groups may be contemporary due to their similar characteristics, which suggest Medieval backyard plots for the frontage of Lendal, G123, G125 and G126 have been phased into the 13th – 16th century. This was because the pottery dates of the pits G126, the earliest in this grouping, contained datable evidence suggestive of the 13th–14 century (Plates 5). This sequence may demonstrate a continuity of land-use from the 1100s onwards until the building of the priory.

5.2.2 *Groups 119 and 130 Possible original construction of friary building.*

Groups G119 and G130 are the structural components of a large building between 7.59m–9.65m AOD. They comprise the earliest phase of a magnesian limestone wall that had a north-east/south-west alignment (Plate 6). A return for this wall G130 ran west-south-west/east-north-east, and was truncated by robber trench G112, removing the components of this wall in its entirety within the limits of excavation (Plate 7). The wall incorporated subterranean arches of wedge-shaped magnesian limestone blocks, observed within trenches 2 and 3, possibly to reinforce the structural integrity of the foundations. The dimensions, alignment and the stratigraphic sequence, confirmed the magnesian limestone wall G119 and the visible construction cut of wall G130 were contemporary.

5.2.3 *Groups 115, 116 and 129*

Once the construction of the structural elements was complete or ongoing, there appeared to be a levelling processes for internal floor levels, seen within a 1.00m x 0.50m trench at the base of Trench 4, between 7.86m–8.28m AOD. This was directly below a possible hearth or oven type structure.

5.2.4 *Groups 114 and 121*

G114 was an internal structure located towards the base of Trench 4 between 8.26m–8.51mAOD. This comprised of fragmented upright roof tiles with evidence of heat affection towards the surface, indicating burning *in-situ* (Plate 8). This was overlain by a lime mortar floor

layer and an ashy charcoal spread, which suggested this may have been the location of an oven or hearth built up against the subsequently robbed-out wall G130.

The remains of a floor surface, G121, were located within Trench 3 between 8.02m-8.35mAOD. There also appears to be a continuation of a robbing event, likely contemporary with the robbing of wall G130 from a later period, evidenced by the only surviving element of surface present, a mortar spread that could have been the make-up for a floor surface (Plate 9).

5.3 Phase 3: Post-Medieval

5.3.1 Groups 112, 113, 117 and 120

These groups make up the earliest features of the Post-Medieval phase. They consist of a series of levelling deposits, between 8.29m-9.16m AOD linked with a major landscaping event prior to the construction of a 17th-18th century structure. This sequence was observed within Section 3 of Trench 3 (Figure 5 Plate 10).

5.3.2 Groups 107, 108, 110 and 111. 17th-18th century building

A 17th-18th century building was present towards the south-west and south-east ends of the excavation area, G108 and G107 respectively. G108 comprised of a magnesian limestone wall and contained a relatively high percentage of reused building material, between 8.61m-9.17m AOD. This also contained a red brick floor located at the westernmost end of the excavation area butting against the stone wall.

G107 was located within Trench 1 during the watching brief phase of works for the underpinning of the North Annexe Tower. A series of related post-medieval laminated floor make-up layers, some only 10mm in thickness, were discovered in Trench 1 at the base of the underpinning trench. The top of these floor layers was recorded at around 8.84m AOD, and extended to a depth of 8.45m AOD. They were built up against a single course of cuboid shaped roughly worked blocks of magnesian limestone (Plate 11), which likely formed a decorative edging or kerb.

G110 comprises of the features that make up later alterations and reusing wall G119, including 2 buttresses located within the central and northern segments of the wall (Plate 12), as well as significant mortar infilling on the southern side.

5.3.3 Group 109. Disturbed graves

G109 comprised of five heavily truncated graves located at the north-eastern end of the excavation area on the eastern side of the larger magnesian limestone wall buttresses G110, with three of these located at the top of Trench 2. All five grave cuts were neatly spaced and orientated at a west-north-west/east-south-east angle, with similar heights ranging between 9.00m-9.83m AOD. However, all five graves were so heavily disturbed by a phase of demolition works, G105, that no articulated skeletal remains survived *in situ* (Plate 13).

It was difficult to discern the stratigraphic relationship of these graves with the later alterations of the larger stone wall G110. There was no visible evidence, either of the construction cut of the northernmost buttress at this height or to show that the graves were later than the buttresses. However, dating evidence from the grave backfills suggested they were no later than

the 16th century, which may show they are associated with the latest phase of a graveyard contemporary with the Augustinian Friary.

5.3.4 Group 106. Pits

Two pits truncated the 17th-18th century magnesian limestone wall G108. The purpose of pits is unknown although they contained refuse indicative of rubbish pits. These pits appear to be isolated features between 8.51m-9.19m AOD that do not relate to other features on site.

5.4 Phase 4: Modern

5.4.1 Groups 101, 102, 103, 104 and 105. North Annexe Building.

It appears most of the excavation area was subject to a single landscaping event followed by ground levelling and raising comprising of demolition and extensive dumps of CBM and rubble, G105, observed between 8.84m-9.50m AOD. The date of this event is unknown but the stratigraphy suggests it relates to the demolition of the 17th-18th century building, G108, prior to the construction of the North Annexe in 1906.

The significant construction cut for the foundation of the North Annexe tower, G102, was revealed during a watching brief for the underpinning trench excavation and located on the east side of Trench 1. This construction cut post-dated the robber trench G104 and was sealed by an extensive horticultural soil layer G103. This was featured across the full extent of the site between 9.40m-9.64m at the northernmost end, and 9.59m-10.09m at the southernmost end of site. Removal of the ground around the tower revealed the external face of the foundation, including two brick arches, thought to be for reinforced structural stability (Plate 14).

The latest feature on site was the remains of a possible telegraph posthole, G101.

6 DISCUSSION

There were no *in-situ* archaeological deposits dated to the Roman period in the excavation area. However, there was a large amount of residual Roman material consisting of painted plaster and mortar, tesserae and large fragments of CBM. Although there was no presence of structural robbing, it is highly likely that Roman structures were present within the extent of the excavation area below the maximum depth reached in 2020.

The earliest deposits exposed during this excavation are a significant phase of made ground located in the north-easternmost area of the excavation, comprising of dumps and levelling processes in order to raise the ground next to the River Ouse to the south-west. The presence of 12-13th century pottery within these deposits may suggest they represent preparatory ground work for the subsequent construction of buildings associated with the friary of Saint Augustine, which stood through to the mid-16th century.

The stratigraphic sequence shows that the earliest structures are the larger wall G119 and G130, both thought to be the remains of a structure linked with the friary. Also exposed were possible internal floor surfaces, situated within Trenches 3 and 4, Groups G114 and G121. These may have formed the ground level during the use of the friary. This is supported by a similarity in datum heights, which suggested a contemporary floor surface within separate internal rooms.

These separate rooms were likely divided by a large partition wall, G130. The nature of the first room G121 in Trench 3 is unknown due to significant robbing in the Post-Medieval period. The

second room, G114, in Trench 4 contained a significant edge-laid tile floor surface with evidence of burning in-situ. This may have been the remains of an oven or hearth. The similarity in datum heights between these two groups further strengthen the interpretation of a contemporary building with internal floor surfaces.

The larger magnesian limestone wall appeared to have been reused as an extension of a 17th-18th century building, as part of a wider complex with a similar alignment to the magnesian limestone wall G108.

The dating of the heavily disturbed graveyard on the north-east section of site was uncertain. The stratigraphic relationship between this graveyard, the larger magnesian limestone wall G119 and the later alterations G110 was unclear. However, the lack of disturbed human remains on the western side of the larger magnesian limestone wall G119, suggest that the graveyard was confined to the eastern side of the wall and may possibly be contemporary with the friary. The alternative suggestion of it post-dating wall G119 may challenge the interpretation of that structure as a post-priory feature,

There was no cartographic evidence of the 17th-18th century structure prior to its discovery during the excavation. It may represent continued use of the area after the friary and its complex passed into private ownership after the Dissolution of the Monasteries in 1538 (RCHMY 1981).

7 FURTHER WORK

This report is an interim assessment of the excavation carried out in May/June 2020. Several assessment tasks remain to be completed at the time of issuing this report:

- Full illustrations
- Integration of all specialist reports
- Environmental sample assessment
- Revise and re-issue Guildhall Excavation 1 assessment report
- Completion of assessment report for Guildhall Excavation 2
- Integration of all Guildhall assessment reports
- Updated project design for analysis and publication

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Small Finds Analysis: R. Sampson

Ceramic Building Material Analysis: J. McComish

Human Bone Analysis: G. Gallio

Animal Bone Analysis: N. Van Doorn

APPENDIX 1 – INDEX TO ARCHIVE

Item	Number of items
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Photographic register	0
Sample register	1
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Original drawings	64
B/W photographs (films/contact sheets)	0
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Report	1

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APPENDIX 2 – CONTEXT LIST

Context Number	Set	Group	Phase	Description
3000	1000	100	1	Unstratified.
3001	1003	103	1	Friable, dark brownish grey, silty clay with moderate small to medium cobbles, pebbles, fragments of CBM and flecks of mortar.
3002	1004	104	1	Friable, light yellowish greyish white, sandy mortar and rubble with frequent limestone chips and small fragments, flecks and small fragments of lime mortar.
3003	1004	104	1	Cut of robber trench. Linear shape in plan. Moderately U-shape profile. Possibly cut during the construction for the foundations of the North Annexe building.
3004	1005	105	1	Loose, mid greyish brown, silty sand with frequent small to large fragments of CBM, mostly roof tile fragments. Tile dump.
3005	1002	102	1	Firm to friable, dark greyish brown, clayey silt with frequent small to medium stones, small to large CBM fragments, occasional fragments of concrete and flecks of charcoal.
3006	1002	102	1	Construction cut of the North Annexe building. Linear shape in plan. Sharp U shape profile.
3007	1006	107	2	Friable, dark greyish brown to light greyish brown, clayey silt with moderate flecks of charcoal, flecks and small fragments of CBM and occasional small fragments of pale grey lime mortar.
3008	1007	107	2	Limestone wall/kerb. Components are 2 large rectangular limestone architectural fragments. North-west/south-east orientation. 2 courses long, 1 course deep. Neatly dressed surface but rougher towards the base. Bonded with a pale yellowish white lime mortar packed either side with sandy clay with limestone fragments (3014) and (3016). Dimensions of in-situ block: 0.72m x 0.14m x 0.25m.
3009	VOID	VOID	2	VOID
3010	1007	107	2	Cut of wall/kerb. Linear shape in plan. Vertical U-shape profile. Possible kerb side for a possibly robbed out pathway truncated by [3006].
3011	1006	107	2	Firm to friable, mid greyish brown, clayey silt with lenses of red sand and mortar, frequent flecks of charcoal.
3012	1006	107	2	Compact, light greyish white, chalky mortar with occasional flecks and small fragments of CBM, specifically tile fragments, flecks of charcoal and small fragments of coke.
3013	1006	107	2	Friable, light greyish brown, sandy silt with moderate flecks of mortar, flecks and fragments of CBM, small fragments of stone and occasional flecks of charcoal.
3014	1007	107	2	Firm, mid orangish brown, sandy clay with a lens of pale yellowish grey lime mortar, frequent small to medium fragments of limestone and flecks and fragments of mortar.
3015	1008	107	2	Firm to friable, mid brownish grey, clayey silt with occasional flecks of charcoal and small rounded pebbles.
3016	1007	107	2	Firm, mid to dark greyish brown, sandy clay with frequent small to medium angular fragments of limestone, flecks to small fragments of lime mortar and occasional flecks of charcoal.

Context Number	Set	Group	Phase	Description
3017	1008	107	2	Friable, light greyish yellowish white, sandy mortar with occasional small stones/gravels.
3018	1008	107	2	Soft to friable, light greyish white mortar bedded on a thin lens of light soft pinkish grey sand with occasional small stones/gravels and flecks of CBM.
3019	1008	107	2	Soft to friable, mid brownish grey sandy silt with occasional flecks of CBM and flecks of charcoal.
3020	1008	107	2	Friable, dark greyish brown, clayey silt with small fragments of limestone, flecks and small fragments of lime mortar and occasional flecks of charcoal.
3021	1001	101	1	Compact, dark brownish grey, silty sand. Contained the remains of a telegraph pole
3022	1001	101	1	Cut of modern posthole. Sub-oval shape in plan. E-W orientation. Sharp break of slope at top, vertical sides, sharp break of slope from sides to base. base is flat. Truncates wall 3088.
3023	1019	106	2	Loose yellowish-brown silty sand with lime mortar. Moderate flecks of charcoal noted with occasional fragments of CBM
3024	1019	106	2	Sub oval shape in plan with NE-SW orientation. L: 0.80 m W: 0.55 m D: 0.34 m. Moderate break of slope at the top with concave sides. Moderate break of slope from sides to flat base.
3025	1012	105	1	Loose light yellowish greyish brown coarse silty sand with frequent fragments of limestone.
3026	1062	118	4	Friable to firm mid greenish brown clayey silty sand. Frequent flecks and fragments of sandstone mortar. Occasional flecks of charcoal and small angular pebbles.
3027	1013	106	2	Friable dark greyish-brown silty sand with moderate fragments of limestone and large angular pebbles.
3028	1013	106	2	Friable light white-ish yellow silty sand lime mortar. Occasional fragments of CBM and flecks of charcoal are observed.
3029	1013	106	2	Friable dark greyish brown sandy silt with moderate flecks of limestone, fragments of CBM and small angular cobbles.
3030	1013	106	2	Sub-oval shape in plan. N-S orientation. L: W: D: Sharp break of slope at top. Sharp concave sides. Moderate break of slope from sides to base. Base is flat. Cut of pit of unknown function.
3031	1016	109	2	Firm to loose mid yellowish brown with white flecks gritty sandy silt. Frequent limestone fragments observed with medium rounded pebbles, small fragments of CBM and fragments of oyster and mussel shell.
3032	1017	109	2	Loose dark greyish brown sandy silt grave back fill with frequent large angular limestone, broken brick and CBM with occasional oyster shell.
3033	1018	109	2	Loose mid yellowish-brown silty sand with frequent large angular limestone fragments and moderate flecks of charcoal.
3034	1018	109	2	Sub rectangular shape in plan. NW-SE alignment with sharp break of slop at top, concave sides and a moderate break of slope from sides to flat base
3035	1016	109	2	Sub rectangular shape in plan with NW-SE alignment. Sharp break of slop at top with vertical sides. Moderate break of slop from sides to relatively flat base.

Context Number	Set	Group	Phase	Description
3036	1017	109	2	Sub rectangular shape in plan. NW-SE alignment with sharp break of slop at top and vertical sides. Sharpe break of slop from sides to flat base.
3037	1027	113	2	Friable dark greyish-greenish brown silty sand. Moderate small to large angular stones and flecks of charcoal. Occasional flecks of limestone.
3038	1020	109	2	Loose light greyish brown sandy silt. Frequent small to large angular limestone fragments, flecks and fragments of CBM.
3039	1020	109	2	Loose light greyish brown sandy silt. Frequent small to large angular limestone fragments, flecks and fragments of CBM.
3040	1012	105	1	Loose greyish brown sandy silt with frequent large angular limestone and CBM. Occasional flecks of charcoal observed.
3041	1021	109	2	Grave cut. Sub rectangular shape in plan. ENW-WSE alignment. Moderate break of slop at top and concave sides. Sharp break of slope from sides to base. Flat base.
3042	1057	123	3	Friable to loose mid yellowish brown silty sand
3043	1021	109	2	Loose greyish brown sandy silt with frequent large angular limestone, CBM and occasional pinkish-grey clay lenses.
3044	1022	110	2	Hard rectangular light greyish white limestone buttress foundation with loose- friable light yellowish grey lime mortar.
3045	1022	110	2	Soft dark greyish brown sandy silt within cut 3046
3046	1022	110	2	Sub-rectangular cut with a SW-NE axis. Not fully excavated. In section observed to have a sharp break of top slope with tapered sides with a flat base.
3047	1057	123	3	Firm light greyish brown sandy silt. 0.05m thick with frequent large angular limestone fragments, CBM and mortar lumps.
3048	1027	113	2	Firm/ compacted dark brown mottle with orange patches. Clayey silt with frequent lumps of clay, CBM and occasional flecks of oyster shell.
3049	1060	125	3	Dark greyish brown firm sandy silt with 0.03m thickness. Frequent greyish clay lenses, fragments of CBM and occasional flecks of charcoal.
3050	1056	126	3	Loose dark greyish brown sandy silt 0.46m thick. Frequent large angular limestone lumps with mortar and medium amounts of charcoal.
3051	1057	123	3	Firm light orangish-brown sandy silt.. Moderate flecks of limestone and flecks charcoal
3052	1057	123	3	Coarse mid yellowish-brown silty sand. Frequent large rounded cobbles and occasional flecks of charcoal observed.
3053	1058	124	4	Coarse compact mid greyish brown small rounded pebble deposit. With frequent flecks of charcoal and moderate lenses of firm grey clay.
3054	1027	113	2	Firm to friable dark greenish greyish brown sandy silt. Moderate small to medium smooth angular pebbles, flecks and fragments of CBM, Flecks of charcoal and flecks of limestone. Occasional flecks and fragments of oyster shell.
3055	1011	106	2	Loose to friable dark greyish brown gritty clayey silt with frequent flecks of lime mortar.

Context Number	Set	Group	Phase	Description
3056	1028	113	2	Firm mixed mottled dark reddish-brown w dark charcoal lenses silty clay. With frequent fragments of charcoal, small to medium CBM and small fragments of mortar.
3057	1039	113	2	Firm to loose light whitish yellowish brown with dark and brown mortar silt lenses.
3058	1028	113	2	Firm mixed light orangish brown/dark brownish grey sandy clay. Moderate flecks of charcoal, small to medium angular limestone fragments, patches of orangish brown clay. Occasional flecks and fragments of CBM
3059	1028	113	2	Linear shape in plan. WNW-ESE orientation. L: W: D: Sharp break of slope at top. Moderate convex sides. Gradual break of slope from sides to base. Base is flat. Cut of possible gully or pit of unknown function. Reason for the suggestion of a gully is the linear shape in plan.
3060	1011	106	2	Mid greyish brown gritty silt with frequent flecks of limestone fragments and lenses of mid brown clay with mortar
3061	1011	106	2	Linear NE-SW cut with moderate stepped sides, sharpish break of slope and flat base. 0.70 m deep.
3062	1010	106	2	Friable mid greyish brown gritty silt with frequent fragments of lime mortar
3063	1010	106	2	Irregular circular cut with stepped moderate slope and a concave base.
3064	1059	126	3	Firm greyish greenish brown sandy silt. Frequent fragments of CBM tile and lumps of charcoal with occasional pinkish grey lenses.
3065	1059	126	3	Rectangular cut with SW-NE Axis. Unseen in plan or section.
3066	1062	126	3	Oval cut with SE-NW axis. Gradual break of slope from top with concave sides and uneven base. Filled by 3050.
3067	1062	118	4	Firm reddish pink homogenous clay.
3068	1024	111	2	Mid greyish brown rubbly silt with occasional CBM and round pebbles
3069	1010	106	2	Mid greyish clayey silt with frequent charcoal flecks and occasional flecks of CBM
3070	1024	111	2	Creamy white loose crushed mortar with occasional small fragments of CBM
3071	1062	118	4	Loose dark greyish brown- yellow sandy silt with frequent angular limestone.
3072	1023	108	2	Mid greyish brown gritty silt with a thick lens of orange sandy clay. Frequent rounded pebbles and occasional flecks of mortar observed.
3073	1023	108	2	Linear in plan NNE-SSW aligned with vertical sides. Sharp break of slope at base.
3074	1025	111	2	Mixed dark grey reddish brown clayey gritty silt with frequent CBM fragments and mortar
3075	1025	111	2	Irregular circular cut with gradual sloping sides and concave base.
3076	1038	113	2	Friable dark grey clayey silt with occasional flecks of lime mortar
3077	1038	113	2	Linear rectangular with moderate vertical sides. No visible base.

Context Number	Set	Group	Phase	Description
3078	1040	113	2	Mid greyish brown clayey silt with occasional lumps of burnt clay and occasional charcoal flecks
3079	1023	108	2	Pinkish orange sandy clay-silt
3080	1041	117	2	Firm to soft mid brownish-orange clayey sand with patches of firm clay. Frequent small angular fragments of limestone observed.
3081	1047	120	2	Mixed deposit of loose mid orangey brown sandy clay with frequent cobbles and mortar
3082	1062	118	4	Friable yellowish-green mortar deposit with frequent large angular plaster deposit and angular limestone fragments.
3083	1009	108	2	Red brick floor butting against magnesian limestone wall C3090.
3084	1026	112	2	Loose greyish white mortar and frequent limestone with CBM fragments.
3085	1026	112	2	Linear cut NW-SE aligned, Vertical sides with gradual break of slope at base. Base not visible
3086	1062	118	4	Firm light reddish brown silty clay and lenses of sandy silt with frequent small specks of sandy patches.
3087	1055	119	3	Construction cut backfill within C3089
3088	1055	119	3	Largest magnesian limestone wall
3089	1055	119	3	Construction cut, contains C3087 and C3088
3090	1023	108	2	Post-Medieval magnesian limestone wall within C3073
3091	1047	120	2	Demolition dump containing frequent Roman plaster and mortar fragments
3092	1062	118	4	Friable to loose mid greyish green silty sand with lenses of limestone fragments and frequent flecks of charcoal.
3093	1048	121	3	Potential floor surface. Firm compacted plaster surface with sandy silt. Greyish white with frequent crushed limestone and lime mortar.
3094	1049	121	3	Compact mid brownish-grey silty sand. Moderate flecks of limestone. Occasional flecks of charcoal, small to large angular pebbles and small patches of reddish clay.
3095	1062	118	4	Friable to loose with dark blueish-blackish grey sandy silt and frequent flecks and fragments of charcoal.
3096	1029	114	3	Yellowish white compacted mortar with frequent limestone
3097	1043	130	3	Linear cut NW-SE aligned. Straight sloping sides with sharpish break of slope and flat base.
3098	1029	114	3	Friable dark greyish black silt with frequent charcoal
3099	1030	114	3	Burnt red CBM tiles. Each 0.25-0.10 m long/ 0.10 m wide and 0.80 m thick. Bonded with reddish sandy clay with frequent charcoal
3100	1062	118	4	Friable to loose light greenish grey sandy silt with patches of clay and frequent flecks of charcoal.
3101	1062	118	4	Firm greyish pink clay homogenous deposit.
3102	1049	121	3	Compact, mixed light whitish grey/mid brownish grey silty sand. Possible floor make-up.
3103	1062	118	4	Friable yellowish-brown mortar and plaster deposit with frequent lumps of charcoal and angular limestone fragments.

Context Number	Set	Group	Phase	Description
3104	1050	121	3	Friable, dark brownish grey, sandy silt. Frequent flecks of limestone. Moderate flecks and fragments of charcoal. Occasional small rounded pebbles, flecks of CBM and flecks of oyster shell
3105	1062	118		Compact mid greyish green silty sand deposit with frequent medium lumps of charcoal and lenses of hard greenish clay.
3106	1050	121	4	Friable, mid brownish grey sandy clay. Moderate flecks of limestone, Occasional flecks of charcoal, flecks of oyster shell and small angular pebbles.
3107	1030	114	3	Burnt red CBM tiles. Each 0.25-0.10 m long/ 0.10 m wide and 0.80 m thick. Bonded with reddish sandy clay with frequent charcoal
3108	1062	118	3	Loose light yellowish brown silty sand with occasional flecks of charcoal.
3109	1051	122	4	Friable, light reddish orangish brown sandy silt. Occasional flecks of limestone, flecks of charcoal
3110	1052	127	4	Firm dark greyish brown sandy clay. Occasional patches or reddish clay, flecks of charcoal, flecks of limestone, small to large angular and rounded pebbles
3111	1062	118	4	Firm light blueish green mottled silty sand with frequent fragments of charcoal. Same as 3112
3112	1062	118	4	Firm light blueish green mottled silty sand with frequent large fragments of charcoal. Same as 3111.
3113	1051	122	4	Unknown shape in plan, NE-SW orientation, Gradual break of slope at top, shallow concave sides, gradual break of slope from sides to base, base was unknown.
3114	1037	114	4	Burnt limestone blocks, bedded in orange pink burnt clay
3115	1037	114	3	Rectangular with rounded corners. Shallow moderately sloping sides with sharpish break of slope and flat base
3116	1053	128	3	Soft, dark brownish grey, sandy clay, Occasional flecks and small fragments of limestone and sandstone, flecks of charcoal.
3117	1054	124	4	Firm, dark greyish brown, silty clay. Occasional flecks of charcoal, flecks of limestone, large rounded pebbles. Located towards the base of TR3 and heavily truncated by a later pit 3118. possible dump but only small area exposed due to the L.O.E
3118	1053	128	4	Sub-oval shape in plan, N-S orientation, L: 0.70m+ W: 0.45m+ D: 0.28m+, sharp break of slope at top, moderately concave sides, unknown break of slope from sides to base, unknown base. surpassed L.O.E. Cut of Pit of unknown function.
3119	1031	114	4	Friable black silt and frequent charcoal
3120	1031	114	3	Circular cut with steep sloping sides and gradual break of slope to a concave base
3121	1033	114	3	Mid dark greyish brown friable clayey silt with occasional flecks of charcoal
3122	1033	114	3	Circular cut with moderate sloping sides and a gradual break of slope to a concave base
3123	1042	116	3	Orange and grey burnt soft silty clay with frequent lumps of clay with occasional flecks of mortar

Context Number	Set	Group	Phase	Description
3124	1034	114	3	Dark grey friable silty charcoal
3125	1062	118	4	Firm greenish-brown clay deposit with large rounded-flat stones and frequent lumps of charcoal
3126	1035	115	3	Greyish white and pink mortar deposit
3127	1035	115	3	Irregular in shape with moderate uneven sloping sides with a gradual break of slope and concave base.
3128	1036	115	3	Greyish white loose mortar with crushed limestone
3129	1036	115	3	Subcircular cut with moderate straight sloping sides to a gradual break of slope and a concave base
3130	1042	116	3	Mid greyish soft clayey silt with frequent charcoal flecks and occasional mortar and sandstone fragments
3131	1042	116	3	Greenish grey brown friable clay silt with occasional charcoal flecks and lumps of clay
3132	1062	118	4	Firm greyish blue-grey silty clay deposit with frequent charcoal and organic fragments.
3133	1058	124	4	Firm light brownish grey silty clay.
3134	1058	124	4	Friable dark bluish grey charcoal layer
3135	1058	124	4	Friable dark bluish grey charcoal layer
3136	1048	121	3	Firm dark greenish brown silty sandy silt with charcoal flecks
3137	1046	120	2	Loose mid brownish-grey sandy silty mortar with frequent small pebbles
3138	1046	120	2	Linear shape on a NE-SW alignment with sharp break of slope at top, sharp concave sides, and flat base
3139	1042	116	3	Moderately compact thin white mortar deposit
3140	1042	116	3	Mid dark greyish brown with soft silty clay and frequent charcoal flecks
3141	1047	120	2	Firm-friable mid orangey brown clayey sandy silt with frequent white plaster fragments
3142	1032	129	3	Friable light brownish grey sandy clay. Occasional flecks of charcoal, small to large angular pebbles, flecks of limestone, small patches of light grey clay
3143	1043	130	3	Soft greyish silt with occasional small pebbles and occasional charcoal flecks
3144	1043	130	3	Friable greenish grey silty sand and mortar
3145	1044	123	3	Light grey clayey silt with occasional mortar and CBM with limestone
3146	1015	110	2	Backfill of buttress no.2 C3147 within cut C3148
3147	1015	110	2	Buttress No.2. sub-square shape in plane. L: 1.35m W:1.42m D: 0.50m+ mixed components made up of roughly shaped magnesian limestone and sandstone blocks bonded by whitish lime mortar. All three buttresses appeared to have been constructed later than wall 3088.
3148	1015	110	2	Construction cut for buttress no.2 contains C3146 and C3147
3149	1014	110	2	Significant Post-Medieval mortar infilling on the southernmost section of wall C3088
3150	1055	119	3	Same as C3087
3151	1055	119	3	Same as C3088
3152	1055	119	2	Same as C3089

Context Number	Set	Group	Phase	Description
3153	1014	110	3	Mortar infilling of the south-westernmost side of wall 3088=3151
3154	1061	125	3	Light loose brownish red clayey silt with large frequent angular limestone, CBM and brick fragments with occasional lumps of charcoal.
3155	1061	125	3	Loose light brownish grey silty clay with large frequent angular fragments of limestone, CBM and brick with moderate flecks of charcoal.
3156	1045	117	2	Friable dark brownish bluish grey clayey sand. Occasional flecks of charcoal, CBM, Oyster shell and limestone.
3157	1013	106	2	Friable light whitish greyish brown silty sand. Frequent flecks of limestone, occasional flecks and fragments of CBM, flecks of charcoal and flecks of oyster shell

Table 2 Context list

APPENDIX 3 - POTTERY BY C JACKSON-SLATER

1 INTRODUCTION

During the Guildhall 2020 excavations 2,402 sherds of mainly domestic pottery were retrieved from 71 contexts. They ranged from the 1st to the 20th centuries, though the bulk of the material ranged from the Roman to medieval periods, with a small number dating between the 15th and 17th centuries. An even smaller number of Anglo Scandinavian sherds were also present.

There was a large amount of residuality within the medieval deposits, with a significant quantity of Roman material present in contexts dating to the 12th and 13th centuries. The Roman sherds were on the whole medium to large in size, unabraded with fresh looking breaks, indicating that the material had moved little and probably originated close by. A small amount of intrusive 11th and 12th century material was also found in Roman contexts; possibly present from surrounding later contexts.

The majority of Roman fabrics were Ebor (347 sherds) and local Grey wares (313 sherds), whilst the predominant medieval ware comprised 12th century Splashed Wares (999 sherds). The bulk of the Splashed wares originated from one context (C3052; 782 sherds), though they were still a dominant fabric throughout the site. Other fabrics recovered, including Gritty wares (83 sherds); York Glazed wares (46 sherds); Brandsby wares (27 sherds), and Reduced Green Glazed (21 sherds) were typical for York medieval assemblages (Mainman and Jenner 2013). A small number of sherds from the assemblage were defined as Fine or Moderately Oxidised Wares (FOX/MOX).

A small number of Anglo/Scandinavian wares including small, abraded sherds of York ware (7 sherds), shelly ware (4 sherds) and handmade ware (1 sherd) were present in the assemblage. The most interesting pottery form from this period was a pitcher with a squashed tubular spout, with a dark grey fabric and burnished vertical lines on the external surface.

Material from the 15th to 16th centuries comprised Humber and Ryedale wares, with Walmgate wares possibly originating from known potteries in the Walmgate area of York (Mainman and Jenner 2013, 1291).

2 METHODOLOGY

Visual analysis involved separating fabric and form groups by date and type. The numbers of sherds of each type of pottery are recorded in tabular form (see Table below). Decorative schemas, stamps and other significant features are also noted. Assemblages from each relevant period are outlined briefly under 'Discussion', below. Interesting Items and assemblages are also considered in the 'Discussion' section. Any additional research and/or scientific analysis is outlined under the heading of 'Recommendations for further work.'

SPOT Dating

SPOT dates are given for each context containing the most significant pottery fabric types. This is because pottery is often the most common and most datable find on urban excavations, and

can consequently help the excavation staff to interpret any given stratigraphic sequence. The method for calculating the SPOT date at YAT is the latest date from the latest pottery type, although other archaeological organisations use different methods for calculating the SPOT date; including using the latest date from the earliest date range and the earliest date from the latest date range.

Date Range

Calculation of the date range at YAT is the earliest date from the earliest pottery type and the latest date from the latest pottery type. When there are two very distinct date ranges, these will be included in the text, e.g. Roman and medieval. Sherds that can be identified as intrusive or residual will be noted (Barclay, *et al* 2016, Appendix 1).

3 DISCUSSION

The majority of the pottery is Roman and medieval, specifically Splashed wares, and this is considered in more detail here. Pottery types primarily consist of domestic wares, with a small amount of possible kiln-related material and possible industrial types. One interesting aspect of the pottery assemblage is a large collection of Splashed ware wasters and seconds recovered from a single context (C3052).

Roman

Ebor wares were the predominant fabric type in this assemblage, followed by Grey wares, including burnished and rusticated. Other ware types include Black Burnished, Colour Coated, White wares, Crambeck wares, Calcite-gritted and Samian.

Ebor wares – 1st/ 2nd century

Ebor wares were primarily in currency from 71-225 AD, and were initially plain, oxidised wares, in form styles such as legionary-style jars and bowls, and ring-necked flagons. These wares were increasingly covered with a white or red slip during the 2nd century (Monaghan 1997, 869), and in forms such as hemispherical and lug-handled bowls, and everted rim flagons. Slipped wares are thought to reduce in quantity substantially by 200 AD (*ibid*, 876-7), due to the switch to African forms, such as 'African' style bowls.

A substantial number of vessels within the Guildhall assemblage had a sandy orange coloured fabric, occasionally with a reduced core. These wares are almost certainly produced at kilns located near York, including those excavated at Apple Tree Farm (Lawton 1992/3), or earlier forms from kilns in the Aldwark area (Monaghan 1997, 869). Many of the Ebor sherds were painted with a white or red slip, and a small number had evidence of sooting on the external surface. Sooting was also apparent on the break edge of a small number of sherds, indicating that they had been burnt after breaking. Forms included; a cup-mouthed flagon, Mortaria, ring-necked flagons, jars, a lug-handled bowl, a flanged bowl, a Tazze, and a cup. Other interesting sherds included a handle decorated along its side with a swirl pattern, and a possible industrial vessel, with a hole pushed through its base.

Samian – 1st/ 2nd century

Samian wares can be dated to the 1st or 2nd centuries but these items are thought to be curated, due to their attractive appearance, so unless isolated, or amongst finds of a similar date, they can also be misleading.

Samian vessels form a smaller proportion of the pottery wares than Grey and Ebor wares (see Table 2), though like these fabrics, sherds ranged in size from small to large. Forms were predominantly bowls or cups, with an even amount of plain and decorated sherds. All known forms were identified as Dragendorff, numbers 36, 37 and 30 – which are decorated bowls, and number 27 – a plain cup. A small number of stamps were also noted.

Grey wares – 1st-4th century

The date range of Grey wares spans from the 1st to the late 4th century and therefore it is difficult to date them with accuracy. However, the presence of rusticated decoration on some of the sherds gives a spot date of 71-120 AD, as well as form types including legionary-type jars, carinated bowls, and ring-necked flagons. Later forms dating to the second century include post-legionary style carinated bowls, cooking pots, pie and 'dog' dishes and grooved dishes. These styles of dishes continued into the 3rd century, and were joined by butt-shaped, Dales, indented, and lid-seated jars. Grey burnished bowls and narrow necked jars were also present in the 3rd century.

A large proportion of the material found during the excavations were from Grey ware jars which were sometimes partly burnished and decorated with burnished lattice patterns or rusticated decoration. Other forms recovered included a bowl, flagon and a Mortaria.

Colour Coated wares – 2nd century

Colour Coated wares span the 2nd and 3rd centuries, with early forms comprising of cornice rimmed and bag-beakers (160-200 AD). In the 3rd century forms included indented and globular beakers, as well as pentice-moulded beakers and flagons, which continued in circulation into the 4th century.

Most of the colour coated sherds found during excavations had a pale fabric and dark grey slip on their external surfaces. Some have an orange coloured slip on their internal surfaces, whilst a small number had mica dusting on the surface. The sherds were all small with either roughcast decoration or an embossed scroll design.

Black Burnished ware – 2nd-4th century

Black Burnished wares are divided into BB1 and BB2; BB1 was earlier in date, exported to the north from around 120 AD. As the 2nd century progressed, these exports were gradually joined by local BB2 wares, which were local and regional copies of the BB1 forms. Black Burnished wares become increasingly rare from around 280-360 AD. Early forms of Black Burnished ware include, lattice-decorated cooking pots with upright rim; pie dishes with a flaring rim and conical profile; handmade 'dog' dishes with curved walls, and grooved dishes. Later black burnished wares are dated (3rd century onwards) by the lattice decoration on cooking jars; the angle of the lattice diamond increased to a 90-degree angle in the early 3rd century, becoming obtuse as the century progressed. In addition, bowls and dishes were formed with flanged rims.

A moderate amount of Black Burnished wares was recovered from the excavations (see Table 2), mainly small in size, though a small number of joining sherds were present in the assemblage.

The forms were mainly 'pie' or 'dog' dishes with lattice decoration, though a small number of jar sherds were also present.

White wares – 2nd / mid-4th century

White wares are noted by Monaghan as being most common during the 2nd century in York (ibid, 885), though never in quantity, yet Crambeck wares are described as 4th century types. As they occur in small sizes and are often abraded, they may also be intrusive, or indicative of later activity within earlier contexts. The Crambeck industry is thought to have commenced from around 280 AD, and by the mid- 4th century was York's main supplier of bowls and dishes (Monaghan 1997, 904), as well as plain Mortaria. Crambeck parchment and painted wares were introduced in the late 4th century, the most common forms were bowls, with some platters.

A few fine White and possible Parchment Type ware sherds were present in the Guildhall assemblage, these may have been made at the Crambeck kilns, near Malton, though white fabrics were also being made at a number of production sites in England. The majority of forms in this fabric were ring necked flagons, though a sherd from a Mancetter-Harthill Mortaria was also recovered.

Calcite-gritted wares – late 3rd / 5th century

In the late 4th – early 5th centuries Crambeck wares were overtaken in popularity by local Calcite-gritted wares. The expansion of distribution of the Calcite-gritted wares started in 280 AD, and had a distinct form of jar, the Huntcliff and proto-Huntcliff jars. A small number of Huntcliff jars and one proto-Huntcliff jar was present in the Guildhall assemblage.

Medieval

Splashed wares were the predominant fabric type in this assemblage from the medieval period, with other main fabrics including, Gritty wares; finely gritted and moderately gritted oxidised wares (FOX and MOX); York glazed wares; Brandsby wares, and Yorkshire Red wares. Later fabric types include, Humber wares, Ryedale/Earthenware's and Cistercian wares.

Splashed Wares – late 11th / mid-13th century

The largest proportion of pottery from the site were Splashed wares; with the majority of those originating from a single context (C3052). Most of the wares were finely gritted and spouted pitchers, in various sizes ranging from small to large, and often had joining sherds within the same context. Splashed wares are the most difficult to characterise as there is a great deal of variety and overlapping of forms and fabrics. Three main types of Splashed ware were present in York; oxidised, reduced and white wares and date from the late 11th -13th century (Mainman and Jenner 2013, 1185). The vast majority of Splashed wares from the Guildhall assemblage were an oxidised fabric, with a small amount of white and reduced, which could have been due to over-firing.

The pottery from context 3052 was unabraded, with fresh breaks, and therefore was likely to be a primary deposit. Evidence of glaze over edges, overfiring, glaze slag and a fusing of two vessels show that they were also wasters from a kiln. It is possible that the Splashed wares from this context were once used as ballast from a ship, however possible kiln material has been found on the site, and over-fired sherds have also been found in other contexts. Therefore, it is possibly more likely that the wasters were a dump deposit from a nearby undiscovered kiln.

Two candlesticks were recovered from two contexts (C3050 and C3052), as they were similar in fabric and form they were probably contemporaneous.

Gritty wares – late 11th/ mid- 13th century

Gritty wares were in currency during the same period as Splashed wares (ibid, 1178-79), and were the main cooking vessel fabric at this time. Similarly, to the Splashed wares, Gritty wares vary considerably in fabric, both in colour and size and quantity of grits. Typical forms included shouldered and rounded jars.

York Glazed Ware – mid- 12th / mid- 13th century

From the mid-12th to mid-13th century York Glazed wares appeared in York, and were produced from pale or white-firing clays (ibid, 1203). The assemblage of these wares is dominated by jugs, with a distinct straight-sided neck and thickened, flat topped or collared rim. Pouring was achieved through either tubular spouts in the early periods or pinched pouring lips in later periods.

York Glazed ware was the second dominating pottery type of this period (Table 3), though the sherd size was predominantly small and abraded compared to the Splashed wares. Any large surviving sherds of this type were tubular spouts or rod handles, though a small sherd of decorated jug body was also recovered, with a vertical comb and dot decoration.

Brandsby-Type – mid- 13th / mid- 14th century

The ceramics of the mid-13th to mid-14th centuries were dominated by Brandsby-type wares, which succeeded, with some overlapping, the York Glazed wares. Due to this overlapping, vessels produced in the early years of Brandsby –type production are difficult to distinguish from York Glazed wares (ibid, 1230).

Like the York Glazed wares there was a small to moderate amount of Brandsby-type pottery types in the Guildhall assemblage, and most of them were small sherds. Again, similarly to the York Glazed wares, the rod handles were the sherds that survived most intact, with a small number of joining sherds.

Beverley-type – mid- 13th / mid-14th century

A moderate number (see Table 3) of finely to moderately gritted, oxidised wares both unglazed and glazed were attributed to Beverley-type wares in this assemblage. Most of the sherds were small to medium body and base sherds, and therefore the forms were undetermined, though likely to be jars and pitchers.

Other Material

Other notable sherds from the assemblage include a Yorkshire Red ware jug with rilled neck and green glaze dating to the mid-13th-mid- 14th century; a Walmgate jug handle dating to the mid-14th to late 15th century; and a possible Anglo-Scandinavian/Local late to post-Roman pitcher with squashed tubular spout and burnished vertical line decoration. Potential kiln material was also recovered from contexts C3102 and C3140.

In conclusion, the wares from excavations at the Guildhall are evidence of a domestic settlement from the Roman to the medieval period. Pieces such as the two Splashed ware candlesticks show evidence of wealth, and evidence of kiln material and wasters, particularly in context

C3052, indicate the presence of a possible nearby kiln, producing Splashed wares in the 12th to early 13th century.

4 RECOMMENDATIONS FOR FURTHER WORK

This work should incorporate further examination of the Splashed wares within this assemblage, to record the forms and fabrics fully, as well as re-joining sherds to get as full forms as possible. Any complete or near complete vessels should be drawn.

The two candlesticks should be photographed and along with the other Splashed wares shown to other specialists to determine whether they are a local product.

Thin sections could be taken of the fabrics to catalogue and analyse the fabric makeup.

A short article for the MPRG newsletter should be produced on the Splashed ware candlesticks and spouted pitchers.

The possible Anglo-Scandinavian/Local ware pitcher should be compared with other similar wares to determine its source.

A Roman pottery specialist should analyse the Roman pottery in greater detail, to confirm this quick assessment.

Where possible near and complete pottery vessels should be reconstructed, drawn and photographed.

The assemblage should be compared with other assemblages from nearby sites, particularly water front sites along Coney Street.

Table 3 Pottery types

Context	Find	Quantity	Dating	Details
3000	BF202	7	20th century	1 York Glazed ware, light copper green and yellow glaze, body sherd, medium 1 White ware mortaria, rim sherd, small sherd 2 Cistercian, one rim, small sherds 1 amphora, medium sherd 1 Grey Burnished ware, sandy buff fabric, small body sherd 1 20th century plate rim, white hard fabric, painted stripe and heart decoration, clear glaze

3001	BF20 1	16	late 16th/17th century	<p>4 finely gritted oxidised with reduced core Splashed ware, joining jug rim sherds, green brown glaze, scarring from handle on one sherd, medium sherds</p> <p>2 Ebor ware, small body sherds</p> <p>1 scrap Samian rim</p> <p>1 Samian bowl rim, medium sherd</p> <p>1 Ryedale/red Earthenware body sherd with remains of handle base, thumb impressed, internal green glaze, medium sherd</p> <p>1 Crambeck ware base, burnished external, medium sherd</p> <p>2 York Glazed ware body sherds, one yellow green glaze, one green, small sherds</p> <p>1 York Glazed ware tubular spout, embossed strips and dots decoration, light green glaze, medium sherd</p> <p>1 Ryedale/late Humber base, reduced fabric with white external margin, green external glaze, small sherd</p> <p>1 Beverley type base, very abraded and pocked, slightly sagging base, unglazed, large sherd</p> <p>1 Brandsby ware base, oxidised external, light grey internal with buff internal surface, specks of green glaze on underside of base, medium sherd</p>
3007	BF25	3	17th century	<p>3 Frechen stoneware</p> <p>Small sherds</p>
3011	BF26	2	Late 14th/early 15th century	<p>1 Hambleton</p> <p>1 Humber</p> <p>Small sherds</p>
3013	BF27	4	Late 12th/early 13th century	<p>1 Roman Calcite Gritted</p> <p>1 Roman Grey</p> <p>1 Splashed</p> <p>1 Early York Glazed</p> <p>Small sherds</p>
3019	BF28	1	12th century	<p>1 coarse red ware</p> <p>Small abraded sherd</p>
3020	BF29	1	13th- 15th century	<p>1 scrap reduced green glaze</p>

3023	BF20 0	5	17th century	<p>1 Gritty ware, small</p> <p>1 finely gritted, oxidised Splashed ware, small body sherd</p> <p>1 oxidised Ryedale ware, unglazed body sherd, small</p> <p>2 finely gritted, open oxidised fabric with reduced core, white/buff external surface, one speck of brown glaze on smaller sherd, small sherds, CBM?</p>
3025	BF19 9	8	late 16th/17th century	<p>1 Cistercian, small body sherd</p> <p>1 Cistercian, decorated design of straight vertical lines, with pellet at one end, similar found at Kirstall Abbey (ref. Spavold 2019 unpublished), small body sherd</p> <p>1 Brandsby type rim with green glaze, abraded</p> <p>1 late Humber ware, reduced fabric with white margin under green glaze on external surface, small body sherd</p> <p>1 very abraded, moderately gritted, oxidised ware, small</p> <p>1 amphora, oxidised and buff fabric, with oxidised internal and buff external surfaces, medium body sherd</p> <p>1 Ebor rim, abraded, small sherd</p> <p>1 oxidised Ryedale base, with brown glaze on underside, very abraded</p>

3026	BF19 8	192	12th century- mid 14th century	<p>1 Colour Coated ware, with roughcast decoration, small sherd</p> <p>1 Roman White ware, small body sherd</p> <p>3 Ebor ware, scraps to small</p> <p>1 Ebor ware with buff surfaces, small</p> <p>1 Ebor with reduced core, narrow lattice decoration, small body sherd</p> <p>2 Ebor shallow dish/ pie dish rim sherd, one burnt, small</p> <p>1 finely gritted, oxidised Splashed ware, base, slightly abraded, medium sherd</p> <p>3 finely gritted, oxidised Splashed ware, small to medium body sherds</p> <p>2 moderately gritted oxidised ware, buff external surface with sooting, one with burnt edges after broken, small</p> <p>1 moderately gritted oxidised fabric with reduced core, small body sherd, sooting on external surface</p> <p>2 York ware, body sherds, sooting on external surfaces, small to medium sherds</p> <p>3 oxidised, hard fabric with slip on external surface, small body sherds</p> <p>1 finely gritted oxidised fabric, strap handle with central groove, unglazed, small</p> <p>1 moderately gritted oxidised fabric strap handle with two grooves on one side, unglazed, small</p> <p>4 coarsely gritted oxidised fabric, body sherds, small, sooting</p> <p>1 moderately gritted oxidised fabric with reduced internal, base sherd, small</p> <p>1 abraded moderately oxidised fabric, small body sherd</p> <p>1 moderately gritted, oxidised with reduced core, hard fabric, small body sherd</p> <p>1 reduced Ebor with white slip, small body sherd</p> <p>1 finely gritted Grey ware with buff internal, burnt, medium body sherd</p> <p>1 Roman Grey ware scrap with lattice decoration, brown fabric</p> <p>1 large chip Ebor ware base</p> <p>4 finely gritted, oxidised Splashed ware, jug base, glaze on underside of base, medium sherds</p> <p>1 finely gritted oxidised Splashed ware body sherd, medium</p> <p>6 Ebor, body sherds, small</p> <p>2 Ebor ware, red slipped, small body sherds</p> <p>1 Ebor foot ring base, medium</p> <p>1 moderately gritted, oxidised ware, small body sherds</p>
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				<p>11 Ebor, white slipped, small body sherds</p> <p>1 Ebor ware, white slipped, base with foot ring, small</p> <p>1 Ebor ware, white slipped strap handle with off centre groove, small</p> <p>1 Ebor ware, white slipped strap handle, with two central grooves, small</p> <p>1 Ebor ware, white slipped, flagon rim, slipped all surfaces, small</p> <p>1 Ebor ware, bowl/dish rim, small</p> <p>27 Roman Grey ware, body sherds, small to medium</p> <p>3 BB1 ware, dish base, swirly pattern on external underside of base, large and 2 small sherds</p> <p>12 Grey ware with narrow lattice decoration (pre 200 AD), small body sherds</p> <p>1 Grey ware with rusticated decoration, body sherd, small</p> <p>1 Roman Grey ware with horizontal banding decoration, medium</p> <p>1 abraded scrap of Grey ware</p> <p>1 hard, fine textured dark red fabric with slightly shiny/glossy dark grey margins (import?), scrap</p> <p>1 mica dusted Colour Coated Grey ware with buff core, small body sherd</p> <p>1 Roman handmade Grey ware, small</p> <p>1 scrap York ware base, burnt</p> <p>1 Grey ware jar rim, lattice decoration on shoulder, medium sherd</p> <p>1 Grey ware jar rim with rilled decoration on shoulder, flat topped rim, medium sherd</p> <p>1 burnished Grey ware jar rim, sandy red core, flat topped, lattice decoration on shoulder, small</p> <p>1 Grey ware jar lid seated rim, small</p> <p>2 burnished Grey ware jar rim, red sandy core, flat topped rim, lattice decoration on shoulder, joining sherds, small to medium</p> <p>4 Grey ware jar rims, cursive design, 2 had some burnishing on external, small</p> <p>1 burnished Grey ware base with foot ring, small</p> <p>1 Grey ware base with foot ring, small</p> <p>3 burnished Grey ware bases, small to medium</p> <p>2 White ware flagon with ring neck, rim and neck sherds, small to medium</p> <p>8 finely gritted, oxidised Splashed ware, body sherds, slightly ribbed, strap handle scarring on one of the sherds, evidence of glaze on edge of 2 of the sherds (wasters/seconds?) green brown glaze, small to medium</p>
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				<p>sherds</p> <p>1 finely gritted, oxidised Splashed ware, collared rim, roughly made, green brown glaze, kiln marks, medium sherd</p> <p>2 amphora, oxidised/buff surfaces and reduced core, medium sherds</p> <p>2 BB1 jar rim, everted, joining sherd, small</p> <p>1 abraded BB1 base, small</p> <p>1 BB1 pie dish rim, small</p> <p>1 BB2 small jar rolled rim, small</p> <p>1 BB1 body sherd with vertical lines decoration, small</p> <p>1 BB2 with red core, lattice decoration, small</p> <p>1 BB1 body sherd, small</p> <p>17 Samian body sherds, one burnt, small to medium</p> <p>13 Samian bowl/cup rims, small</p> <p>3 Samian bases with foot ring, small to medium</p> <p>9 Samian, decorated body sherds, small</p> <p>1 Samian base stamped 'FVSC', small</p>
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3027	BF19 7	35	13th century	<p>7 York Glazed ware, body sherds, small</p> <p>2 reduced green glaze, body sherds, small</p> <p>3 early York Glazed ware, pink fabric, yellow green glaze, small joining body sherds</p> <p>1 Roman Colour Coated rolled rim</p> <p>2 Roman Grey ware body sherds, small</p> <p>1 Roman Grey ware everted rim, small</p> <p>1 BB1 body sherd, small</p> <p>2 Roman Grey ware body sherds, lattice decoration, one abraded, small</p> <p>1 Samian crenelated bowl with rolled rim, large sherd</p> <p>1 Samian scrap</p> <p>5 finely gritted, oxidised Splashed ware with reduced core, light olive green glaze on external</p> <p>1 finely gritted, oxidised Splashed ware base, with green brown on base underside, small</p> <p>1 finely gritted, oxidised Splashed ware, flat topped rim, with light green speck on top, small</p> <p>1 finely gritted, oxidised Splashed ware, body sherd with light green glaze, over firing around edges?, small</p> <p>1 finely gritted, oxidised fabric with iron inclusions, buff burnished external surface, small body sherd</p> <p>1 moderately gritted, oxidised fabric, sooting on external surface, small body sherd</p> <p>1 Gritty ware, oxidised with reduced core, small body sherd</p> <p>1 finely gritted, oxidised with buff, burnished external surface, straight-sided base, small</p> <p>1 moderately gritted, oxidised with reduced internal, scrap</p> <p>1 Gritty ware rim, small</p>
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3029	BF19 6	23	mid 13th/mid -14th century	<p>1 finely gritted, oxidised with reduced core Splashed ware, green brown glaze, medium body sherd</p> <p>1 Colour Coated White fine ware with roughcast decoration, small body sherd</p> <p>1 Ebor body sherd, small</p> <p>1 Ebor bowl rim, with grooved decoration round rim and rouletting, medium sherd</p> <p>1 reduced green glaze ware, small body sherd</p> <p>1 coarsely gritted Roman Grey ware with red slip, small body sherd</p> <p>2 York Glazed ware, white, light grey fabric with light green glaze, small to medium sherds</p> <p>2 early? York Glazed ware, pink and white fabric, external buff, internal glaze in band, small to medium sherd</p> <p>2 Brandsby type body sherds, green glaze, applied strip decoration, lightly reduced core, small</p> <p>1 finely gritted, hard reduced fabric with oxidised internal, green brown glaze, small body sherd</p> <p>1 large moderately gritted, oxidised open fabric strap handle (Yorkshire Red ware?) with embossed strip on one side, part of vessel is attached on internal side of handle, possibly indicating large two handled vessel?</p> <p>1 Roman Calcite-gritted base, small</p> <p>1 burnished Grey ware, everted rim jar, medium rim sherd, early 2nd century</p> <p>1 finely gritted, oxidised Splashed ware, rim of jar, green brown glaze, small</p> <p>2 Grey ware body sherds, small</p> <p>1 Brandsby body sherd, light green glaze, reduced grey internal and white margin, small</p> <p>1 burnished Grey ware body sherd, abraded, horizontal line decoration, small</p> <p>1 Colour Coated, reduced fabric and buff coloured coat, small part of base included, small</p> <p>1 hard, reduced dark grey fabric with oxidised internal surface, fabric is finely gritted, unknown form, small base, which then flares out and down - a form of platter?</p> <p>Roman</p>
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3031	BF19 5	14	15th/16th century	<p>1 reduced green glaze body sherd with impressed vertical strip with thumb imprints, medium sherd</p> <p>2 Cistercian ware body sherds, medium</p> <p>1 moderately gritted, oxidised ware, squared rim, jug, medium</p> <p>1 Brandsby ware, reduced internal, white external, green glaze, small body sherd</p> <p>1 Crambeck parchment ware, small body sherd</p> <p>1 York Glazed ware, everted rim, light green glaze, small</p> <p>1 finely gritted, oxidised with reduced internal and buff surfaces, base, small</p> <p>1 Samian base with foot ring, abraded, rouletted decoration on internal base, medium sherd</p> <p>1 Samian rolled rim, small</p> <p>4 Samian body sherds, small</p>
3032	BF19 4	23	15th/16th century	<p>1 Samian rolled rim, small</p> <p>1 Stamford ware, scrap</p> <p>1 Cistercian collared rim, medium</p> <p>1 Cistercian cup base, small</p> <p>2 reduced green glaze body sherd, olive green glaze, one oxidised internal surface, small</p> <p>1 rusticated Grey ware body sherd, small</p> <p>2 abraded Grey ware rims, very small</p> <p>1 York ware, body sherd, small</p> <p>2 Ebor body sherd, small</p> <p>1 Ebor rolled rim, small</p> <p>2 very abraded oxidised sandy/finely gritted fabrics, small</p> <p>2 moderately gritted, oxidised with reduced core, small body sherd</p> <p>2 burnished Grey ware body sherds, small</p> <p>1 Roman Grey ware with vertical line decoration, small body sherd</p> <p>1 Roman white gritty fabric with moderate/large iron inclusions, red and grey slip on internal surface and top of rim, medium</p> <p>1 Calcite-gritted, Huntcliff type jar with hooked rim and lid-seating, late 4th century, medium</p> <p>1 Calcite-gritted jar body sherd, medium</p>
3033	BF19 3	4	mid 13th/mid-14th century	<p>1 burnished Grey ware jar rim - cavetto rim, obtuse lattice decoration (post 200 AD)</p> <p>1 Brandsby type body sherd, small</p> <p>1 moderately gritted oxidised fabric with reduced core,</p>

				<p>squared rim of jar, medium</p> <p>1 York ware base, burnt, small</p>
3037	BF19 2	64	12th-mid 14th century	<p>3 Samian body sherds, small</p> <p>2 Samian rolled rims, small</p> <p>1 Samian rolled rim, external decoration, small</p> <p>4 Amphora, abraded, buff fabric, large sherds</p> <p>1 Ebor Mortaria, internal abrasion, base sherd, large</p> <p>1 Ebor with red slip, rim of platter, medium sherd</p> <p>1 Roman Grey ware bowl with burnished buff surfaces, double incised lines just under rim, medium</p> <p>1 Ebor body sherd, small</p> <p>1 Ebor with buff surfaces, sooting on external surface, small</p> <p>1 hard fired moderately gritty, reduced with dark red surfaces, moderate calcite inclusions, small body sherd</p> <p>1 coarsely gritted, oxidised fabric, small body sherd</p> <p>1 finely gritted, oxidised fabric, small to medium body sherds</p> <p>1 Gritty ware, oxidised with reduced core, abraded, small</p> <p>1 finely gritted, oxidised fabric base, sooting on external, buff external surface, small</p> <p>3 Ebor ware, white slipped, body sherds, small</p> <p>1 fine White ware, burnished external surface, small body sherd</p> <p>2 Ebor ware body sherds, small</p> <p>1 Ebor, white slipped, cup-mouthed flagon rim, medium</p> <p>1 Ebor, white slipped strap handle, double grooved, medium</p> <p>1 Ebor, white slipped small strap handle, one central groove, medium</p> <p>2 Ebor, white slipped, probable flagon, base with foot ring, large sherd, abraded</p> <p>8 Grey ware body sherds, small, abraded</p> <p>3 burnished Grey ware body sherds, small, abraded</p> <p>1 Grey ware strap handle with central groove, abraded, small</p> <p>1 burnished Grey ware body sherd with double incised horizontal lines, medium</p> <p>3 Grey ware with latticed decoration, body sherds, small</p> <p>2 Roman Grey ware jar base, joining, small</p> <p>1 Colour Coated oxidised fabric, roughcast decoration, small body sherd</p> <p>1 burnished Grey ware, dark red fabric with dark grey core</p>

				<p>and surfaces, hard fired, base, medium</p> <p>1 burnished Grey ware base, small</p> <p>1 Grey ware jar rim, calvetto rim, abraded, medium</p> <p>4 burnished Grey ware jar rims, everted, small</p> <p>1 fine Grey ware rim, everted, small</p> <p>1 CG Colour Coated, rolled rim, small, metallic looking colour coat</p> <p>1 moderately gritted, reduced fabric Splashed ware, jar simple rolled rim, small</p> <p>4 Samian moulded bowl including one rim</p>
3038	BF19 1	10	12th to 15th century	<p>1 Raeren type German stoneware mug base small sherd</p> <p>4 Brandsby jug including three thumbled base sherds and a rod handle mainly large sherds</p> <p>1 Splashed coarsely gritted reduced ware very small</p> <p>1 Splashed finely gritted oxidised small sherd</p> <p>1 Late Roman Calcite-gritted residual coarse ware small abraded</p> <p>1 Humber unglazed medium sherd</p> <p>1 Yorkshire red ware jug with rilled neck rod handle scar and dull abraded green glaze</p>
3043	BF28 9	8	2nd/3rd century	<p>3 Roman Colour coated beaker small</p> <p>1 Roman Grey burnished medium</p> <p>1 Roman White ware</p> <p>1 Roman coarse ware with white surfaces and lightly oxidised core small</p> <p>1 Roman lightly oxidised coarse ware</p>

				1 Roman coarse ware jar with lightly oxidised surfaces and lightly reduced core, medium
3043	BF29 0	12	16th century	2 Cistercian drinking vessel including one rim small 6 Buff/lightly oxidised yellow glazed ware horizontal handled bowl *profile large sherds join sooted under base and over broken rim edge. Late yellow glazed or early Ryedale 1 late Brandsby jug with applied vertical strip with small finger impressions lightly sooted area inside 1 coarse oxidised jar rim large 1 coarse oxidised jar base large 1 Ryedale type red ware rim oxidised throughout with splashes of glaze small
3045	BF29 1	8	12th century	3 Splashed ware pitcher including collared rim small 1 Roman burnished small 1 Roman fine Grey ware 1 Roman Grey burnished small 2 Splashed coarsely gritted oxidised small abraded
3047	BF19 0	6	late 11th-mid 12th century	1 Splashed white moderately gritted ware lower wall with soot partially over lower broken edge medium 1 Splashed lightly oxidised moderately gritted ware small 1 Splashed moderately gritted lightly reduced ware with oxidised external surface and no glaze 2 Splashed hard oxidised jar including rim with lightly reduced core large and small 1 reduced over fired base

3048	BF18 9	75	12th/13th century	<p>9 Rusticated Grey ware</p> <p>1 late Humber with mottled stoneware type glaze small tile</p> <p>stone</p> <p>3 Black Burnished bowl with thick white margins and reduced core including two everted rim large</p> <p>2 Grey ware jar rim and base small and medium</p> <p>2 Grey burnished medium</p> <p>1 overfired Grey ware rim waster small</p> <p>2 Calcite gritted small and medium including sherd with horizontal grooves</p> <p>1 overfired medieval jug base large</p> <p>2 Black Burnished with buff fabric including jar base medium and large</p> <p>4 Grey ware body sherds small</p> <p>1 self-slipped Grey ware small jar rim with red brown surfaces</p> <p>11 Grey ware flagon rim small</p> <p>1 Grey ware jar base medium</p> <p>7 Ebor flagon and jar large</p> <p>1 Colour coated small</p> <p>1 Samian rim small</p> <p>1 Colour Coated beaker rim with brown slip medium</p> <p>7 Splashed finely gritted oxidised pitcher including collared rim and base small to large</p> <p>8 Splashed moderately gritted oxidised including abraded thick strap handle, small to medium</p> <p>3 Ebor type small</p> <p>1 Splashed fabric base unglazed small</p> <p>4 Roman hard buff ware including pedestal base small</p> <p>1 Stamford yellow glazed small</p> <p>1 miscellaneous Roman ware small</p>
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3050	BF18 8	48	13th century	<p>1 Ebor, coarse sandy with red slip, blunt rim of bowl, small sherd</p> <p>1 Ebor, coarse sandy with red slip, small body sherd</p> <p>1 Colour Coated White ware, base, small sherd</p> <p>1 Ebor lug handle from lug handled bowl?, medium sherd</p> <p>4 Samian plain body sherds, one carinated, small sherds</p> <p>1 Samian rim, rolled, small</p> <p>1 Colour Coated, small body sherd</p> <p>2 Ebor, white slipped, small body sherds</p> <p>1 Roman white slipped oxidised, fine sandy fabric, small body sherd</p> <p>5 Roman Grey ware, small body sherds</p> <p>1 Roman Grey ware, small, burnt, body sherd</p> <p>2 burnished Grey ware, small body sherds</p> <p>1 Roman Grey ware base, small</p> <p>1 Roman burnished Grey ware rolled rim, small</p> <p>1 Roman Grey ware with lattice decoration, small body sherd</p> <p>4 Gritty ware small body sherds</p> <p>1 Gritty ware jar rim, small</p> <p>5 finely gritted, oxidised Splashed ware, small body sherds</p> <p>1 Brandsby ware, green glaze, white margin, small body sherd</p> <p>1 Mancetter-Harthill mortaria, form MR1, rim sherd, medium</p> <p>1 Ebor simple rolled rim, small</p> <p>1 oxidised with reduced core cup handle, medium</p> <p>1 oxidised, self-slipped, medium body sherd</p> <p>2 Calcite-gritted ware, small body sherds</p> <p>1 Calcite-gritted jar with lattice decoration, small body sherd</p> <p>1 finely gritted, oxidised Splashed ware candlestick, large sherd</p> <p>1 Grey ware fabric pitcher with squashed tubular spout and abraded burnishing on external surface- Anglo-scan in date?</p> <p>3 Amphora, pink fabric and creamy white surface, small to large sherds</p>
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3052	BF18 7	847	12th century	<p>616 Splashed ware pitchers with fine to moderately gritted oxidised fabrics, body sherds</p> <p>71 Splashed ware pitchers with fine to moderately gritted oxidised fabrics, bases</p> <p>62 Splashed ware pitchers with fine to moderately gritted oxidised fabrics, rims, including spouts</p> <p>25 Splashed ware pitchers with fine to moderately gritted oxidised fabrics, handles</p> <p>8 Gritty ware jar rim, squared, with sooting, medium to small</p> <p>18 Gritty ware body sherds, small to large</p> <p>7 Gritty ware base sherds, small to large</p> <p>2 Ebor, coarse sandy, small body sherds</p> <p>1 Ebor ring necked flagon, white slipped, medium</p> <p>2 Ebor white slipped body sherds, small to medium</p> <p>3 medieval coarse ware, body sherd, small to medium</p> <p>2 Splashed ware pitchers with fine to moderately gritted oxidised fabric, fused in kiln, small</p> <p>4 Splashed ware pitchers with fine to moderately gritted oxidised fabrics, with dark grey slip on external surface, medium to large body and base sherds</p> <p>1 Roman oxidised with reduced internal fabric, medium body sherd</p> <p>1 Ebor base, foot ring, small</p> <p>1 BB1 ware, small body sherd</p> <p>1 finely gritted splash glaze candlestick with reduced core, base</p> <p>1 Brandsby? body sherd, small, light green glaze with light grey core</p> <p>1 scrap York Glazed ware rim</p> <p>1 York Glazed ware with yellow glaze, small body sherd</p> <p>1 finely gritted oxidised splash ware with scratch/tool marks on internal surface, medium body sherd</p> <p>3 burnished Grey ware body sherds, small</p> <p>1 burnished Grey ware base sherd, small</p> <p>1 Roman Grey ware rim, everted, small</p> <p>1 burnished Grey ware jar rim, small</p> <p>2 Roman Grey ware body sherds, small</p> <p>1 Roman Grey ware strap handle with central groove, small</p> <p>1 Roman Grey ware with lattice pattern, small body sherd</p> <p>1 Samian, carinated, small body sherd</p> <p>4 finely gritted, reduced Splashed ware, body sherds, small to medium</p> <p>1 Ebor, white slipped, base with foot ring, small</p>
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				<p>1 Mortaria in a Lincolnshire fabric, form ME - everted or hooked flange, large sherd</p> <p>1 Ebor Mortaria, form ME, large sherd</p>
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3053	BF18 6	73	late 2nd- late 3rd century	<p>1 Grey ware with rusticated decoration, body sherd, small</p> <p>3 Ebor roughcast sherds, small</p> <p>1 Colour Coated scrap, oxidised fabric</p> <p>7 Ebor white slipped, body sherds small</p> <p>1 Ebor white slipped base, small</p> <p>1 Ebor white slipped strap handle with central groove, small</p> <p>7 Ebor body sherds with reduced internal surface, small</p> <p>1 Grey ware base, small</p> <p>1 Grey ware body sherd, small</p> <p>1 Grey ware body sherd with rouletted decoration and incised horizontal lines, medium</p> <p>1 Colour Coated, oxidised fabric, grey colour external, purple mica? dusted internal, scroll design, small sherd</p> <p>2 Grey ware with narrow lattice decoration, small body sherds</p> <p>1 Grey ware with obtuse lattice decoration, small</p> <p>1 BB2 rim, small</p> <p>2 burnished Grey ware with oxidised core, joining cavetto rims, small</p> <p>2 burnished Grey ware rim, small</p> <p>3 burnished Grey ware jar base, joining, small sherds</p> <p>1 BB1 bowl rim, small</p> <p>4 burnished Grey ware body sherds, small</p> <p>1 BB body sherd, small</p> <p>1 Ebor with reduced core, body sherd, small</p> <p>1 Ebor with reduced core, flanged bowl, small</p> <p>3 Ebor body sherds, one with incised horizontal lines, small</p> <p>1 Ebor base with foot ring, small</p> <p>10 Samian ware, body sherds, small and abraded</p> <p>3 Samian rolled rims, small</p> <p>2 Samian squared rims with rouletting decoration, small and abraded</p> <p>1 decorated Samian body sherd, abraded</p> <p>3 Samian bases, 2 with foot rings, medium sherds</p> <p>1 Ebor, red slipped, small body sherd</p> <p>1 Ebor base, abraded, reduced core, medium</p> <p>2 oxidised Gritty ware, joining body sherds, small</p> <p>2 misc. very abraded scraps</p>
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3055	BF18 5	40	13th- 15th century	<p>2 Colour Coated fine ware, white fabric, metallic colour coat, small body sherds, one with embossed decoration</p> <p>1 Ebor, abraded, small body sherd</p> <p>1 reduced green glaze rim, dish/platter, green brown, with high sheen glaze on all surfaces, small</p> <p>1 reduced green glaze rim sherd, green glaze on external surface, small, incised horizontal line decoration</p> <p>1 Calcite-gritted ware rim, small</p> <p>1 Brandsby ware body sherd, combed decoration, green glaze, small</p> <p>1 Splashed ware, finely gritted, oxidised, over fired green glaze, small body sherd</p> <p>1 finely gritted, oxidised Beverley Type?, rilled body sherd, one dot of glaze, medium sherd</p> <p>1 Splashed ware, finely gritted, oxidised with reduced core fabric, base, splash glaze on under base</p> <p>2 Splashed ware, finely gritted, oxidised with reduced core, abraded body sherds, small</p> <p>1 oxidised, finely gritted strap handle with 5 grooves, yellow green and green glaze, over fired?</p> <p>1 finely gritted, oxidised with reduced core, Splashed ware, collared rim with green brown glaze, medium</p> <p>1 coarsely gritted, reduced splashed ware, body sherd, small, dark green/brown glaze</p> <p>1 Splashed ware, finely gritted with reduced fabric, buff surfaces with grey core, small body sherd</p> <p>1 Roman Grey ware with lattice decoration, body sherd, medium</p> <p>1 Grey ware shallow pie dish with flaring rim, medium sherd</p> <p>1 burnished Grey ware rounded rim, small</p> <p>1 burnished Grey ware part base, small</p> <p>2 BB1 rims, small, rolled and plain</p> <p>1 BB1 body sherd, small</p> <p>1 moderately gritted oxidised Splashed ware, over fired glaze on internal and edges, small</p> <p>4 Gritty wares, body sherds, small to medium</p> <p>1 Samian rolled rim, small sherd</p> <p>1 Samian body sherd, small</p> <p>2 York Glazed ware rod handle with reduced core, 4 ridges, light copper glaze, joining sherds</p> <p>1 Brandsby type body sherd with lightly rouletted decoration, small</p> <p>1 early York Glazed ware platter rim, with very light green glaze on internal surface, small sherd</p>
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				<p>3 York ware body sherds, copper green glaze, small</p> <p>1 Humber type/lightly reduced green glaze ware medium body sherd</p> <p>1 sandy oxidised fabric, small body sherd</p> <p>1 finely gritted, reduced Splashed ware, small body sherd</p>
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3056	BF18 4	27	12th/early 13th century	<p>2 moderately gritted, oxidised, small body sherds</p> <p>1 finely gritted, oxidised with reduced core, buff surfaces, small body sherd</p> <p>1 moderately gritted, reduced Splashed ware, over fired glaze. small body sherd</p> <p>1 moderately gritted, oxidised, pink to buff fabric, sooting on external, medium body sherd</p> <p>1 moderately gritted, oxidised Splashed ware collared rim, green brown glaze, small</p> <p>2 finely gritted, oxidised, Splashed ware strap handles with wide central groove, thumb imprints at one end, green brown glaze, small to medium sherds</p> <p>1 finely gritted, reduced Splashed ware, bowl rim?, uneven internal surface - misfire, small sherd</p> <p>2 finely gritted, reduced Splashed ware, green glaze, small body sherds</p> <p>3 finely gritted, oxidised Splashed ware, grey, buff internal fabric, green brown glaze, evidence of sooting and burnt fabric on one of the sherds, small to medium body sherds</p> <p>1 Gritty ware rim scrap, green glaze</p> <p>1 finely gritted, oxidised Splashed ware, grey external margin, green brown glaze, medium body sherd</p> <p>1 Ebor, with reduced core, two incised horizontal lines, small body sherd</p> <p>1 Roman Grey ware body sherd, small</p> <p>2 burnished Grey ware base sherd, scrap to small</p> <p>1 finely gritted, oxidised rim, buff fabric, only slight curve at one end, so large vessel?, straight thick rim, medium sherd</p> <p>1 finely gritted, reduced rim, rough external surface, small</p> <p>1 finely gritted, reduced fabric, unknown form, misfire?</p> <p>1 finely gritted, reduced with buff surfaces base, jar, sooting on base underside, roughly made, thumb smears and tool marks on internal surface, large sherd</p> <p>2 finely gritted, oxidised Splashed ware base, small</p> <p>1 moderately gritted, oxidised base, medium sherd</p>
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3057	BF18 3	31	13th century- mid 14th century	<p>1 tile</p> <p>1 coarsely gritted, reduced Splashed ware jar base, brown glaze on external surface, small</p> <p>7 finely gritted, oxidised Splashed ware, green brown and brown glazes on external surface, one over-fired, small to medium sherds</p> <p>1 finely gritted, reduced Splashed ware, small body sherd</p> <p>1 Roman Grey ware strap handle, wide central groove, small</p> <p>1 Roman Grey ware base, very abraded on internal surface, small sherd</p> <p>1 Gritty ware, oxidised pink fabric, jar, sooting on external surface, small body sherd</p> <p>1 Samian, small body sherd</p> <p>1 burnished Grey ware rim sherd, simple rolled rim, small sherd</p> <p>1 Roman Grey ware, small body sherd</p> <p>1 burnished Grey ware with vertical line decoration, small body sherd</p> <p>2 York Glazed ware, small body sherds</p> <p>1 Ebor complete base, small sherd</p> <p>1 Ebor medium body sherd, smooth external surface, rilled internal surface</p> <p>1 finely gritted, oxidised Beverley type?, tubular spout, green brown glaze, medium sherd</p> <p>1 Roman brown sandy fabric from Lincolnshire? Lid seated rim of large vessel, rough and crusty internal surface, medium surface</p> <p>3 finely gritted, oxidised Beverley type?, with reduced core, base, one has rilled decoration, small to medium sherds</p> <p>1 Gritty ware small body sherd</p> <p>2 moderately gritted, oxidised Splashed ware, abraded small body sherds</p> <p>1 moderately gritted, white Splashed ware, jar base, sooting on external surface on sides and base, splash of green glaze on underside of base, medium sherd</p> <p>1 finely gritted, oxidised Splashed ware, small body sherd</p>
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3058	BF18 2	22	Mid- 12th/mid -13th century	<p>1 Samian, small body sherd</p> <p>2 burnished Grey ware, base, medium sherds</p> <p>1 burnished Grey ware, small body sherd</p> <p>1 coarsely gritted, reduced Splash ware rim, abraded, small</p> <p>1 oxidised, finely gritted thick rim, small</p> <p>1 coarsely gritted, oxidised Splashed ware with reduced core, base, green brown glaze on external, medium sherd</p> <p>1 finely gritted, oxidised Splashed ware, base, green brown glaze on external and underside, sooting/burning on both surfaces, cracked, medium sherd</p> <p>1 finely gritted, oxidised Splashed ware strap handle with central groove, medium sherd, over fired glaze?</p> <p>1 glazed tile corner?</p> <p>1 Gritty ware jar base, sooting on external surface, buff internal, small sherd</p> <p>2 finely to moderately gritted, oxidised Splashed ware rim sherds, everted, green brown and brown glaze, external and on rim, small to medium sherds</p> <p>1 finely gritted, oxidised Splashed ware, brown and grey fabric, burnt?, brown external glaze, medium sherd</p> <p>2 moderately gritted, oxidised platter/flanged dish rim, joining sherds, internal green glaze overlaying a white slip, small</p> <p>1 coarsely gritted, oxidised splash glaze, small body sherd</p> <p>1 York Glazed ware jug base, external green glaze, medium</p> <p>2 York Glazed ware small body sherds, green external glaze</p> <p>1 Torksey ware? small body sherd</p> <p>1 York White ware simple rolled rim, bowl/dish, green glaze internal and on rim, medium sherd</p>
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3060	BF18 1	17	Mid- 13th/mid -14th century	<p>2 hard white fabric, with light grey core, yellow brown glaze with combed horizontal line decoration and dots in brown, small body sherds</p> <p>1 finely gritted oxidised with green glaze, small body sherd</p> <p>1 Ebor, white slipped, small body sherd</p> <p>1 moderately gritted, white Splash ware, green glaze, small body sherd</p> <p>1 finely gritted, reduced Splash ware with oxidised internal surface, small body sherd</p> <p>1 York Glazed ware simple rim, light green glaze, small</p> <p>1 York Glazed ware, small body sherd</p> <p>4 Brandsby type, green glaze, two with white margins, one of which has combed horizontal lines, small body sherds</p> <p>1 Roman Grey ware, small body sherd</p> <p>1 finely gritted White ware with buff slip, scrap</p> <p>1 Gritty ware squared rim, jar, small</p> <p>1 finely gritted, oxidised Splashed ware, abraded, ribbed body sherd, medium</p> <p>1 Samian bowl rim, simple rim, abraded, small</p>
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3062	BF18 0	25	Mid- 15th/16 th century	<p>1 sandy oxidised fabric, Beverley type?, yellow green glaze on both surfaces white slip underneath, grouped bands of incised horizontal lines, medium simple rim sherd</p> <p>1 finely gritted, oxidised Splashed ware, reduced internal fabric, rare quartz inclusions, green brown glaze, small body sherds</p> <p>2 late Humber type, iron and quartz inclusions, small body sherds</p> <p>1 finely gritted, reduced base, with buff surfaces, and slip on external surface, iron inclusions, abraded medium sherd</p> <p>3 Brandsby type, green external glaze, 2 have rouletting decoration, one wavy combed decoration, white margins, small to medium sherds</p> <p>1 Roman Grey ware rim, everted, abraded, small</p> <p>1 Gritty ware small body sherd</p> <p>1 Shelly ware, buff surfaces, small body sherd</p> <p>1 moderately gritted, oxidised ware, bowl rim, burnishing and sooting on external surface, calcite inclusions, simple rolled rim, buff internal surface, small sherd</p> <p>1 moderately gritted, oxidised ware Splashed ware with dark grey internal fabric, medium body sherd</p> <p>1 Samian carinated body sherd, abraded, medium sherd</p> <p>1 Crambeck body sherd, abraded, small</p> <p>1 Roman Grey ware, pink and cream fabric, dark grey external surface</p> <p>1 mica dusted Grey ware, small body sherd</p> <p>2 Grey ware with lattice decoration, small body sherd</p> <p>1 finely gritted, oxidised ware with buff internal surface, dark grey internal fabric, base sherd, small</p> <p>1 hard, finely gritted, reduced Splashed ware, buff surfaces, brown glaze, over fired?, base sherd, medium</p> <p>1 finely gritted, oxidised, Splashed ware, base, reduced core, medium sherd</p> <p>1 York Glazed ware, vertical line decoration, green glaze external, large body sherd</p> <p>1 York Glazed ware, pink fabric with white margins, specks of yellow green glaze, small body sherd</p> <p>1 Stamford type ware, yellow green glaze, horizontal comb lines, small body sherd</p>
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3064	BF17 9	12	Mid- 13th/mid -14th century	<p>1 Gritty ware jar rim, medium</p> <p>1 BB ware body sherd with lattice decoration, small</p> <p>1 Ebor flagon? base with foot ring, large sherd</p> <p>4 Ebor body sherds, two with incised horizontal lines, small to medium sherds</p> <p>1 Crambeck parchment ware, body sherd, small</p> <p>1 Splashed ware, finely gritted, oxidised with collared rim, small sherd</p> <p>1 Splashed ware, finely gritted, oxidised with reduced core, small sherd</p> <p>1 Splashed ware moderately oxidised with light yellow brown glaze and incised wavy line, small body sherd</p> <p>1 Brandsby type rod handle, light yellow/buff fabric with reduced core</p>
3067	BF28 4	33	early 2nd-late 3rd century	<p>1 Ebor white slipped Mortaria, large sherd</p> <p>9 Grey ware joining sherds from flagon, small to medium sherds, buff interior</p> <p>1 Ebor white slipped strap handle with three grooves, medium sherd</p> <p>1 Ebor white slipped strap handle with two grooves, small sherd</p> <p>1 Ebor white slipped body sherd, small</p> <p>2 Colour Coated roughcast, small body sherds, joining, reduced fabric</p> <p>1 NVCC rim, small</p> <p>2 Grey ware body sherds, small</p> <p>1 burnished Grey ware, body sherd, medium</p> <p>1 Grey ware with 90 degree lattice decoration, small body sherd</p> <p>1 BB1 pie dish with narrow lattice decoration and flaring rim, large sherd</p> <p>2 Samian rim, small sherds</p> <p>1 Samian body sherd, small</p> <p>1 Samian carinated body sherd, small</p> <p>2 Amphora, one large burnt sherd, one small, both with buff fabric</p> <p>1 Calcite-gritted ware, small body sherd with scored horizontal lines</p> <p>1 Ebor red slipped strap handle with two deep grooves and swirl decoration on both sides, rough finish on internal</p> <p>1 burnt Ebor ware body sherd</p> <p>1 moderately gritted oxidised fabric with reduced core, small sherd</p>

				<p>1 stamped Samian dish, complete stamp is 'SILVI-OF'; which is Silvius ii of Lezoux, dating to c. AD 125-145</p> <p>1 stamped Samian scrap</p>
3068	BF17 8	2	Late 11th/mid -12th century	<p>1 Samian bowl, simple rolled rim, carinated near base, large sherd</p> <p>1 Gritty ware, small body sherd</p>
3071	BF17 7	22	2nd century	<p>1 Samian decorated body sherd, abraded, small</p> <p>1 Samian small body sherd</p> <p>2 Samian rolled rim, small sherds</p> <p>3 Ebor, small to medium body sherds</p> <p>2 Ebor white slipped flagon, joining sherds, neck and handle, strap handle, two grooves, medium to large sherds</p> <p>5 Ebor white slipped body sherds, small to medium</p> <p>1 finely gritted, oxidised fabric, burnished external, small body sherd</p> <p>1 Roughcast Colour Coated with brown/black colour on both surfaces, beaker, small body sherd</p> <p>1 scrap sandy oxidised fabric with buff external surface and sooting</p> <p>1 BB ware with horizontal/vertical line decoration, small body sherd</p> <p>1 White ware, small body sherd</p> <p>1 Roman Grey ware, small body sherd</p>

				2 Roman Grey ware straight sided dish/bowl simple inverted rims, small to medium sherds
3074	BF29 4	3	Late 11th/mid -12th century	1 finely gritted, reduced with oxidised surfaces, Splashed ware, green glaze on external surface, small body sherd 1 Gritty ware, small body sherd 1 Ebor, red slipped, base sherd, grey core, abraded, medium sherd
3076	BF17 6	16	Early 13 th /mid- 14th century	2 Ebor, flanged bowl? joining rim sherds, small 1 finely gritted, oxidised, Beverley type, everted rim, green brown glaze, red slip on rim?, abraded, medium sherd 2 York Glazed ware body sherds, small 1 moderately gritted white Splashed ware, self-slipped external surface, green glaze external, buff internal surface, medium body sherd 1 finely gritted, reduced green glaze with calcite inclusions, small rim sherd 1 scrap reduced green glaze body sherd 2 Grey ware with buff internal surface, small body sherds 2 Gritty ware, sooting on one sherd, small body sherds 1 moderately gritted, oxidised Splashed ware with reduced core, green brown glaze, small body sherd 1 handmade Anglo-Scandinavian ware, buff surfaces, moderate calcite inclusions, small to medium body sherd 1 scrap reduced Gritty ware, bowl rim scrap 1 finely gritted, oxidised Beverley type with reduced core, unglazed base, ribbing on body, abraded, large sherd

3078	BF17 5	13	mid 13th/mid -14th century	<p>1 Grey ware rolled rim, small</p> <p>1 Grey ware body sherd, scrap</p> <p>4 finely gritted, oxidised Beverley type, green or green brown glaze, small body sherds</p> <p>2 Gritty ware, small body sherds</p> <p>1 Ebor ware, moderately gritted, red slipped, burnt, body sherd, medium to large</p> <p>1 abraded Shelly ware, oxidised and buff surfaces, small body sherd</p> <p>1 moderately gritted, oxidised ware with brown glaze, small body sherd, Beverley type?</p> <p>1 coarsely gritted oxidised ware, with buff core and external and internal pink fabric, yellow glaze, Splashed ware/glazed Gritty ware?</p> <p>1 Splashed ware body sherd, creamy fabric with light olive green glaze, rilled body, medium sherd</p>
3079	BF29 3	13	12th/13th century	<p>1 Samian body sherd, small</p> <p>1 Ebor, abraded body sherd, small</p> <p>2 moderately gritted, oxidised, calcite inclusions, small body sherds</p> <p>1 Ebor strap handle with central groove, medium</p> <p>1 coarsely gritted, oxidised base, buff and burnished external, with sooting, likely jar form, medium</p> <p>2 Ebor rim and shoulder of flagon, joining, medium sherds, join with above handle?, evidence of handle scarring, flat topped rim, abraded ring neck</p> <p>3 Ebor, red slipped, small body sherds</p> <p>1 Ebor, neck and shoulder, abraded, medium sherd</p> <p>1 moderately gritted, oxidised, rim, straight sided, small</p>
3080	BF17 4	10	13th- 15th century	<p>1 Grey ware rim, lighter grey core with large calcite inclusions, thumb indents on rim and shoulder, large sherd (Torksey?)</p> <p>2 finely to moderately gritted reduced fabric with buff external surface, Splashed ware on base, large sherd</p> <p>2 early York Glazed ware body sherds, pink fabric, lightly incised horizontal lines, green/suspended glaze, small sherds</p> <p>1 Grey ware scrap, incised lines</p> <p>1 moderately gritted, reduced open fabric, Lincolnshire ware?, tubular bridge spout with pushed through hole decoration, green brown glazed, medium sherd</p> <p>2 finely gritted, oxidised with reduced core, roughly made straight sided jar, with splash glaze on top of rim, large</p>

				<p>and very small sherd</p> <p>1 finely gritted, reduced green glaze, medium body sherd</p>
3081	BF17 3	11	mid- 13 th /mid- 15 th century	<p>1 Splashed ware finely gritted oxidised thickened rim, medium sherd</p> <p>1 Splashed ware finely gritted oxidised body sherd</p> <p>1 abraded Samian base, medium</p> <p>1 abraded Ebor ware, small</p> <p>4 moderately gritted reduced ware, small body sherds, green glaze, two have buff internal surface</p> <p>1 glazed finely gritted oxidised applied thin strip with notched decoration, green brown glaze</p> <p>1 Gritty ware body sherd, small</p> <p>1 glaze tile?</p>
3082	BF17 2	45	2 nd century	<p>3 Roman Grey ware with lattice decoration, small body sherds</p> <p>1 BB ware, small and abraded</p> <p>3 burnished Grey ware, small body sherds</p> <p>1 Crambeck painted parchment ware, small body sherd</p> <p>1 imported Colour Coated ware, white fine fabric, dark red colour on both surfaces, wavy vertical line and dot decoration, small body sherd</p> <p>2 Rusticated Grey ware, small body sherds</p> <p>2 Amphora, medium sherds</p> <p>9 Ebor, scrap to small body sherds</p> <p>1 Ebor, white slipped strap handle with central groove, small</p> <p>1 Ebor white slipped scrap</p> <p>1 Ebor base, small</p> <p>3 Samian small body sherds</p> <p>1 Samian dish flanged rim, small</p> <p>6 Samian, simple rolled rim, likely dish, small to medium</p> <p>1 Samian, simple rolled rim with decoration on external surface, small</p> <p>4 Samian, decorated body sherds, including stag, small to medium</p>

				<p>1 finely gritted, reduced with red surfaces, hard fired, Roman, base, small</p> <p>1 finely gritted, reduced with red slip on both surfaces, small body sherd</p> <p>1 moderately gritted, oxidised Splashed ware base, buff/brown external surface with sooting on underside of base, medium</p> <p>1 moderately gritted, oxidised fabric, small body sherds</p> <p>1 Samian, base with footring, stamped internal: 'SILVI.....OF'; large sherd</p>
3084	BF17 1	6	Mid- 13th/mid -14th century	<p>1 Samian, simple rolled rim of bowl/dish, decorated</p> <p>1 Calcite-gritted jar rim, hooked and lid seating (Huntcliff type) (5th century), medium sherd</p> <p>1 BB1 ware, small body sherd</p> <p>1 scrap Splashed ware</p> <p>1 finely gritted, hard fired, reduced fabric with dark red internal surface, abraded medium sherd</p> <p>1 gritty Brandsbury type, oxidised with reduced core, stripe of over fired green glaze on white slip, medium body sherd</p>
3092	BF17 0	94	late 2nd/earl y 3rd century	<p>2 Colour Coated, native, Colchester?, joining small body sherds</p> <p>2 Samian bases, joining, with foot ring, decorated on underside of base, external, likely Dragendorff form, small to medium sherds</p> <p>1 Samian rim, Dragendorff 36 form type with decoration on rim, bowl, Central Gaul region, 2nd century, small sherd</p> <p>1 Samian, Dragendorff bowl rim with moulded decoration, small sherd</p> <p>1 Samian, carinated bowl rim, medium sherd</p> <p>1 Samian, plain rim of saucer like platter, small sherd</p>

				<p>2 Samian, simple rolled rim, one decorated, small sherds</p> <p>5 Samian, decorated small body sherd</p> <p>4 Samian, small body sherds</p> <p>1 Roman White ware cup mouthed flagon rim, small</p> <p>2 Roman White ware, mica dusted, small body sherds</p> <p>2 Roman White ware, small body sherds</p> <p>9 Roman Grey ware, small to medium body sherds</p> <p>2 burnished Grey ware body sherds, medium</p> <p>2 Grey ware everted jar rim, small to medium sherds</p> <p>13 Ebor, small to medium body sherd, sooting on 4 external surface</p> <p>8 Rusticated Grey ware, small to medium body sherds</p> <p>1 Roman Grey ware base, large sherd</p> <p>3 burnished Grey ware base, small to medium sherds</p> <p>1 BB ware dish rim with flange, small</p> <p>1 BB ware everted jar rim, small</p> <p>1 Ebor jar base, burnished and sooted on external surface, medium sherd</p> <p>1 Roman reduced with white slip, small body sherd</p> <p>1 Ebor flask? rim, flat topped with narrow opening, medium sherd</p> <p>1 Ebor everted jar rim, sooting external and internal, medium</p> <p>7 Ebor with red slip, small body sherds</p> <p>1 Ebor Tazze rim, single frill at rim, large sherd</p> <p>1 finely gritted, oxidised Splashed ware handle with thumb imprint, intrusive? small</p> <p>1 Roman, moderately gritted, oxidised with iron and pink quartz inclusions, self-slipped on external, small body sherd</p> <p>3 local Grey ware Mortaria, joining, Form ME?, needs looking at by specialist, large sherds</p> <p>2 Roman White ware jar, body sherd and everted rim with grooves on shoulder, medium sherds</p> <p>3 Roman reeded rim bowl with grooves at neck, oxidised fabric, buff fabric with a light orange core, coarse clay pellets in matrix, slightly open fabric, rim and body sherds, small to large sherds</p> <p>5 Ebor base, one complete with shallow foot ring, two joining, medium sherds</p> <p>1 Ebor flagon rim, medium sherd</p> <p>1 Roman beaker base, with finely gritted, reduced fabric with red slip on both surfaces, large sherd</p>
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				2 Ebor jar base, joining, sooted on external surface, small to medium sherds
3094	BF16 9	33	Mid- 13 th /mid- 14th century	<p>1 finely gritted, reduced Splashed ware rim, lid seated?, thumb impression on squared rim, small sherd</p> <p>1 Gritty ware small body sherd, sooting external</p> <p>1 moderately gritted oxidised coarse ware, small body sherd, sooting external</p> <p>1 Gritty ware base, medium sherd</p> <p>1 moderately gritted, reduced coarse ware, black fabric, buff external surface, base, small sherd</p> <p>1 York Glazed ware, scrap</p> <p>2 Ebor, white slipped, small body sherds</p> <p>1 Crambeck parchment ware, small body sherd</p> <p>1 finely gritted oxidised with reduced core splash ware, rim of bowl?, glaze on both surfaces</p> <p>14 finely gritted oxidised Splashed ware small body sherds</p> <p>2 Ebor, abraded small to medium body sherds</p> <p>1 finely gritted, reduced Splashed ware rim, small and abraded, green glaze on all surfaces</p> <p>1 Rusticated Grey ware, small body sherd</p> <p>1 Ebor, white slipped with a reduced core, ring necked flagon rim, small</p> <p>1 Calcite-gritted ware, small body sherd</p> <p>2 moderately gritty, oxidised Splashed ware, small body sherds</p> <p>1 Shelly ware, small body sherd, abraded</p>
3095	BF16 8	4	2nd century	<p>1 Rusticated Grey ware body sherd, small</p> <p>2 Ebor red slipped, body sherd, small</p> <p>1 finely gritted, Roman oxidised ware, buff surfaces, rare calcite inclusions</p>
3096	BF16 7	11	Mid- 14th/mid- 15th century	<p>1 Shelly ware, small body sherd</p> <p>1 finely gritted, reduced Splashed ware with green glaze, small body sherd</p> <p>2 finely gritted, oxidised Splashed ware, brown and green brown glaze, small to medium body sherds</p> <p>1 glazed waster, small</p> <p>1 Walmgate jug handle and rim, strap handle with two thumb imprints, medium</p> <p>2 Gritty Brandsby type, one body sherd, one large strap handle and rim, medium sherds</p> <p>1 York Glazed ware, small body sherd</p> <p>1 oxidised over fired waster, small</p>

				1 finely gritted, light reduced fabric, buff/brown fabric, over fired abraded glaze, medium body sherd
3100	BF16 6	59	Late 1st/early 2nd century	<p>1 Rusticated Grey ware, small body sherd</p> <p>4 Ebor, small body sherds</p> <p>1 York White ware, Stamford type, green external glaze, rouletted thumb strip, vertical, small body sherd</p> <p>2 burnished Grey ware, one with vertical line decoration, small body sherds</p> <p>2 Roman oxidised fabric, self-slipped, sooting on external surface, small body sherds</p> <p>9 Amphora, oxidised fabric, pink internal, cream or white external, small to large body sherds</p> <p>1 Roman Grey ware jar everted rim, small</p> <p>1 Grey ware carinated bowl, legionary style, with reeded rim, (late 1st-early 2nd)</p> <p>1 slight everted bowl rim, with rilling, medium sherd</p> <p>3 Roman Grey ware body sherds, small</p> <p>2 Roman finely gritted, hard fired reduced ware with dark red surfaces, body sherds, small to medium</p> <p>6 Roman oxidised fabric, sooting on external surface, small body sherds</p> <p>2 Roman oxidised fabric bases, sooting and burning on external surface of one, along with large calcite inclusions, other is abraded but some evidence of burnishing on external surface</p> <p>2 Samian decorated base, Dragendorff 37, decorated bowl (AD 70-230)</p> <p>1 Samian base, partial makers stamp – ‘.....AS..ILE?’, small sherd, abraded/chipped at?</p> <p>1 Samian base, shallow foot ring, tiny part of makers stamp present, but unclear, medium sherd, abraded/chipped at?</p> <p>4 Samian small plain rims, scrap to small sherds</p> <p>3 Samian decorated rim sherds, Dragendorff 30, decorated bowl (AD 40-230), small to large sherds</p> <p>4 Samian decorated rim sherds, Dragendorff 37, small sherds</p> <p>2 Samian plain body sherds, likely Dragendorff 27, plain</p>

				<p>cup (AD 50-150), small sherds</p> <p>6 Samian decorated body sherds, decoration includes helmeted soldier/gladiator, lion like animal and large palm plants, small to medium sherds</p> <p>1 Amphora, reduced, moderately gritted, open fabric, gritty on internal, smoothed on external, large body sherd</p>
3101	BF16 5	6	1 st /mid- 3rd century	<p>1 Roman Grey ware body sherd, small</p> <p>1 Ebor, everted rim, small</p> <p>4 Ebor, small body sherds</p>
3102	BF16 4	18	Late 11 th /late 12th century	<p>1 Ebor, white slipped small body sherd</p> <p>1 Gritty ware, scrap</p> <p>1 Samian bowl, small rim sherd</p> <p>1 BB ware, small body sherd</p> <p>1 Ebor bowl rim, medium sherd</p> <p>2 Ebor small body sherd</p> <p>4 moderately gritted, oxidised fabric, two very abraded, small body sherds</p> <p>1 finely gritted, oxidised with a reduced core Splashed ware base, medium sherd</p> <p>1 finely gritted, oxidised with a reduced core Splashed ware medium body sherd</p> <p>1 Calcite-gritted jar with hooked rim and lid seating (Huntcliff type), medium sherd</p>

				<p>2 moderately gritted, oxidised kiln material?</p> <p>2 finely gritted, oxidised kiln material?</p>
3103	BF16 3	20	2nd century	<p>1 Splashed ware, moderately gritted, oxidised, lightly reduced centre</p> <p>3 Ebor cup base, join, sooting on internal</p> <p>1 Ebor body sherd, medium</p> <p>1 Ebor bowl rim, small</p> <p>3 Grey ware body sherds, medium</p> <p>2 Samian, decorated, abraded, small</p> <p>9 Black Burnished pie dish bowl, joining sherds, small to large</p>
3104	BF16 2	8	Late 11th-mid 12th century	<p>2 Gritty ware, small body sherd</p> <p>1 Crambeck ware jar rim, small sherd</p> <p>1 Ebor with reduced core and burnished external surface, small body sherd</p> <p>1 sandy oxidised fabric with burnished surface, Roman, small sherd</p> <p>2 Rusticated Grey ware with oxidised core, join, small sherds</p> <p>1 White ware, medium body sherd</p>
3105	BF16 1	22	Late 1st/early 2nd century	<p>1 large sherd Ebor Mortaria, red slip, form ME</p> <p>8 body sherds Ebor ware, small to medium</p> <p>1 large sherd Amphora</p> <p>1 medium body sherd Grey ware</p> <p>1 base Grey ware, small</p> <p>1 Rusticated Grey ware, small body sherd</p> <p>1 thick walled Ebor ware, body sherd medium</p> <p>1 Ebor rim, small</p> <p>1 Samian rim, small</p> <p>3 Ebor jar rim, join</p> <p>2 Ebor with reduced core and white slip, small</p> <p>1 Ebor shallow platter? evidence of burning</p>

3106	BF16 0	16	Mid- 13th/mid -14th century	<p>1 abraded Samian, small</p> <p>1 buff fabric Black Burnished ware, with lattice decoration</p> <p>2 over fired finely gritted oxidised Splashed ware, small body sherds</p> <p>1 finely gritted oxidised Splashed ware, small body sherd</p> <p>2 oxidised moderately gritted coarse wares, small</p> <p>1 rim of oxidised Gritty ware, jar</p> <p>1 base of abraded Gritty ware, small</p> <p>1 tile</p> <p>1 Roman Grey ware with buff sandy fabric, rim</p> <p>1 Ebor, rim, small sherd</p> <p>1 glazed Gritty ware, yellow glaze, body sherd, small</p> <p>1 Roman White ware rim, Manchetter-Harthill fabric?, small</p> <p>1 moderately gritted, oxidised Glazed ware, small</p> <p>1 Red Sandy ware, brown glaze, slip on internal and along edges, small</p>
3107	BF15 9	4	Mid- 13th/mid -14th century	<p>1 Beverley type, light green glaze, small body sherd</p> <p>3 reduced Beverley type ware jug body sherds, small</p>
3109	BF15 8	7	12th century	<p>1 burnished Grey ware rolled rim pie dish</p> <p>1 moderately gritted Splashed ware, rim</p> <p>2 Gritty ware, small sherds</p> <p>1 buff fabric flagon rim, small and abraded</p> <p>1 brown fabric rim, black glazed, overfired?</p> <p>1 buff fabric body sherd, small Roman</p>
3110	BF15 7	28	12th century	<p>1 Ebor white slip base, small</p> <p>1 abraded White ware, small</p> <p>2 Roman Calcite-gritted jar rim, small to medium</p> <p>5 oxidised Splashed ware, body sherds, small</p> <p>2 Colour Coated body sherds, small</p> <p>1 small Grey ware</p> <p>1 Ebor body sherd</p> <p>1 York ware jar rim, medium</p> <p>1 Gritty ware jar rim, small</p> <p>4 Gritty ware body sherds, small</p> <p>1 York ware jar base, small</p> <p>5 abraded coarsely gritted Splashed ware, oxidised with reduced core, small to medium sherds</p> <p>1 base of hard, reduced, moderately gritted fabric, small</p> <p>2 oxidised moderately gritted scraps</p>

3112	BF80	62	2nd century	3 Samian cup ref. Hartley no. 27. 1st/mid-2nd century 4 rusticated Grey ware including small jar 1st/early 2nd century 1 burnished Grey ware 1 Samian with moulded decoration 8 Grey ware jar 2 Amphora 29 Ebor including bowl, small jar rim, scratched base 3 Ebor jar including rim, sooted 7 Ebor with white slip 1 Pale ware with white surfaces, small 1 Parchment type, small 1 burnt Ebor flagon base 1 Ebor industrial jar with hole pushed through base
3114	BF79	3	13th century	1 York Glazed ware jug with reduced core and vertical comb and dot decoration 1 fine oxidised ware with degraded glaze over edge 1 reduced green glaze with copper spots
3116	BF78	6	late 11th/12th century	2 York ware, small sherds 4 oxidised with reduced core, Splashed fabric unglazed
3117	BF77	1	late 3rd/early 4th century	1 Calcite-gritted jar rim
3119	BF76	2	1st-4th century	1 oxidised coarsely gritted scrap 1 burnished Grey ware rim
3126	BF75	5	12th century	4 Grey ware 1 Splashed ware strap handle with central groove
3130	BF74	6	12th century	1 burnished Grey ware rim 3 Splashed wares with decayed glaze 1 burnished Grey ware with buff internal surface 1 buff ware with reduced core unglazed
3131	BF73	18	12th century	2 Ebor 8 oxidised Splashed ware includes collared rimmed pitcher and jar rim 2 coarse reduced Splashed ware 1 coarse White Splashed ware, tiny 1 pale reduced Splashed ware 1 burnished Grey ware with lattice decoration 1 local coarse Grey ware rim

				<p>1 burnished Grey ware</p> <p>1 Grey ware</p>
3132	BF72	81	3rd century	<p>8 Samian, 5 bowl rims including 2 with moulded decoration and one carinated body sherd</p> <p>1 fine Ebor bowl with carinated body</p> <p>1 Ebor flagon rim with handle attachment</p> <p>1 sandy Ebor bowl rim</p> <p>1 Ebor flagon handle</p> <p>1 Ebor flagon body, large</p> <p>1 Ebor bowl rim</p> <p>19 Ebor body sherds</p> <p>2 Ebor red slip, small</p> <p>1 Ebor red external, white internal slip</p> <p>3 Ebor type jar rims</p> <p>1 Ebor bowl base</p> <p>1 Ebor bowl with thumbled flanged rim</p> <p>1 Ebor white slip, medium</p> <p>2 Splashed ware, small</p> <p>1 Ebor bowl base, medium</p> <p>1 Colour Coated, small</p> <p>2 Ebor with reduced core, one of which is base</p> <p>4 Ebor type, hard with reduced core</p> <p>3 Mortaria with reduced core and oxidised surfaces with white grits small to very large sherds</p> <p>3 Rusticated Grey ware</p> <p>4 Crambeck type jars, one with flat top rim</p> <p>3 fine Black Burnished including jar rim and one with rouletting decoration</p> <p>11 light Grey ware jar</p> <p>1 fine Grey ware not burnished</p> <p>1 burnished Grey ware jar rim with flat top</p> <p>1 fine White ware with sooted exterior</p> <p>1 Mortaria, grey fabric and brown surfaces very large sherd</p> <p>1 very narrow necked cylindrical body sherd, with reduced core, oxidised external margin and light brown surfaces over fired?</p>

3140	BF71	23	Mid-13th/early 14th century	1 waste/kiln material 1 late Bransbury jug with combed wavy line decoration 1 Ebor with white slip 1 medieval thick walled body sherd with heat altered glaze-waster 3 York ware jar including rim, heavily sooted 1 small sherd early Splashed ware 2 White Gritty ware jar including squared off rim 2 Splashed ware with reduced fabric, small sherds 6 oxidised Splashed ware with decayed glaze 1 Roman local Grey ware with stripes 1 Roman Grey ware 1 pale reduced Splashed ware with decayed glaze over edge 2 oxidised body sherds with decayed glaze
3142	BF70	18	Mid-13th/mid-14th century	1 Samian bowl base, partial stamp 'W'? 2 Ebor with white slip, small sherds 1 post-medieval Earthenware strap handle with central groove and remnants of green brown glaze 1 Splashed ware 2nd/waster with mottled green glaze, small sherd 1 over-fired Beverley type with matte purple external surface 1 over-fired Beverley-type, small sherd 1 Roman Grey ware jar rim 5 medieval Red ware includes simple rounded rim possibly from Beverley area 2 over-fired Splashed ware 1 medieval moderately gritted with light green glaze 1 bowl with bifid rim, over fired, medieval 1 Splashed ware fabric, no glaze
3143	BF69	1	mid-11th-mid 13th century	1 moderately gritted, oxidised Beverley type? small base, sooting
3144	BF68	1	12th century	1 small sandy Beverley type
3145	BF67	8	12th century	1 Stamford glazed handle with central groove, small sherd 1 Beverley type part of base, with pre-firing hole 2 York ware type, small 4 coarse Splashed ware
		2402		

Fabric/Ware type	No. sherds
Roman White Ware	23
Amphora	30
Grey burnished ware	73
Ebor	347
Samian	83
Crambeck	11
Roman Calcite Gritted	16
Roman Grey ware	207
Colour coated (native & import)	30
Black burnished ware	45
Hard fired reduced fabric with dark red surfaces	10
Rusticated Grey ware	33
Lincolnshire fabric	2
Total	910

Table 4 Roman fabric types

Fabric	No. sherds
SPFOX	927
SPMOX	24
SPCOX	14
SPFR	19
SPMR	6
SPCR	4
SPMW	5
<i>Total Splash Glaze</i>	<i>999</i>
Gritty ware	83
MOX	33

FOX/Beverley Type	51
COX	2
York ware	7
Reduced Green Glaze	21
Brandsby Type	27
Ryedale/Earthenware	13
York Glazed Ware	46
Cistercian	10
Stoneware	2
Hambleton	1
Red ware	9
Stamford	4
Humber	6
Shelly Ware	4
Total	1318

Table 5 Medieval fabric types

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APPENDIX 4 - SMALL FINDS BY R. SAMPSON

1 INTRODUCTION

Excavations at the City of York Guildhall site in 2020 have produced a total of 130 small finds. The small finds have been rapidly assessed, focussing primarily on identification and determining which objects would benefit from further conservation work or specialist identifications.

2 METHODOLOGY

All the finds of iron, copper alloy and silver were x-rayed prior to the assessment being carried out, and identifications of these objects have been made with reference to the x-rays. Discussion of the finds is arranged by material.

3 DISCUSSION

Iron

48 iron finds were assessed, of which 38 are clench bolts, nails, or fragments of the latter.

There are a few further iron finds which are of interest, including SF84 (C3048) which could be a tool, possibly a wedge or punch. SF106 (C3104) is an iron object with a fairly wide arm, dividing into two thinner arms which form a rectangular loop when fitted together – making this possibly a hasp or similar fitting. The wider end is broken so the original terminal is unknown, whereas the terminals of the two thinner arms do not appear broken and it is not clear whether they would have joined originally. Another possible fitting is SF100 (C3092), a flat plate with a large round perforation tapering to a thin bent terminal. The final few iron objects are undiagnostic.

Corrosion on the iron objects has meant that a few objects have been unable to be identified.

Copper Alloy

32 objects of copper alloy were assessed.

Many have finer details visible on the x-rays but not to the eye due to corrosion products. Twelve are fragments which are unidentifiable due to size, condition or corrosion, while a further five are identifiable objects but due to condition or other cannot be identified with any greater detail. These five include what is possibly a chape, SF46 (C3052), with a terminal in the shape of

a fleur-de-lys and SF51 (C3026) which although in poor condition could be part of a clasp or strap-end.

All of the four copper alloy coins are covered with corrosion products to the point that they are illegible, although it is possible to see very faint motifs, including a bust with a crown on SF37 (C3055).

The copper alloy jetton, SF39 (3043) has a motif of an orb within a trilobe, making it likely to be a post-medieval Nuremberg jetton dating to around the first three quarters of the 16th century.

The copper alloy parchment pricker, SF42 (C3150) is in style very similar to those excavated from Bedern, with a globular head and triple collar below, likely to date from between the 12th and 16th century.

SF45 (C3053) is either a strap end or buckle plate, highly decorated with a pattern of loops and rectangles. The pattern creates series of segments which suggests that the object may be enamelled.

Smaller copper alloy finds include SF52 (C3025), consisting of two copper alloy lace tags from a levelling deposit, likely to date from 15th-16th centuries, copper alloy pins, SF48 (C3043) and SF49 (3031), a rivet SF54 (C3026) and a strip SF36 (C3000). There is also a copper alloy ring, SF44 (C3102) with a possible small fastening which suggests its use as an earring, and a simple finger-ring in good condition with no decoration, SF47 (C3050). SF43 (C3132) is a copper alloy toilet instrument or ear scoop.

Silver

The two silver finds excavated are both coins.

SF2 (C7009) is a Roman coin but x-rays could not assist with identification, although a very faint motif is visible. SF41 (C3029) is completely debased and appears to be a French jetton and features a long cross on the reverse with a possible fleur-de-lys decoration in the alternating quarters.

Lead alloy

Three finds of lead alloy were assessed.

SF34 (C3055) is a fragment roughly 4cm in length, which is either a strip or a piece of window came. SF35 (C3001) is a disc-shaped lead or lead alloy object with a slightly flat dome on one side, which could possibly be a weight.

The final lead alloy find, SF33 (C3055), appears to be modern from the fill of a pit cut. It is possibly copper alloy with a tinned surface.

Antler

Eleven out of the twelve small finds made of antler consist of offcuts of tine, beam or burr.

Six of the antler finds are offcuts of tine, all of which have cut or saw marks visible. Of these, the most worked are SF29 (C3057) and SF30 (C3107) have either been cut or sawn at one end and faceted at the other.

Three of the finds are antler burrs, all clearly cut or sawn. The other two antler offcuts are from a section of beam. SF28 (C3050) is an antler comb blank with the upper edge cut into a wedge shape.

The majority of these are from contexts relating to levelling, containing medieval pottery and CBM.

Bone

Three finds made of bone were assessed.

SF22 (C3103) is a complete bone hair pin with a terminal in the shape of a hand holding a small circular object. Similar pins have been found elsewhere in Britain, including a hand holding symbolic objects such as an egg, a pomegranate, or a pearl. These are more often found made of metal than bone. Bartus (2007) states that hairpins representing human hands holding small globular objects can be dated from the end of the first century to the third-fourth century, with the better quality examples mainly datable to the first and second century.

The other two objects made of bone were the shank from a needle or pin, SF24 (C6019), with both ends broken, and a bone object with an unknown use, SF23 (C3057), which has an outer carved surface and polished surface, with the inner bone tissue removed.

Glass

18 glass finds were assessed, with a further two small finds which were made of frit.

The majority of the glass finds are blue/green glass vessel fragments, which are typical of the Roman glass dating between the first to third century. There are also some lightly tinted fragments (such as the pale blue and yellow/green shades) glass that was in use when York was first occupied. A few fragments could come from the rim or foot of a vessel, including SF13 (C3029) and SF32 (3102). SF19 (C3048) is a fragment of an opaque blue/green glass bead.

Two turquoise frit bead and bead fragments were excavated from levelling deposits. SF20 is a frit melon bead, worn and granular, with iron staining in between the interstices of the decoration. SF21 is a complete melon bead of frit. The bead is slightly misshapen and the gadroons are uneven. Frit melon beads were very common on 1st and 2nd century sites in Britain and have been found at multiple sites across York, including six from the excavations at nearby Blake Street.

Leather

Two finds made of leather were assessed.

The conservation assessment has identified SF129 as a possible jerkin fragment. Recovered from Pile 43, the fragment measures roughly 330mm by 250mm. The leather itself is thin and is made of what is possibly sheep or goat leather. One original edge remains with a double f/g seam. All other seams have either been re-cut or torn.

The other leather find, SF130, consists of six fragments from Pile 47. Each fragment has one original edge but all others are torn. No seams or stitching survives and no further identification can be made.

Stone

Two stone small finds were assessed. SF116 (C3142) is a small fragment of a hone stone, while SF128 (C3043) is part of a stone mortar from a grave backfill context.

4 CONCLUSION

The assemblage of small finds evidence the continued use of the site for a significant period of time. The finds range in date from the Roman to the modern periods, with several significant finds including the Roman bone hair pin and several of the copper alloy finds.

5 RECOMMENDATIONS FOR FURTHER RESEARCH

Some of the small finds have potential for further research. The coins should be looked at by a numismatist. A review of the finds by a Roman specialist could also be useful. The copper alloy finds would benefit from further conservation intervention which could aid in identifying the objects further. Wood and textile remains attached to iron and copper alloy objects could also be analysed, if required.

Table 6 Small finds

SF no.	Site ID	Material	Name	Context
SF1	6019	Iron	Nail	3007
SF2	6019	Silver	Coin	7009
SF3	6019	Glass	Fragment	7011
SF4	6019	Glass	Fragment	3132
SF5	6019	Glass	Fragment	3038
SF6	6019	Glass	Fragment	3104
SF7	6019	Glass	Fragment	3025
SF8	6019	Glass	Fragment	3026
SF9	6019	Glass	Fragment	3031
SF10	6019	Glass	Fragment	3112
SF11	6019	Glass	Fragment	3055
SF12	6019	Glass	Fragment	3082
SF13	6019	Glass	Fragment	3029
SF14	6019	Glass	Fragment	3048
SF15	6019	Glass	Fragment	3092
SF16	6019	Glass	Fragment	3026
SF17	6019	Glass	Fragment	3050
SF18	6019	Glass	Fragment	3071
SF19	6019	Glass	Bead Fragment	3048
SF20	6019	Frit	Melon Bead Fragment	3048
SF21	6019	Frit	Bead	3092
SF22	6019	Bone	Hairpin	3103
SF23	6019	Bone	Object	3057

SF24	6019	Bone	Needle	3029
SF25	6019	Antler	Tine Offcut	3025
SF26	6019	Antler	Burr	3027
SF27	6019	Antler	Tine Offcut	3029
SF28	6019	Antler	Comb Blank	3050
SF29	6019	Antler	Tine Offcut	3057
SF30	6019	Antler	Tine Offcut	3107
SF31	6019	Antler	Beam Offcut	3116
SF32	6019	Glass	Fragment	3102
SF33	6019	Lead alloy	Object	3055
SF34	6019	Lead alloy	Came	3055
SF35	6019	Lead alloy	Object	3001
SF36	6019	Copper alloy	Strip	3000
SF37	6019	Copper alloy	Coin	3055
SF38	6019	Copper alloy	Coin	3052
SF39	6019	Copper alloy	Jetton	3043
SF40	6019	Copper alloy	Coin	3051
SF41	6019	Silver	Coin	3029
SF42	6019	Copper alloy	Parchment Pricker	3150
SF43	6019	Copper alloy	Toilet Implement	3132
SF44	6019	Copper alloy	Ring	3102
SF45	6019	Copper alloy	Strap End	3053
SF46	6019	Copper alloy	Object	3052
SF47	6019	Copper alloy	Ring	3050

SF48	6019	Copper alloy	Pins	3043
SF49	6019	Copper alloy	Pin	3031
SF50	6019	Copper alloy	Fragment	3026
SF51	6019	Copper alloy	Object	3026
SF52	6019	Copper alloy	Lace tags	3025
SF53	6019	Copper alloy	Fragments	3026
SF54	6019	Copper alloy	Rivet	3026
SF55	6019	Copper alloy	Fragment	3052
SF56	6019	Copper alloy	Fragment	3052
SF57	6019	Copper alloy	Fragment	3058
SF58	6019	Copper alloy	Object	3058
SF59	6019	Copper alloy	Fragment	3069
SF60	6019	Copper alloy	Fragments	3069
SF61	6019	Copper alloy	Objects	3092
SF62	6019	Copper alloy	Fragment	3092
SF63	6019	Copper alloy	Fragments	3094
SF64	6019	Copper alloy	Object	3096
SF65	6019	Copper alloy	Fragments, objects	3100
SF66	6019	Copper alloy	Fragment	3103
SF67	6019	Copper alloy	Coin	3110
SF68	6019	Copper alloy	Fragments, objects	3112
SF69	6019	Iron	Nails, object	3000
SF70	6019	Iron	Clench Bolt	3025

SF71	6019	Iron	Clench bolts, nails	3026
SF72	6019	Iron	Clench bolt, nails, fragment	3026
SF73	6019	Iron	Nails, objects, fragments	3026
SF74	6019	Iron	Nails, object, fragments	3031
SF75	6019	Iron	Nail	3027
SF76	6019	Iron	Object, nail	3032
SF77	6019	Iron	Object	3032
SF78	6019	Iron	Nails	3033
SF79	6019	Iron	Nail	3038
SF80	6019	Iron	Nails	3043
SF81	6019	Iron	Clench bolts, nails, fragments	3045
SF82	6019	Iron	Clench bolts	3047
SF83	6019	Iron	Nail	3048
SF84	6019	Iron	Object	3048
SF85	6019	Iron	Clench bolt, nails	3050
SF86	6019	Iron	Clench bolts, nails	3052
SF87	6019	Iron	Nails, slag	3053
SF88	6019	Iron	Nail	3055
SF89	6019	Iron	Clench bolt, nails	3057
SF90	6019	Iron	Nail	3060

SF91	6019	Iron	Clench bolt, nail, fragments	3062
SF92	6019	Iron	Nails	3064
SF93	6019	Iron	Nails	3068
SF94	6019	Iron	Nail	3070
SF95	6019	Iron	Nail	3071
SF96	6019	Iron	Nail	3076
SF97	6019	Iron	Object	3080
SF98	6019	Iron	Nail	3082
SF99	6019	Iron	Nail	3092
SF100	6019	Iron	Object	3092
SF101	6019	Iron	Nails	3094
SF102	6019	Iron	Object	3096
SF103	6019	Iron	Staple	3098
SF104	6019	Iron	Nails	3098
SF105	6019	Iron	Clench bolt, nails, fragment	3102
SF106	6019	Iron	Object	3104
SF107	6019	Iron	Nails	3107
SF108	6019	Iron	Nail	3110
SF109	6019	Slag		3110
SF110	6019	Iron	Fragments	3112
SF111	6019	Iron	Nail	3116
SF112	6019	Iron	Nails	3126
SF113	6019	Iron	Nail, objects	3130
SF114	6019	Iron	Nail	3131

SF115	6019	Iron	Nail	3140
SF116	6019	Stone	Hone fragment	3142
SF117	6019	Plaster	Fragment	3000
SF118	6019	Antler	Offcut	3045
SF119	6019	Antler	Offcut	3050
SF120	6019	Antler	Offcut	3076
SF121	6019	Antler	Fragments, offcut	3109
SF122	6019	Antler	Offcut	3110
SF123	6019	Slag		3026
SF124	6019	Slag		3056
SF125	6019	Slag		3057
SF126	6019	Slag		3080
SF127	6019	Iron	Object	3112
SF128	6019	Stone	Mortar	3043
SF129	6019	Leather	Object	0
SF130	6019	Leather	Fragments	0

APPENDIX 5 –BUILDING MATERIALS BY JMCCOMISH

5.1 Ceramic Building Material

5.1.1 INTRODUCTION

This assessment relates to 173.079kg (784 sherds) of CBM recovered from archaeological investigations at The Guildhall, York. The CBM was recovered by hand during the excavation process. The CBM ranged in date from Roman to post-medieval, though the majority of the collection was of medieval date.

With regards to the aims of the archaeological project as defined in the WSI, the CBM contributed information regarding the dating of specific contexts, but also suggests that the Roman deposits were relatively undisturbed by later activity giving rise to low levels of residuality.

Boreholes at the site were still in the process of being observed when this report was prepared; any additional material from these works will require a separate report. This assessment does not include CBM excavated at the site in 2018 which is stored on IADB (YAT's computerised database) under the same project code.

5.1.2 METHODOLOGY

The collection was recorded to a standard YAT methodology (McComish 2020b) whereby each sherd is individually recorded on a pro-forma sheet which details the project code, the context number, the weight in grams, the fabric type, the surviving complete dimensions (length, width, thickness, flange height), evidence of re-use, evidence of over-firing and any other relevant information (surface marks, glazes, unusual features etc.). A question mark is placed after the form name if the identification is uncertain, for example 'Imbrex?', while the form of non-standardised sherds is listed as 'Other'. The fabric is determined by comparing the sherd to a York fabric reference collection held by York Archaeological Trust (YAT). The data is stored on YATs internal computer system (which is backed up daily to prevent data loss) under the YAT project code 6019.

5.1.3 RESULTS

The various forms present are summarised by historical period on Table 7, while a summary by context is given on Table 8.

Roman

The Roman CBM accounted for 11.3% of the total volume of CBM from the site. The forms present included roof tiles (tegulae and imbrices), bessales, box flue and tesserae, but the majority of the fragments were of indeterminate form (termed Roman brick).

Roman tiles and bricks were made using sanded moulds on a sanded workbench and consequently the sides and basal surfaces are coated with fine sand. If a tile stuck to the workbench a wire (similar to a cheese-wire) would be used to separate the tile from the bench resulting in parallel lines on the base of the tile. Such lines were seen on a sherd of the Roman brick from the present site. Following moulding tiles were air-dried to a leather hard stage before being fired.

Tegulae are flat tiles rectangular tiles with a flange along the upper surface of each longer side and they were laid in columns on a roof. Tegulae have an upper cut-away on the upper surface

of the flange at the top end of the tile, and a lower cut-away on the basal surface of the lower end of the flange. The cut-aways of adjacent tegulae were designed to interlock enabling the tiles to lie flat when placed on the roof.

Tegulae show considerable variation in size nationally. Tegulae are usually 20-50mm thick, though a small number of examples are known nationally, including in York, that are 9-19mm thick (Brodrigg 1989, 13; Betts 1985, 170; McComish 2012, 222). The range of breadths previously recorded nationally is 270-480mm (Brodrigg 1989, 12), while in York the range is 301-392mm (Betts 1985, 171). Previously recorded lengths nationally range from 310-570mm (Brodrigg 1989, 12) and in York from 344-555mm (Betts 1985, 171; McComish 2012, 221). Flanges are usually double the thickness of the tegula face, though there is some variation (Brodrigg 1989, 13).

The tegulae at the present site ranged from 20-33mm in thickness (14 examples) with flanges 35-56mm thick (10 examples). No other complete original dimensions survived. The tegulae dimensions seen at the present site therefore lie within the ranges previously recorded. Tegulae flanges were approximately twice the thickness of the tile in height, again in accordance with the nationally observed pattern.

Tegulae (and imbrices) were smoothed after moulding to increase surface tension thereby making the tiles more water resistant. Smoothing lines parallel to the flange were present on two tegulae from the site. The smoothing parallel to the long edge were present on seven imbrices, while one example was smoothed parallel to the long and then the short edge.

Five lower cut aways were present which were in forms A26 and B6 (four examples), following the classification by Warry (2006, 61). Type B6 has been recorded in York previously, but not type A26 (McComish 2012, 83).

Imbrices are half cylindrical tiles which taper slightly in width from bottom to top; these were laid over the joints between the columns of tegulae and mortared into place, with narrow end of one imbrex slotting beneath the wider end of the imbrex above. The imbrices at the present site ranged in thickness from 17-14mm (17 examples), but no complete breadths or lengths were preserved. Smoothing lines parallel to the long edge were present on seven imbrices, while one example had smoothing parallel to the long and then the short edge.

Box flue tiles (tubuli) are hollow rectangular or square cross-sectioned tiles, with sanded interior surfaces, and they have vents in two opposing sides, while the other two sides are usually keyed. The keying can be incised, finger drawn, combed or relief-patterned. Box flues were made by wrapping a slab of clay around a sanded former then joining the edges of the clay together with a single seam, and the vents were cut out after the tile was removed from the former (Rudling et al. 1986, 204). Box flues were usually positioned in vertical columns around the sides of a hypocausted room to provide a lining, with the keyed surfaces facing towards and away from the centre of the room and the vents abutting one another, thereby allowing air to circulate through the wall. There is no standard size for box flues nationally, with heights ranging from 155-470mm and breadths/depths ranging from 85-330mm (Brodrigg 1989, 74). Six previously recorded complete examples from York range from 131-375mm high, 150-280mm wide and 120-140mm deep (Betts 1985, 181, McComish 2012, 156).

The box-flues from the present site ranged in thickness from 13-21mm (6 examples), but no complete breadths or lengths were preserved. There was one keyed sherd, which was combed. The surviving vents were circular (one example) and square (two examples) in shape, but no complete vent sizes were preserved.

Tesserae were used Roman mosaic flooring and they varied in size with the largest size at 10-15mm² being used tessellated pavements and for the borders of complex mosaic floors, smaller tesserae 3-10mm² were used for more detailed mosaic (*opus musivum*) floor designs and the finest tesserae of all at 2-8mm² were used for the most elaborate mosaics and for *emblemata*, such flooring being termed *opus vermiculatum* (Adam 2005, 233-4).

A single tessera was present; this was 16 x 17 x 12mm in size, indicating that it would have originated from a tessellated pavement.

Roman bricks were made in a series of standardised sizes based on a Roman foot; from smallest to largest these were bessales, pedales, Lydions, sesquipedales and bipedales. In the case of the present site a single bessalis was present; these bricks were sometimes circular in shape, and part of the curving outer edge was present. The remaining material recovered from the present site was too fragmented to determine the original form (such sherds are termed Roman brick). It is probable that the sherds classified as Roman brick which were 17-30mm thick were portions of tegulae originally (24 sherds).

One of the brick sherds was knife trimmed close to the arris on both the back and side of the tile; a second sherd had a knife trimmed edge and this sherd had a combed upper surface to aid the adhesion of mortar. One sherd was pierced by a firing-hole 14mm in diameter. Two sherds were smoothed on the upper surface parallel to the edge of the tile.

Some tiles were stamped while the tile was leather hard to indicate the producer (military, civic or civilian stamps all being known). Stile stamps are more common on tegulae and imbrices, though they can also be found on bricks and occasionally on box-flues (Brodrigg 1989, 124). At the present site a partially preserved legionary stamp was present on a single Imbrex, which was probably type 2642.7 (Collingwood and Wright 1993, 170) which has previously been recorded in York. This relates to the IX legion and therefore dates to c. AD 70-120.

Roman CBM is usually well-fired and on consistently high quality. Some features relating to firing were present, including 4 sherds of tegulae, 7 of imbrices, and 13 of bricks with reduced cores, caused by the exclusion of oxygen during part of the firing process. One of the Imbrices and one brick sherd had oxidised cores, caused by an increase in the level of oxygen during firing. A single brick sherd was blown due to over-firing.

One sherd of tegula, one of box flue and four sherds of Roman brick showed signs of re-use as building material/hearth material in the form of mortar or soot on broken surfaces.

The Roman CBM was in six fabrics (R1-R2, R9 and R10-12) all of which have been previously recorded in York. The bulk of the CBM was in fabrics R9, R10 and R11, which are the most commonly occurring fabrics in York (McComish 2012, 288).

The Roman CBM was typical for York as a whole in terms of the forms, fabrics and dimensions present.

Medieval

Medieval CBM accounted for 86.02% of the total volume of CBM from the site. The forms present included, roofing tiles of late 11th to early 13th century date (curved and flanged), roofing tiles of 13-16th century date (crested, peg, plain and ridge), floor tiles of 14-16th century date (decorated and plain glazed) and bricks of 14-16th century date.

Medieval tiles were made using a similar process to the Roman tiles, i.e. sanded moulds on a sanded workbench, followed by smoothing, then drying to a leather hard stage and finally firing. The exception was floor tiles which were cut from a flat slab of clay with a knife, they therefore have knife cuts sides, but sanded bases. The upper surfaces of roof tiles and bricks were usually smoothed with a cloth, creating fine smoothing lines on the upper surface, but in some instances the fingers were used to smooth the upper surface. Tiles could be either laid on the ground or placed in open sided sheds to dry to a leather-hard stage prior to firing.

Curved and flanged tiles of late 11th to early 13th century date imitate Roman tegulae and imbrices, but are smaller and thinner. In addition, they were always nailed to the roof with a single nail hole present centrally near the top of the tile. In terms of dimensions curved tiles in York range from 9-24mm thick, 105-137mm wide and 324-369mm long, while flanged tiles range from 12-29mm thick, 211-220mm wide and 348-357mm long, with flanges 16-56mm high (YAT database searched 4/3/2020).

The flanged tiles at the present site ranged from 10-25mm in thickness (118 examples) and 276-232mm in breadth (two examples), but no lengths survived. The flanges were 20-43mm high (120 examples). The flanges varied considerably in breadth ranging from 9-35mm (88 examples). One of the flange tiles at 10mm thick was slightly thinner than examples previously recorded in York and one at 25mm thick was marginally thicker, but the remaining sherds corresponded to the dimensions previously recorded in York. One of the examples with a complete breadth had parallel sides, while the second had sides that tapered inwards.

The curved tiles were 12-22mm thick (36 examples), and one was 116mm wide, but no other dimensions survived. It should be noted that one of the thickest examples was overfired and blown, hence its' greater thickness. The dimensions seen on the curved tiles conform to those previously recorded for York.

Both the curved and flanged tiles were smoothed lengthways (14 and 68 examples respectively). There were also two examples from the basal end of the curved tile showing that the tiles were smoothed lengthways first and then widthways at the ends of the tile. Two flanged tiles were smoothed parallel to the flange and then the upper edge, while one was smoothed parallel to the flange with occasional diagonal smoothing lines above. In addition one flanged tile had finger drawn smoothing lines parallel to the flange, while three had a finger groove between the flange, again resultant from smoothing the tile.

The nail holes from the present site (nine curved and five flanged) were 8-14mm in diameter. Thirteen of these holes were circular in shape and one was square, while too little of the remaining hole was preserved to determine the original shape. One of the nail holes on a curved tile was blind (i.e. it did not fully pierce the tile).

Seven of the flanged tiles had been trimmed on the arris or base following removal from the mould.

Occasionally the lower two thirds of such tiles were glazed (glaze was not placed on the upper portion as this would not be visible when laid on a roof). Glazing is known both within York and at other sites. For example, the fireback in the Norman keep of Scarborough castle is made from flanged tiles with a deep green glaze on the upper surface. Five examples of curved and one of flanged tiles at the present site had clear glaze on the upper surface. In the case of one curved tile it was clear from the pattern of dribbles within the glaze that the tile was stood on the shorter end to dry to the leather hard stage, allowing the glaze to dribble down towards the peg hole on the tile.

Some of the curved and flanges tiles exhibited features relating to the firing process. Nine of the curved tiles and 39 of the flanged tiles had reduced cores; one curved tile was possibly a waster as it was slightly distorted along its length, while one had been overfired resulted in it blowing in places to 33mm in thickness.

Two sherds of curved tile and 7 sherds of flanged tile had either mortar or soot on broken surfaces indicative of re-use.

Later medieval roofing tiles of 13-16th century date were flat rectangles which could be fixed to the roof either by a projecting nib which hooked over the laths of the roof (nib tiles) or by a wooden peg or nail (peg tiles). Where the method of fixing is unclear due to the fragmentary nature of the material in question the tiles are termed plain tiles. These tiles were laid in overlapping courses on a roof in a pattern similar to that of 'stretcher bond' in brickwork, i.e. with the joints between individual tiles aligned with the centre of the tiles in the rows above and below.

The peg tiles examined ranged from 10-21mm in thickness (82 examples) and 202mm in breadth (2 examples), but no lengths survived. In two cases there must have been two peg holes originally as the surviving hole was located close to the corner of the tile.

A document from 1327 shows that tiles in York were more expensive than other parts of England, and Salzman (1997, 230) suggested that this may reflect the use of larger than average tiles in York. A statute of 1477 aimed at standardising tile sizes stated that tiles should be 6¼" wide i.e. 160mm (ibid., 231). The two peg tiles at this site with surviving breadths were broader than the size indicated in the statute, which would seem to confirm Salzman's conclusions regarding the size of tile in York.

In the case of York peg-holes were usually square in shape, but circular and diamond shapes are also common. The present site had 63 square peg-holes 16 circular peg-holes and three diamond shaped peg-holes, thereby conforming to the pattern for York as a whole. The peg holes ranged from 8-16mm in size, which is typical for York. The two examples with complete breadths showed that one had the peg hole central to the tile, while the hole was marginally off-centre on the second tile; which has been noted in York before (Garside Neville 1996, 296). Two of the circular peg hole and one of the diamond peg holes were blind (they did not fully pierce the tile). In one case there was an accidental mark around the peg hole from the hole-punch handle.

Smoothing lines parallel to the long edge of the tile were present on 28 examples, while a further 18 examples had smoothing lines parallel to both edges, five had smoothing lines parallel to the

upper edge, two examples had random or diagonal smoothing lines and one had finger drawn smoothing lines parallel to the long edge.

In some cases, following removal from the mould the edges of the tile would be tamped down using the side of the mould, resulting in indented borders (three examples). Grip marks (where the tile had been lifted while wet) were present on three examples, with finger prints visible on a further sherd. Two sherds had a diagonal line drawn while the tile was wet adjacent to the peg-hole; it is thought such marks could be tally marks. One sherd had an accidental indent on the upper surface from the heel of the tiler's hand. A single sherd had knife trimming at the edge. A dog's paw print was present on one sherd, showing that this tile at least had been laid on the ground to dry prior to firing, as opposed to being dried in open sided sheds. A single sherd had splashes of clear glaze on the upper surface; small numbers of glazed sherds are often found in medieval deposits within York. Six of the peg tile sherds had reduced cores, and one sherd was overfired which had blown.

The plain tiles examined ranged from 10-22mm in thickness (286 examples), but no other dimensions survived. Smoothing lines parallel to the edge of the tile were present on 134 plain tile sherds, while a further 15 examples had smoothing lines parallel to both edges, three examples had random smoothing lines, one had lines parallel to the edge then on a diagonal and one example had finger drawn smoothing lines. Two sherds had a finger drawn groove close to the edge of the tile and there were two tiles with accidental grooves on the upper surface caused by grit being dragged over the tile during smoothing. One sherd had an accidental indentation on the upper surface.

Indented borders were present on 9 sherds, grip marks were present on 4 examples, and finger prints were visible on a further sherd. Dog footprints were visible on four sherds (showing that the tiles were laid on the ground to dry prior to firing). Six sherds were glazed with dark green glaze on the upper surface, while 13 sherds had clear glaze; small numbers of glazed sherds are often found in medieval deposits within York. Fifty of the plain tile sherds had reduced cores, and ten sherds were overfired, four of which were blown. Seven sherds were wasters of which one comprised a pot and tile fused together and covered in glaze, one was vitrified, one covered all over with glaze, even on the breaks, and one was covered in some form of industrial residue. Two tiles had kiln scars on the upper surface. A single tile had an iron nail adhering to the surface. Fifteen tiles were reused being covered on the broken surfaces with either soot or mortar, while one sherd had a sooted edge resultant from use in a hearth.

Ridge tiles were used along the apex of the roof and in some cases these had ornamental crests running along the ridge line (crested tiles). In the case of the present site the ridge tiles were 12-24mm thick (89 examples), there was one surviving breadth at 136mm wide, but no lengths survived. There was evidence of smoothing on the upper surface parallel to the ridge line on 36 examples and one was smoothed parallel to the shorter end. Nine of the sherds had clear glaze, two had black-brown glaze and three had green glaze on the upper surface. One sherd had finger prints on the upper surface and two had accidental grooves from when the tiles were smoothed. Thirty of the ridge tiles had reduced cores and one an oxidised core. There were also eight sherds which were over fired, of which seven were blown and one was vitrified. There was also a waster with kiln scars on one surface.

The examples of crested ridge tiles were 14-17mm thick (six examples) but no other dimensions survived. There was evidence of smoothing on the upper surface parallel to the ridge line on three examples, while a fourth had smoothing lines in multiple directions. The various designs of crest included three with an inverse trapezoid design and one with a trapezoid with concave ends in profile and designs of this type have been seen in York before (YAT's computerised database IADB database searched on 19/8/2020). The other crests were too damaged to determine the original design. Two of the crests were made by adding a strip of clay to the top of the tile and one by pinching up clay from the top of the tile. The crests were 70-71mm high (two examples, height includes the thickness of the tiles) and 80-97mm in length. One of the crested ridge tile sherds was glazed with dark green glaze. The pattern within the glaze showed that it had been stacked on the shorter end to dry to the leather hard stage prior to firing.

Medieval floor tiles have knife cut edges, which taper from top to base, so that the tiles could be laid edge to edge with no mortar visible between the tiles (as opposed to the modern preference for clear lines of grouting to be visible between tiles). There are many forms of such tiles, including plain mosaic, inlaid and plain-glazed (for definitions and descriptions of the methods of manufacture see Stopford 2005).

One sherd of inlaid floor tile was present at this site. This was a Hubby-Percy type tile of design 24.33 which have been found elsewhere in York (Stopford 2005, 241). Such tiles date to c. 1500. There was also a line-impressed tile of design UN/16 with cream slip and a clear glaze; this design has previously been recorded at Fountains Abbey and Brimham Hall (*ibid.*, 262). A third decorated floor tile is of a design not present in Stopford (2005). Further research is needed to identify this tile.

There were four sherds of plain glazed floor tile present which range in date from the 14-16th century (Stopford 2005, 213). These ranged in thickness from 20-30mm in thickness, and a single breadth survived which was 120mm. Floors made of such tiles were usually of two colours laid in a chequerboard pattern, the colours being cream and dark green or brown/black. Two of the tiles were coated with a thin cream slip and then a clear glaze giving rise to a cream-yellow colour, while the glaze on the remaining two sherds had completely worn away. Two of the tiles had a steep bevel and two a slight bevel.

Brick of 14-16th century date were made in sanded moulds resulting in a sanded base and edges. The coarseness of the sand used could vary and at the present site there were examples with fine (4 examples), medium (5 examples) and coarse (one example) sand. These bricks at the present site were 27-52mm in thickness (ten examples), 117-129mm in breadth (six examples) and 263-7mm in length (two examples). The range of sizes previously recorded for York is 34-51mm in thickness, 114-142mm in breadth and 247-292mm in length (Betts 1985, 454-7). The bricks at the present site therefore largely conform to the previously recorded measurements, though one is marginally thicker. One brick had rain marks on the upper surface indicating that it had been dried on the ground (as opposed to in a shed) prior to firing. Two of the sherds had burnt stretchers.

Three sherds were of unusual forms, termed as 'other'. The first has either grip marks or an attempt at a pie crust decoration along the edge; the original function of this sherd is unclear. The second sherd had tapering edges and a circular nail hole 10mm in diameter close to one

side. The hole is clearly in the wrong place for a conventional roof tile so the function of this sherd is unclear. The third sherd had a rebated edge, and again the original function is unclear.

The medieval CBM was typical for York as a whole in terms of the forms, fabrics and dimensions present, with the exception of the three sherds termed other and the floor tile with a previously unidentified design.

Post-medieval

The post-medieval CBM accounted for 2.66% of the total volume of CBM from the site comprising four sherds of 16-18th century brick. Bricks of 16-18th century date were made in wetted moulds, a technique termed slop-moulding. The examples at the site were 45-57mm in thickness (four examples), 131mm in breadth (one example), but no lengths survived. Previously recorded examples in York range from 43-63mm thick, 98-143mm wide and 212-238mm long (Betts 1985, 539, 543). The present site therefore conforms to the pattern seen. One of the sherds had a turning mark on the base, a feature commonly seen on post-medieval bricks in York.

5.1.4 SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH

The collection as a whole contained a larger than normal volume of curved and flanged tiles, and given that such tiles are widely thought have been associated with high status buildings the implication is that such a building was located nearby. Approximately 35% of the CBM was recovered from a single context (3052), and this contained an exceptionally large group or curved and flanged tile, with many large sherds present. This suggests that a roof covered which such tiles had been demolished in the area shortly prior to the deposition of this context.

Some further research is recommended into the curved and flange tiles as a whole, the unidentified floor tile and the three sherds termed 'Other'.

If a publication is envisaged for this site, the CBM assessment text could be adapted to form a publication report, though time would be required for some comparative research into the items specified above. If it is intended to publish the site in question a research design could be prepared detailing the following items

- Artefacts containing further analysis in order to meet the project aims
- A method statement for further work
- A detailed list of items for illustration (by photography)
- The cost of the work
- The timetable of the work
- Publication scope and format

5.1.5 RECOMMENDATIONS FOR RETENTION/DISCARD

For excavations within York, YAT routinely adopts a record and discard policy, whereby only a representative selection of CBM from each site is retained. This typically means that around 80% of the volume of CBM from any given site is discarded. In the case of this site 23% of the CBM was retained.

Table 7 CBM by form in relation to period

Period	Form	No. of sherds	Weight in grams	% of total weight
Roman	Bessalis	1	100	0.06
	Brick	57	11415	6.60
	Flue	6	1035	0.60
	Imbrex	21	2645	1.53
	Tegula	23	4380	2.53
	Tessera	1	10	0.01
Medieval	Brick	10	13860	8.01
	Curved	36	5530	3.20
	Crested	6	1350	0.78
	Decorated floor	3	950	0.55
	Flange	130	35810	20.69
	Other	3	1575	0.91
	Peg	83	21305	12.31
	Plain	298	53834	31.1
	Plain glazed floor	4	1000	0.58
	Ridge	99	13675	7.90
Post-medieval	Brick	4	4605	2.66

Table 8 CBM in relation to context

Context	Dating	Forms present
3000	14-16th	Box flue, Decorated floor, Post-medieval brick, Peg, Plain glazed floor Tegula
3001	17th+?	Paver?, Peg, Plain
3001	16-18th	Flange, Peg, Plain, Post-medieval brick
3012	13-16th	Plain
3013	13-16th	Plain
3017	16-18th	Post-medieval brick
3023	16-18th	Curved, Medieval brick Post-medieval brick, Peg, Plain
3025	14-16th	Decorated floor, Flange, Imbrex, Peg, Plain, Ridge, Tegula
3026	13-16th	Flange, Plain, Roman brick, Ridge, Stone peg?
3027	13-16th	Flange, Peg, Plain, Ridge, Tegula
3029	13-16th	Curved, Flange, Peg, Plain, Ridge
3031	13-16th	Peg, Plain, Roman brick, Ridge, Tegula
3032	13-16th	Roman brick, Ridge, Ridge?, Stone peg?
3033	13-16th	Peg, Plain
3037	13-16th	Ridge
3038	13-16th	Crested, Flange, Peg, Ridge
3043	14-16th	Peg, Plain glazed floor, Plain, Ridge
3045	11-13th	Flange
3047	13-16th	Flange, Plain
3048	14-16th	Box flue, Curved?, Flange, Imbrex, Peg, Plain glazed floor, plain, Roman brick, Ridge, Tegula
3050	13-16th	Flange, Imbrex, Plain, Stone peg?, Tegula
3052	13-16th	Box flue, Curved, Curved?, Ridge, Flange, Flange?, Imbrex, other, Peg, Plain, Roman brick, Tegula
3053	1-4th	Box flue, Imbrex, Roman brick
3055	13-16th	Crested, Flange, Peg, Plain, Roman brick, Ridge, Stone peg?, Tegula
3056	13-16th	Curved, Curved?, Flange, Peg, Ridge
3057	13-16th	Flange, Imbrex, Plain, Ridge, Tegula
3058	13-16th	Curved, Flange, Peg, Plain, Plain?, Ridge
3060	13-16th	Flange, Peg, Plain
3062	14-16th	Crested, Flange, Medieval brick, Peg, Plain, Ridge, Stone peg?

Context	Dating	Forms present
3064	13-16th	Plain, Ridge
3068	13-16th	Plain
3071	1-4th	Roman brick
3072	13-16th	Imbrex, Plain
3076	13-16th	Ridge, Tegula
3078	1-4th	Imbrex, Roman brick, Tegula
3080	13-16th	Flange, Peg, Plain, Roman brick, Ridge
3081	13-16th	Peg
3084	13-16th	Peg, Plain
3092	1-4th	Roman brick
3094	11-13th	Curved?, Flange, Imbrex, Roman brick, Ridge, Stone peg?
3095	1-4th	Roman brick, Tegula
3096	13-16th	Peg, Plain
3100	1-4th	Roman brick, Tegula
3104	13-16th	Peg, Ridge
3106	13-16th	Flange, Plain, Ridge
3107	13-16th	Medieval brick, Peg, Plain
3110	16-18th or Roman with 1 intrusive sherd	Box flue, Imbrex, Post-medieval brick, Tessera
3112	1-4th	Imbrex, Roman brick
3114	14-16th	Medieval brick
3116	1-4th	Imbrex, Tessera
3119	13-16th	Plain, Stone peg?
3123	13-16th	Peg, Plain
3126	13-16th	Plain, Roman brick, Stone peg?
3128	1-4th?	Stone peg?
3131	13-16th	Curved. Curved?, Flange, Imbrex, Plain, Ridge
3132	1-4th	Bessalis, Imbrex, Roman brick, Tegula
3140	13-16th	Plain, Ridge
3142	13-16th	Other, Plain, Ridge, Stone peg?
3144	13-16th	Plain, Roman brick
3145	13-16th	Peg, Plain, Roman brick, Tegula

Context	Dating	Forms present
3157	13-16th	Plain
4015	13-16th	Peg
6019	111-e13th	Curved?, Flange
7005	14-16th	Medieval brick, Plain
7007	14-16th	Medieval brick
7008	1-4th	Tegula
7009	1-4th	Roman brick
7011	1-4th	Roman brick
7012	1-4th	Tegula

5.2 The stone building materials: Stone roofing and flooring

5.2.1 INTRODUCTION

The stone building materials included fragments that probably originated from stone roofing flags, tesserae, architectural fragments and a number of smaller stone items which did not merit recording as architectural fragments.

Within this text the term 'flag' is used for stone roofing and flooring, thereby avoiding any confusion created by the use of the word tile, which could imply the item is ceramic rather than stone

A total of 1.37kg of stone roofing and flooring fragments were examined (25 fragments), which were Roman date. The forms present included tesserae and stone fragments which probably originated from stone roofing flags originally. The forms present in relation to context are summarised in Table 9.

5.2.2 METHODOLOGY

The stone roof and floor flags are recorded to a standard YAT methodology (McComish 2020b) whereby each fragment is individually recorded on a pro-forma sheet which details the project code, the context number, the weight in grams, the stone type, the surviving complete dimensions (length, width, thickness) and any other relevant information (e.g. peg-hole size). A question mark is placed after the form name if the identification is uncertain, for example 'stone peg?'. It should be noted that the term 'stone peg' is used for all roofing flags of limestone and sandstone, while the term 'slate' is only used for roofing items of metamorphic rock. The data is on an excel table stored at YAT under the project code 6019.

5.2.3 RESULTS

Tesserae were used Roman mosaic flooring. Fourteen Roman tesserae were recovered from the present site, which ranged from 15 x 14 x 13mm to 37 x 28 x 22mm in size, suggesting that they would have been from tessellated pavements originally (Adam 2005, 233-4). The tesserae at the site items could have originated from underlying Roman structures, or could have been dumped at the site from elsewhere.

Four of the tesserae were of micaceous sandstone, one was oolitic limestone and nine were of magnesian limestone. Tesserae in each of the stone types are known from other excavations in York. Micaceous sandstone was sourced from Elland near Leeds, magnesian limestone was imported to York from the Knaresborough/Tadcaster/Wetherby area, while oolitic limestone was imported into Roman York from the Malton area (Gaunt and Buckland 2002, 135-6, 141). These stones have all been used for tesserae elsewhere in York.

There were eleven fragments of micaceous sandstone up to 17mm thick which probably originated from roof flags originally. Micaceous sandstone roof flags were widely used in Roman York, being sourced from the Elland area near Leeds (Buckland 1976, 36). The use of this stone for roofing became increasingly common in York from the late 2nd century onwards (McComish 2012, 256-8), and some idea of the scale of production is indicated by the widespread nature of

such finds, with roofing flags of this type being recovered from Roman sites at Rudston and Harpham in East Yorkshire, and Hibaldstow in North Lincolnshire (Buckland 1978, 41).

Table 9 Stone flags and tesserae by context

Context	Dating
3026	Stone flag?
3032	Stone flag?
3050	Stone flag?
3052	Stone flag?
3055	Stone flag?
3062	Stone flag?
3094	Stone flag?
3110	Tesserae
3116	Tesserae
3118	Stone flag?
3119	Stone flag?
3126	Stone flag?
3128	Stone flag?
3142	Stone flag?

5.3 The stone building materials: Architectural fragments

5.3.1 INTRODUCTION

Four architectural fragments (AFs) were assessed. The various AFs are catalogued in Table 4 below. These were numbered AFs 3-6 to follow on from earlier examples from the site recovered and reported on in 2018.

5.3.2 METHODOLOGY

The collection was recorded to a standard York Archaeological Trust (YAT) methodology (McComish 2020b) whereby the fragments are numbered in a sequence for the site, starting at 3. The numbered AFs are recorded on individual pro-forma record sheets which detail the project code, the context number, AF number, the stone type, a simple keyword identifying the form (such as jamb or voussoir), the surviving dimensions (height, width and thickness), a free text description, a sketch (with any relevant measurements noted on the sketch) and any other relevant information. Rubbings of tool marks or 1:1 tracings of the profile are taken where necessary. The data is transferred onto YATs internal computer system (which is backed up daily to prevent data loss) under the project code 6019.

5.3.3 RESULTS

The AFs comprised three mullions dating to the period from 1350 to the Dissolution of the second quarter of the mid-16th century, together with a single fragment which was too small to identify but had claw tooling post-dating c. 1200 (Stocker 1999, 347). A catalogue of the AFs is given in Table 10 below.

Table 10 Architectural fragment catalogue

Af no.	Context	Dating	Description
3	3062	1200+	Small fragment of magnesian limestone, part of one surface (F1) present with claw tooling, 5 teeth per 10mm.
4	3000	1350+	Magnesian limestone mullion. Two faces present (F1-2) representing the sides of the block, top and basal ends broken off. Each face has internal and external slightly hollow curves with a central slot for the glazing. Drag tooling on all surfaces.
5	3043	1350+	Magnesian limestone mullion. Part of 3 faces (F1-3) surviving, F1 is base or top, F2-3 the sides. Very fine claw tooling on F2-3 with 6 teeth per 10mm, coarser claw tooling on F1 with 3 teeth per 10mm. Traces of a socket to house the glazing on F2
6	3043	1350+	Magnesian limestone mullion, 2 faces (F1-2) present all other surfaces broken off. Each face is a side of the block with a fillet and hollow curve. No tooling survives

5.4 The stone building materials: other building stone

5.4.1 INTRODUCTION

There was a group of 13 small fragments of stone which were too small to merit AF numbers; these are detailed below. Collectively they weighed 1.86kg, the largest single fragment being 525g in weight. The data is summarised on Table 11 below.

5.4.2 Methodology

This collection was recorded a pro-forma sheet detailing the project code, the context number, form, the weight in grams, the stone type, the surviving dimensions and any other relevant information (details of surviving surfaces etc.). This was types into an excel table which is stored on the YAT computer system under project code 6019.

Only the retained fragments (one of tufa and one of oolitic limestone) were added to the YAT's computerised database IADB as they were the only stone items to require a finds number for artefact management purposes.

5.4.3 Results

The Romans used three principal buildings stones in York, namely coarse-grained sandstone, largely sourced from West Yorkshire (RCHMY 1981, xcv), oolitic limestone from the Whitwell/Malton area north-east of York and magnesian limestone from the Wetherby/Tadcaster/Knaresborough area (Gaunt and Buckland 2002, 135, 138 and 141. In addition, Elland flag, a micaceous sandstone was widely used for roof and floor flags (Gaunt and Buckland 2002, 135). Tufa was also used by the Romans for vaulting. On the basis of their geology, the sandstone, oolitic limestone, micaceous sandstone and tufa fragments below are of Roman date.

Magnesian limestone was widely used in both the Roman and medieval periods, the geology of the items in question is therefore of little use in determining the original date of the piece, however the two magnesian limestone fragments could be dated as medieval on the basis of their form as, one having claw tooling present which dates to sometime after 1200 (Stocker 1999, 347), while the second probably represents a fragment of a moulded block of medieval date.

Table 11 Building stone catalogue

Context	Stone type	Description
3025	FGSS (S7)	No original surfaces
3025	OOLS (S1)	Sliver of building stone, no original surfaces
3025	OOLS (S1)	Sliver of building stone, no original surfaces
3043	FGSS (S7)	Sliver of building stone, no original surfaces
3055	CGSS (S12)	Vey battered original form impossible to determine
3062	MGLS (S2)	Magnesian limestone fragment, one face survives with very faint claw tooling
3082	Tufa	Small irregular fragment

Context	Stone type	Description
3082	OOLS (S1)	Irregular fragment

5.5 The stone building materials: Summary and recommendations for further work

The collection of AFs was of very poor quality overall, comprising small badly broken items. The original source these AFs is unknown, but could have been buildings relating to the Guildhall or a nearby church and as such can contribute little to the understanding of any specific building. None of the fragments of building stone or roofing flags were of particular interest, being small badly broken fragments. No further work is therefore recommended. None of the material was worthy of museum display.

If a publication is envisaged, the AF assessment text could be adapted to form a publication report. Nothing is worthy of illustration. None of the AFs offer any potential for museum display.

5.6 The stone building materials: Recommendations for retention/discard

For excavations with the City of York, YAT routinely adopts a record and discard policy, whereby wall facing stones are recorded and discarded, as are any AFs that are non-diagnostic, or AFs which are too badly preserved to merit retention. In the case of this site AFs all of the Afs and building stone fragments were discarded as they were too badly preserved to merit retention.

5.7 Mortar, plaster and painted plaster

5.7.1 INTRODUCTION

This assessment relates to the mortar, plaster and painted plaster recovered from archaeological works at The Guildhall, York (YAT project 6019), which is summarised by context on Table 12. Overall there was 40.792kg of material (637 fragments) which could be split into four broad categories:

- 18.759kg (285 fragments) of mortar
- 16.933kg (315 fragments) with a combination of mortar backing and a thin layer of plaster on the original elevation surface
- 5.05kg (36 fragments) with a mortar backing and a thin layer of painted plaster on the original elevation surface
- a single fragment of plaster weighing 50g

Any given mortar could have examples of fragments with no plaster, fragments with plaster and fragments with plaster and paint; they were clearly therefore better considered as a whole rather than being split into the categories of mortar, mortar and plaster, mortar and plaster and paint, or plaster.

5.7.2 METHODOLOGY

The individual fragments were weighed and details entered on a pro-forma sheet detailing the project code, the context number, the find number, the material type, the weight in grams, the dimensions, the original thickness where this survived, any other relevant information (details of surviving surfaces etc.) in a comments section and information as to whether the fragment was retained or discarded.

Traditionally within YAT mortar and plaster are recorded as bulk finds (BFs) while painted plaster is recorded as small finds (SFs). Any given BF or SF number can contain multiple fragments. In the case of this site there are a few SFs which include both painted plaster and plain white plaster which is clearly related (this was to avoid bagging related items in two separate places; the plain plaster as a BF and the painted plaster as a SF). Three items of moulded mortar/plaster were collectively bagged as BF309.

The recorded data was typed into a Microsoft Excel table, which is stored in the YAT intranet under the project code 6019. A summary of the material from each BF and SF number was also placed on the YAT database (IADB) under the project code 6019.

5.7.3 RESULTS

The mortar and plaster from the site can be divided into a number of types which are listed below, together with details of the associated BF and Sf numbers.

Type 1 Coarse grained mortar

Collectively these fragments weighed 17.681kg (267 fragments). These comprised very coarse grained off-white coloured mortar with very frequent coarse inclusion. The inclusions comprise

pebbles up to 9x4mm in size and rounded quartz grains up to 4x3mm in size. None of these items had associated plaster on the outer surface.

These fragments came from contexts 3055 (3 fragments collectively weighing 425g, recorded as BF150), 3070 (1 fragment weighing 75g, recorded as BF152) and 3082 (263 fragments collectively weighing 171.81g, recorded as BF302).

In 5 cases no original surfaces were present, so the original thickness of the mortar is unknown. The largest such fragment was 57mm thick. In 13 cases only one original surface was present so the original thickness of the mortar is unknown.

In most cases (213 examples) two opposing original flat surfaces were present, with the mortar being between 9-45mm in thickness. The majority ranged from 9-25mm in thickness with just 21 examples being thicker, the thickest two fragments being 41mm and 45mm thick respectively.

Seven of the fragments had two opposing surfaces both of which were smooth, two of which had ridges on the reverse surface where the mortar had adhered into the cracks between the brickwork/masonry of the underlying structure. In one case that these ridges were 28mm apart suggesting that the mortar had adhered to a brick (masonry blocks would be thicker).

Twenty-five of the Type 1 fragments had one smooth exterior surface and there were distinct ridges on the opposing reverse surface giving an almost corrugated appearance. It was difficult to measure where the ridges ended and the hollows began, but the ridges were all in the region of 7-10mm wide and the hollows c. 7-11mm wide. Most of these consisted of parallel linear ridges, but in one case the ridges were in a dog-leg shape, while one had an elaborate pattern resembling a fish-spine, with a central ridge then parallel ridges to either side on opposing diagonals.

A single fragment had both the corrugated reverse and ridges from the underlying masonry visible.

Two of the Type 1 mortar fragments had a roughly L shaped cross-sectional shape, with two original elevation surfaces present at right angles to one another, indicating that they originally covered the corner of a wall. A single fragment was cuboid in shape, with four original exterior surfaces, though both ends were broken off. This item was 30 x 25mm in cross-section and 70mm long.

Type 2 Coarse grained mortar with plaster on the original exterior surface

The Type 2 fragments collectively weighed 13.513kg (284 fragments). These fragments comprise a backing of coarse lime mortar with pebble inclusions up to 9x2mm in size and coarse grains of rounded quartz up to 4x2mm in size. This is similar to the Type 1 mortar, but slightly less coarse with frequent as opposed to very frequent inclusions. In addition the mortar is slightly lighter in colour than Type 1. The exterior smooth surface of each Type 2 fragment is coated with plain white plaster up to 1.5mm thick. In nine cases the plaster had a streaky appearance.

These fragments came from contexts 3026 (7 fragments collectively weighing 500g, recorded as BF310), 3082 (272 fragments collectively weighing 12.843kg, recorded as BF303) and 3103 (5 fragments collectively weighing 170g, recorded as BF312).

In 37 cases only one original surface was present so the original thickness of the mortar is unknown. One fragment had a smooth exterior surface and very irregular back.

In two cases one surface was smooth with the opposing surface being irregular. In most cases (189 examples) two opposing original flat surfaces were present, with the mortar being between 9-23mm in thickness.

There were 193 fragments with had two opposing surfaces both of which were smooth, five of these had ridges on the reverse surfaces where the mortar had adhered into the cracks between the brickwork/masonry of the underlying structure. One of these fragments had an irregular ridge along one edge of the plaster surface.

Forty-five of the Type 1 fragments had a smooth exterior surface and there were distinct ridges on the reverse surface giving an almost corrugated appearance. It was difficult to measure where the ridges ended and the hollows began, but the ridges were all in the region of 7-10mm wide and the hollows c. 7-11mm wide. Most of these consisted of parallel linear ridges, but in one case there was herringbone pattern.

Six fragments had both a corrugated reverse surface and ridges from the underlying masonry visible.

Two of the fragments had faint grooves on the surface, possibly keying lines, in one case these were on the plaster surface, while the second had the grooves on the mortar surface.

Type 3 The same mortar as Type 2 but without any surviving plaster

The Type 3 fragments collectively weighed 1.078kg (18 fragments), which were recorded as BF304. The mortar was identical to that of Type 2, but these fragments lacked any surviving plaster. These fragments all came from context 3982 and were recorded as BF304. Sixteen of the fragments had two opposing flat surfaces, while two fragments each had a smooth exterior surface and while the reverse surface had ridges giving a corrugated appearance. The mortar ranged from 11-25mm in thickness.

Type 4 Fragments with two distinct layers backing mortar and plaster

The Type 4 fragments collectively weighed 1.335kg (6 fragments), all of which were from context 3082 and they were recorded as BF305. In each case there was a series of superimposed layers of mortar and plaster.

Two of the fragments had a basal layer of mortar similar in composition to the Type 1 mortar described above, then a layer of plaster, above which was a layer of mortar/plaster similar in composition to the Type 2 items described above. The upper layer of mortar/plaster ranged from 9-10mm thick.

Four of the fragments had a basal layer of mortar similar in composition to the Type 1 mortar described above, with a layer of mortar/plaster above similar in composition to the Type 2 items described above. The upper layer of mortar/plaster ranged from 10-22mm thick. In two cases the upper layer of mortar/plaster had a corrugated back, one of which had corrugations in a herring one pattern.

These items indicate that the Type 1 mortar (with or without associated plaster) was earlier than the Type 2 mortar/plaster which represented a replacement surface.

Type 5 Fragments of mortar and plaster with a distinct backing

There were two fragments from context 3082 collectively weighing 310g (recorded as BF306) which had a mortar backing similar to the Type 2 mortar with a thin skim of plaster on the top. Adhering to the back of the mortar was a light brown hardened substance, either earth or daub.

Type 6 Plaster

There was a single fragment of plaster from context 3082 which had one smooth surface but all the other surfaces were highly irregular. This measured 75 x 55 x 34mm in size and was recorded as BF307.

Type 7 Painted plaster with Type 2 mortar backing

There were 15 fragments collectively weighing 2.095kg. One fragment was from context 3026 (recorded as SF136), one from context 3037 (recorded as SF131) and the remaining 13 were from context 3082 (recorded as SF137).

In each case the backing mortar and plaster was similar to Type 2, with a layer of white plaster above, the only difference being that traces of paint survived above the plaster on all of these fragments. In one case a tiny fragment of Type 1 mortar adhered to the back of the fragment.

Nine of the fragments had a flat back while six had a corrugated back surface which in two cases was in a herringbone pattern. There were two colours of paint present. A single fragment had a thin black stripe 4.8mm wide and two smaller areas of black paint, possibly both originally stripes, at 90 degrees to the first stripe. The remaining fragments all had red paint. In two cases there was a broad strip in excess of 45mm wide, while two other fragments each had an area of red paint in excess of 20mm wide, one had a stripe of red paint in excess of 15mm wide and one fragment had a stripe in excess of 9mm wide with tiny splashes of red paint adjacent to the stripe. Seven fragments had small patches of red paint. A single fragment had what seemed to be the remains of a red stripe in excess of 5mm wide and a splash of red paint.

Type 8 Sandy mortar with painted plaster

There were two fragments of Type 8 collectively weighing 55g. These had sandy mortar backing with a flat surface above which was a 6mm thick layer of very sandy pink mortar topped by white plaster up to 0.5mm thick, one of which was decorated with patchy red paint. These were from contexts 3043 (BF308) and 3057 (SF132).

Type 9 Sandy mortar with painted plaster

There were nine Type 9 fragments collectively weighing 1145g, eight were from context 3103 (SF133) and one from context 3057 (BF311).

These had a thick backing mortar of sandy coarse light pink with occasional pebble inclusions up to 7x3mm in size and frequent smaller pebbles and rounded quartz. This was topped by a layer of off white plaster 4.5mm thick. Four of the fragments had paint above the plaster, which in two cases was grey and two cases were ochre in colour. A single fragment with this mortar backing was not painted and was not retained (Context 3057 BF311). Where it survived, all of these fragments had a flat back.

Type 10 Two superimposed layers of sandy mortar/painted plaster

The 15 Type 10 fragments collectively weighed 2450g and were recovered from context 3103 (SF134). These were clearly related to those of Type 9, each having a layer of Type 9 mortar/plaster with a second layer of mortar typically 9mm thick above topped by a 0.5mm thick layer of plaster and painted decoration with ochre coloured paint as the background colour. The second layer of mortar was of a very similar composition to that of Type 9, i.e. very sandy. In all cases the backs were either flat or slightly irregular.

Six fragments had ochre paint. In one case there was red paint over the whole surface and one fragment had a black stripe 23mm wide. Three fragments had a thin red stripe 4mm wide, while one had a stripe of red paint 4mm wide parallel to and 83mm apart from a broader stripe of red in excess of 17mm wide, and one fragment had a stripe of red paint in excess of 51mm wide with a stripe of white paint 5mm wide directly above the edge of the red stripe. There was one fragment with two small areas of bright green probably representing leaf designs, and a second example had a stripe 4mm wide and a small patch of green possibly representing a leaf design.

Type 11

There were 15 Type 11 fragments collectively weighing 750g, and these were all from context 3103 (SF135) with the exception of a single fragment from context 3000 (SF117). These had a slightly pink mortar backing with frequent rounded quartz inclusions and occasional pebble inclusions up to 2x2mm in size. This was topped with a 0.4mm thick layer of creamy white mortar which in some cases was painted. The back of these fragments was flat or slightly irregular.

Two fragments were painted grey, one was painted red, one had a small red stripe 3mm wide, and one a tiny area of red paint. The remaining item had a green leaf design which was beneath a trellis design comprising a border strip of red 4mm wide to one side of which was a fret pattern of stripes 2-4mm wide. Above each junction of a stripe was a small black dot.

Moulded mortar items

There were three items where the mortar had been deliberately shaped; these were all from context 3013, and they were collectively numbered BF309. The first fragment weighing 100g had three original surfaces present, one of which was rebated. The rebated surface was coated with a layer of plaster 3mm thick. The second item weighed 10g and had part of hollow curve on the one surviving surface with a thin skin of plaster and possibly grey paint above.

The third item weighed 220g and had two superimposed layers of plaster 1.3 and 6mm thick above which was a layer of white mortar 25mm thick containing frequent small rounded quartz pebbles and occasional larger pebbles up to 6.5x2mm in size, above which was a final layer of plaster 3mm thick. This item had a chamfer close to one edge.

Table 12 Mortar, plaster and painted plaster by context

Context	Types present	Weight in grams	No of fragments
3000	11	10	1
3026	2, 7	825	8
3037	7	125	1
3043	8	10	1

Context	Types present	Weight in grams	No of fragments
3055	1	425	3
3057	8, 9	50	2
3070	1	75	1
3082	1, 2, 3, 4, 5, 6, 7, moulded	34442	575
3103	2, 9, 10, 11, moulded	4830	45

5.7.4 DISCUSSION OF MORTAR/PLASTER/PAINTED PLASTER TYPES

The only fragment of plaster without any form of mortar attached was Type 6. Three moulded fragments of moulded mortar/plaster were also present. The remaining mortar/plaster/painted plaster types can be placed in three groups on the basis of the composition of the mortar.

Group 1

This was by far the largest group present in terms of volume with lime based mortars. The reverse surfaces of these items could be flat or have a corrugated appearance, and in some cases ridges were present where the plaster had adhered to the underlying structure.

The coarsest mortar was Type 1 which lacked plaster on the surface.

A second type of slightly finer mortar was used in several different situations

- on its own coated with plain plaster (Type 2)
- on its own with no plaster coating (Type 3)
- superimposed above the Type 1 mortar (Type 4)
- on its own above an earth or daub surface (Type 5)
- on its own coated with painted plaster (Type 7)

Types 2 and 7 may represent part of a single scheme, with paint surviving on only a few fragments. The Type 4 items clearly show that the finer mortar was of a later date than the Type 1 mortar.

Group 2

Types 8-10 had sandy mortar that was clearly different in composition to the mortars of Group 1. The reverse surfaces were flat. It is clear that the earliest surface within this group was Type 9 which was replaced by a second surface (Type 10). Type 8 could be part of either a Type 9 surface or be part of the uppermost Type 10 surface.

Group 3

Type 11 was distinctive having an elaborate painted trellis design together with painted striped decoration.

5.7.5 MORTAR/PLASTER/PAINTED PLASTER IN RELATION TO CONTEXT

The pottery report was not available at the time of writing, so the dating below relates to the CBM.

The mortar/plaster/painted plaster in contexts 3000, 3026, 2037, 3043, 3055 and 3057 was clearly residual as it occurred in contexts which also contained medieval CBM. There was no CBM from contexts 3070, 3082 and 3103 to assist with the overall dating. The decoration of the plaster is, however, suggestive of a Roman date for these contexts.

5.7.6 *SUMMARY AND RECOMMENDATIONS FOR FURTHER WORK*

The collection of mortar/plaster/painted plaster clearly offers potential for further research. It is recommended that a specialist in Roman plaster (e.g. Dr. I. Betts) be consulted with regards to both the designs present on the painted fragments and the corrugated appearance of the reverse of some of these items.

If a publication is envisaged, this assessment text could be adapted to form a publication report. Nothing is worthy of illustration. Some of the painted fragments offer potential for museum display.

5.7.7 *RECOMMENDATIONS FOR RETENTION/DISCARD*

Detailed discussions were held between J. McComish and M. Felter (YAT conservation department) with regards to retention. It was agreed to keep a selection of each type of undecorated mortar and mortar with plain plaster adhering, as this material has limited potential for further research. In contrast all of the painted plaster was retained as this offered the greatest potential for further research. A total of 15.580kg was retained, representing 38% of the total volume.

5.8 Other building materials

5.8.1 INTRODUCTION

This assessment relates to a variety of building materials recovered from the archaeological excavation at The Guildhall, York, (York Archaeological Trust project code 6019), including daub, mortar and *opus signinum*.

5.8.2 METHODOLOGY

This collection was recorded as Bulk Finds by context. As each Bulk Find can contain multiple fragments, the individual fragments were weighed and details entered on a pro-forma sheet detailing the project code, the context number, material type, the weight in grams, the dimensions and any other relevant information (details of surviving surfaces etc.). This data was typed into a Microsoft Excel table then transferred into the YAT database (IADB) under the relevant project code.

5.8.3 RESULTS

Daub

A single fragment of daub was present in context 3052, which weighed 100g. The impression of a wattle 12mm in diameter was present. This context contained medieval building material (notably CBM) but the daub could represent either residual Roman or medieval material.

Opus signinum

Opus signinum is a Roman building material comprising a mixture of mortar and crushed ceramics. This material had hydraulic properties and was used in structures requiring waterproofing such as coverings of cistern and in the suspended floors of baths; though it could also be used in ordinary floors (Malacrino 2010, 71-2).

There were 12 small fragments of *opus signinum* collectively weighing 313g. These came from contexts 3094, 3110 (three fragments), 3116 (5 fragments) and 3142. Two different colours were present with two fragments being very dark pink in colour and the remainder being pale pink. Only one (of the dark pink fragments) had any surviving vestige of an original exterior surface, while the remainder were so badly broken that none of the original smoothed upper surface survived.

5.8.4 SUMMARY AND RECOMMENDATIONS FOR FURTHER WORK

None of these fragments merits further research due to their small size and fragmentary nature. They could be briefly summarised in any publication relating to the site. None were worthy of either illustration or museum display.

5.8.5 RETENTION/DISCARD

None of this material was retained as it was too badly fragmented.

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APPENDIX 6 – HUMAN BONE BY GIULIA GALLIO

1 INTRODUCTION

Excavations on the City of York Guildhall site have produced a small assemblage of disarticulated human bone. 483 fragments of human bone were hand collected from a total of eight contexts, although three of these only yielded a single skeletal element each. The assemblage was rapidly assessed, focussing primarily on determining the minimum number of individuals present and the occurrence of pathological lesions.

2 METHODOLOGY

The human remains were examined and recorded following the guidelines published by McKinley (2004). All the bones were individually recorded in a table, and the part of the bone element present was specified when possible (see Table 13 below). The preservation and degree of completeness of each bone was also recorded, as well as any pathologies and an estimation of the age and sex of the individual if diagnostic elements were present (Brooks & Suchey 1990; Buikstra & Ubelaker 1994; Lovejoy et al. 1985). Small bone fragments (under 10mm) were recorded as unidentifiable and counted. Where possible, attempts were made to join fragments of the same bone.

3 DISCUSSION

The results are outlined in table 13.

Surface preservation of the bone cortex was recorded according to the system proposed by McKinley (2004). More than 50% of the bone elements exhibited a very good or good state of preservation despite the relatively high degree of fragmentation throughout the assemblage. Many of the skeletal elements present, especially the long bones, were less than 50% complete and had suffered breakages due to disturbances in the burial environment.

The 'minimum number of individuals' (MNI) present within the assemblage was calculated by counting all long bone ends and large skeletal elements recovered, with the highest number obtained taken as the MNI. A minimum of five adult individuals were identified based on the presence of five right petrous bones and mastoid processes.

The assemblage also included a very small amount of non-adult bones, which amounted to less than 2% of the total number of skeletal elements. At least three non-adult age categories are represented: one adolescent (13-17 years; based on the presence of an unfused femoral head. Schaefer et al. 2009), one older juvenile (7-12 years; based on the presence of a right iliac blade) and one young juvenile (1-2 years; based on the presence of one metacarpal shaft).

Although in a few occasions it was possible to join fragments of the same bone, the fragmentary nature of many of the skeletal elements means that it was not possible to assign different skeletal elements to a single individual with any degree of confidence. The only exception was a set of seven well preserved vertebrae (six thoracic and one lumbar) found in context 3025, which articulated with one another and may originate from a burial that was disturbed while

decomposition was still in progress. Context 3025 yielded the majority of the human bone recovered during the excavation and contained a minimum of four out of the five adult individuals present, as indicated by the presence of four left mastoid processes of the temporal bone.

A small number of skeletal elements included landmarks useful for assessing the age at death and sex of an individual. Approximate age at death was recorded for four mandibles and four pelvis fragments, based on dental wear and the appearance of two auricular surfaces and two pubic symphyses. Twenty-two bones included landmarks that are commonly used to determine the sex of an individual (Buikstra & Ubelaker 1994). Based on these skeletal elements the assemblage appears to include both male and female individuals. The most common age category recorded during age estimation was older middle adult (36-45 years). It must be noted however that these results come from a very small subset of a small disarticulated assemblage and are therefore unlikely to accurately reflect the demographic profile of the original cemetery population (McKinley 2004).

No unusual pathologies were recorded in the assemblage. The most common pathology observed was degenerative joint disease (DJD), which manifests as bone formation and porosity around the articular surfaces of the joints and is caused by physical stress and advancing age. As is common in skeletal populations, the vertebrae are the most common affected site in the Guildhall assemblage. One thoracic and one lumbar vertebra (possibly belonging to the same individual) were affected by crush fractures, which are often caused by a fall (Waldron 2009). One right scapula showed signs of DJD and lipping on the coracoid process, suggesting the individual may have suffered from soft tissue trauma to one or more of the shoulder ligaments.

Table 13 Disarticulated human bone by context

Context	Bone	Bone Element	Side	% of Bone	Surface Preservation	No. of Fragments	Age	Sex	Other
3000	Tibia	Complete	R	90	1	2	A	-	Fragments match. DJD on proximal fibular facet, lateral condyle.
3000	Femur	Distal end and shaft	R	40	1	1	A	-	Doesn't match other femur fragments
3000	Femur	Proximal 1/3 shaft	L	30	1	1	A	-	Doesn't match other femur fragments
3000	Femur	Shaft	L	35	2	1	A	-	Doesn't match other

									femur fragments
3000	Femur	Head	L?	10	2	1	ADO	-	Unfused epiphysis. Exposed area of trabecular bone with smooth edges.
3000	L vertebra	Body	-	40	1	1	A	-	
3000	Mandible	Body	L	40	1	1	OMA MA	?F	P1, P2 present. PD
3000	Mandibular tooth	Canine, almost complete	R	95	1	1	A	-	
3000	Parietal	Occipital angle	L	40	3-4	1	A	-	3 lambdoid ossicles in suture
3000	Occipital	Lambdoid suture, transverse sulcus	-	10	1	1	A	-	1 lambdoid ossicle
3000	Sphenoid ?	Body?	-	10	2	1	A	-	
3000	Humerus	Complete	R	99	1	1	A	-	Osteophytes medial and lateral epicondyles
3000	Humerus	Head and proximal ½ shaft	R	45	2	1	A	-	
3000	Humerus	Head	R	5	1	1	A	-	
3000	Femur	Proximal 1/2 shaft	R	35	1	2	A	-	
3000	Radius	Head and proximal 1/3 shaft	R	20	1	1	A	-	
3000	Radius	Central and distal shaft	L	40	2	1	A	-	

3000	Ribs x2	Shafts	L	Both 10	1	2	A	-	Ossifying new bone on largest fragment
3000	Ribs x2	Shafts	-	5 and 10	2	2	A	-	
3000	Pelvis	Ilium?	-	5	1	1	A	-	
3000	MT2	Shaft, proximal end	R	90	1	1	A	-	Pitting on medial surface, proximal end
3000	Unidentif ied fragment s	2 shafts, 1 unidentified	-	-	1	3	A	-	
3025	Mandible	Anterior body	R (mostl y)	30	2	1	A	F	No teeth present
3025	Mandible	Almost complete	-	99	3	3	OMA	F	All teeth present except R I1 and L M3 (lost PM). PD, calculus (all teeth).
3025	Mandibul ar tooth	Canine	R	99	1	1	A	-	Matches R canine alveolus in mandible above. Calculus
3025	Mandible	Body, angles, L ramus	-	85	2	3	MA	M	8 teeth present, 2 lost AM. Severe PD, calculus, 1 caries (R M3).
3025	Mandibul ar tooth	Canine	R	99	3	1	A	-	Matches R canine alveolus in M mandible above. Calculus,

									moderate wear.
3025	Mandibular tooth	Second Premolar	R	99	2	1	A	-	Matches R P2 alveolus in M mandible above. Calculus, moderate wear.
3025	Maxilla	Alveolar process	R	30	2	1	?OM A MA	-	1 tooth present (C). Severe occlusal wear, PD, calculus, 1 abscess (P1)
3025	Maxillary tooth	Lateral incisor	R	99	2	1	A	-	Matches alveolus in maxilla above. Severe wear, calculus.
3025	Maxillary tooth	First premolar	R	99	1	1	A	-	Matches P1 alveolus in maxilla above. Severe wear, calculus, abscess.
3025	Mandibular tooth	Canine	?R	99	3	1	A	-	Moderate occlusal wear, calculus
3025	Mandibular tooth	?Second Premolar	R	99	3	1	A	-	Severe occlusal wear, calculus
3025	Maxillary tooth	?First molar	R	90	3	1	A	-	Severe occlusal wear, calculus
3025	Clavicle	Almost complete	L	95	1	1	A	-	

3025	Clavicle	Complete	L	99	2	1	A	-	Small bony spur at acromial end
3025	Clavicle	Complete	R	99	2	1	A	-	
3025	Clavicle	Almost complete	R	90	2	1	A	-	
3025	Clavicle	Lateral extremity	R	25	1	1	A	-	Porosity and marginal lipping on acromial articular facet
3025	Scapula	Glenoid fossa, acromion, lateral border, inferior angle	L	40	2	2	A	-	<i>Os acromiale</i> , avulsed fragment not retained. Surface on process is porotic.
3025	Scapula	Glenoid fossa, acromion, coracoid	L	35	2	2	A	-	Osteophytes around outer margins of glenoid fossa
3025	Scapula	Glenoid fossa, coracoid	R	30	1	1	A	-	Porosity on clavicular facet
3025	Scapula	Glenoid fossa, coracoid	R	30	1	1	A	-	DJD around margins of glenoid fossa. Lipping and osteophyte formation on superior aspect of coracoid. ?Trauma/soft tissue trauma (?coracoclavicular ligament)
3025	Scapula	Acromion	R	5	1	1	A	-	

3025	Scapula	Medial border, scapular spine	R	10	1	1	A	-	Does not match other scapula fragments
3025	Scapula	Blade fragments	-	5	1	2	A	-	Fragments don't match
3025	Sternum	Body	-	15	3	1	A	-	Sternum fragments don't match
3025	Sternum	Body	-	10	2	1	A	-	Sternum fragments don't match
3025	Malleus, Incus	Complete	L	100	2	1	A	-	Bag labelled "left side"
3025	Malleus, incus	Complete	R	100	2	1	A	-	Bag labelled "right side"
3025	Incus	Complete	-	100	1	1	A	-	
3025	Skull vault	Frontal, parietals x2, occipital	-	65	1	4	A	M	Fragments match, 1 individual
3025	Zygomatic	Almost complete	R	90	1	1	A	-	Sutures don't match R orbit of frontal from the same context
3025	Frontal	Squama, glabella, supraorbital margins	R (squama)	65	1	2	A	M	
3025	Occipital, Parietals x 2	Vault, Lambdoid suture	L+R	Occ=50, Parx 2=5	1	4	A	?F	Fragments match. 2-3 lambdoid ossicles in suture.
3025	Parietal	Vault, squamosal edge	L	20	1	2	A	-	Fragments match
3025	Parietal x2	Vault, sagittal suture, squamosal edge	L+R	30	2	8	A	-	Fragments don't match

3025	Temporal	Mastoid process	L	15	1	1	A	?F	
3025	Temporal	Petrous portion, mastoid process	L	40	1	1	A	?F	
3025	Temporal	Zygomatic process	L	15	1	1	A	-	
3025	Temporal	Petrous portion, mastoid process	R	40	1	1	A	F	Pitting and remodelling around mastoid process
3025	Temporal	Petrous portion	R	20	1	2	A	-	Fragments match
3025	Temporal	Petrous portion, mastoid process	L	50	1	1	A	F	
3025	Temporal	Mastoid process	L	20	1	1	A	?M	
3025	Temporal	Petrous portion, mastoid process	R	35	1	1	A	?F	
3025	Temporal	IAM	R	15	1	1	A	-	Doesn't match other temporal fragments
3025	Frontal	Supraorbital margin	R	10	1	1	A	-	
3025	Frontal	Supraorbital margin	L	5	1	1	A	-	
3025	Parietal	Vault fragments	-	-	3	5	A	-	Fragments don't match
3025	Temporal x4	Squama fragments	-	-	2	4	A	-	Fragments don't match
3025	Skull	Vault fragments	-	-	2	11	A	-	Fragments don't match
3025	Skull	Unidentified small fragments	-	-	2	38	A	-	

3025	Mandible	Body	R	20	2	1	A	-	No teeth present
3025	Maxillary tooth	Third molar	R	99	1	1	A	-	Slight calculus
3025	Maxillary tooth	Central incisor	L	99	1	1	A	-	
3025	Pelvis	Iliac blade, auricular surface	R	70	3	1	J	-	Older juvenile (7-12 years old)
3025	Pelvis	Iliac blade, auricular surface	R	30	2	1	OMA	F	
3025	Pelvis	Iliac blade, auricular surface	L	30	1	1	YMA	M	
3025	Pelvis	Ischial tuberosity	R	15	1	1	A	-	
3025	Pelvis	Ischial tuberosity	L	10	1	1	A	-	
3025	Pelvis	Acetabulum	L	10	1	1	A	-	
3025	Pelvis	Pubis	R	10	1	1	OMA	M	
3025	Pelvis	Ischiopubic ramus, pubic symphysis	R	5	1	1	YMA	?M	
3025	Pelvis	Ischiopubic ramus	?L	5	1	1	A	?M	
3025	Sacrum	Body, ala	R (ala)	20	2	1	A	?M	DJD on superior surface S1, sacroiliac joint
3025	Sacrum	Dorsal wall	-	5	2	2	A	-	Fragments don't match
3025	Sacrum	Ala	?L	5	1	1	A	-	Porosity and osteophytes on sacroiliac joint
3025	C vertebra (C1)	Almost complete	-	90	1	2	A	-	Fragments match

3025	C vertebra (C1)	Articular facets	L	15	1	1	A	-	
3025	C vertebra (C2)	Almost complete	-	95	0	1	A	-	Matches complete C1 above
3025	C vertebra (C3)	Almost complete	-	95	1	1	A	-	DJD. Osteophytes superior body: OA L sup. art. facet. Doesn't articulate with C2 above. Bilateral bipartite transverse foramina (nearly complete on L).
3025	T vertebra (T1)	Almost complete	-	85	1	1	A	-	
3025	T vertebra	Spinous process, art. facets, transverse process	R	45	1	1	A	-	
3025	T vertebra (?T8-9)	Body, art. facets, spinous process	-	75	2	1	A	-	Schmorl's node inferior body
3025	T vertebra (?T5-7)	Body, arch, 1x transverse process	L (tr. proc.)	80	1	1	A	-	
3025	T vertebra x2	Body	-	40	2	1	A	-	
3025	L/T vertebra	Body fragments	-	-	1	1	A	-	Fragments don't match

3025	Vertebrae x7 (T7-L1)	Complete (except T9)	-	99 (T9 = 95)	1	1 each	A	-	1 individual
3025	T vertebra (T12)	Body, 1x sup. art. facet	R (facet)	40	2	1	A	-	DJD sup. body. Depression on central area sup. body – crush fracture?
3025	L vertebra (?L1)	Almost complete	-	90	2	1	A	-	Depression in central area of superior body – crush fracture?
3025	L vertebrae x4	Body	-	40	2	5	A	-	Marginal osteophytes
3025	S vertebra	Body	L	15	1	1	A	-	Unfused S vertebra?
3025	T/L vertebra	Superior articular facet	L	5	2	1	A	-	DJD, OA
3025	L vertebra x2	Spinous process	-	10	1	2	A	-	
3025	L vertebra x2	Articular facets (sup and inf)	R	15	2	2	A	-	
3025	T vertebra x2	T process, sup. art. facet	L x2	5	1	2	A	-	
3025	T vertebra	Transverse process	?L	5	2	1	A	-	
3025	Vertebra	Articular facets	-	-	3	7	A	-	6 thoracic, 1 lumbar
3025	Femur	Head and proximal shaft	R	20	2	1	A	-	
3025	Femur	Head and proximal 1/3 shaft	L	40	2	1	A	-	

3025	Femur	Distal end and 1/3 shaft	L	45	1	1	A	-	Iron staining in trabecular bone, distal end
3025	Femur	Shaft	R	30	3	1	A	-	
3025	Femur	Shaft	L	15	2	1	A	-	
3025	Femur	Shaft	-	30	5	1	A	-	
3025	Tibia	Head and shaft	R	80	1	2	A	-	Fragments match
3025	Tibia	Proximal 1/2 shaft	R	25	1	1	A	-	
3025	Tibia	Shaft	L	30	2	1	A	-	
3025	Humerus	Distal end and shaft	R	40	1	1	A	-	Iron ?nail fragment embedded in trochlea surface
3025	Humerus	Head	?L	10	1	1	A	-	
3025	1 st rib	Almost complete	L	95	2	1	A	-	
3025	1 st rib	Tubercle and shaft	R	30	2	1	A	-	
3025	2 nd rib	Neck, tubercle and shaft	R	35	2	1	A	-	
3025	2 nd rib	Shaft	L	20	2	1	A	-	
3025	11 th rib	Complete	L	99	2	1	A	-	
3025	12 th rib	Complete	R	99	2	1	A	-	
3025	Ribs x2	Tubercle and shaft	R	-	2	2	A	-	
3025	Ribs x3	Head, tubercle and shaft	R	-	2	3	A	-	2 almost complete
3025	10 th rib	Head and shaft	R	75	2	1	A	-	
3025	Ribs	Neck, tubercle, shaft	L	-	2	3	A	-	

3025	Ribs x3	Head, tubercle, angle	L	-	2	2	A	-	
3025	Rib	Tubercle	-	5	1	1	A	-	
3025	Rib x2	Sternal end and shaft	L	-	2	2	A	-	Porosity on sternal end surfaces (all fragments)
3025	Rib	Sternal end and shaft	R	30	2	1	A		Porosity on sternal end surface
3025	Rib	Sternal end and shaft	-	-	1	3	A	-	Porosity on sternal end surfaces (all fragments)
3025	Rib	Shaft fragments	-	-	2	13	A	-	
3025	Tibia	Tibial tuberosity	L	10	1	1	A	-	
3025	Metacarpal	Shaft, complete	-	99	5	1	J	-	Approx 1-2 years old
3025	Lunate	Complete	R	1	1	1	A	-	
3025	MC5	Complete	R	99	1	1	A	-	
3025	Radius	Head	?L	<5	1	1	A	-	
3025	?Humerus	?Neck	?R	5	1	1	A	-	
3025	Humerus	Distal end	L	5	1	1	A	-	
3025	Clavicle	Sternal end	R	10	1	1	A	-	Porosity on articular surface
3025	Unidentified	Unidentified fragments	-	-	2	46	A	-	
3027	Maxillary tooth	Lateral incisor, complete	R	99	1	1	A	-	Severe occlusal wear
3031	Rib (1 st)	Head and tubercle	R	5	1	1	A	-	
3031	Rib	Head, tubercle and angle	R	15	2	1	A	-	

3031	Ribsx4	Heads	R	5	2	4	A	-	
3031	Ribsx5	Shafts	R	All 10	2	5	A	-	
3031	Ribsx2	Head and tubercle	L	All 5	2	2	A	-	
3031	Ribs	1 head, 5 shafts	L	5 (4 ribs), 10 (2 shafts)	2	6	A	-	
3031	Ribs	Shaft fragments	-	-	2	15	A	-	
3031	Ribsx2	Heads	-	<5	2	2	A	-	
3031	Ribs	Unidentified fragments	-	-	2	29	A	-	
3031	Rib (1-2)	Angle	L	20	1	1	Non-adult	-	
3031	Unidentified long bone	Small terminal shaft fragment	-	-	1	1	Non-adult	-	
3031	?Femur	Small ?distal shaft fragment	R?	5	1	1	Non-adult	-	
3031	Humerus	Head and 2/3 shaft	L	60	2	5	A	-	Fragments match
3031	Maxillary tooth	Incisor, ?lateral	R	99	1	1	A	-	Severe occlusal wear
3031	Scapula	Lateral border, blade	R	15	1	2	A	-	Fragments match
3031	Scapula	Coracoid process	R?	5	1	1	Non-adult ?	-	
3031	Scapula	Inferior angle	L?	5	1	1	A	-	
3031	Scapula	Inferior angle	-	<5	2	1	A	-	
3031	Scapula x4	2 blade, 2 ?acromion	-	5	2	4	A	-	Fragments don't match

3031	T vertebra (?T1)	Arch, 1 superior art. facet	R (facet)	30	1	1	A	-	
3031	T vertebra (T10)	Body, arch, sup. and inf. artic. facets	L+R (facet s)	85	2	1	A	-	Articulates with T11 below. Lipping on superior and inferior body margins.
3031	T vertebra (?T11)	Almost complete	-	90	2	1	A	-	Articulates with T10 above. Schmorl's node on inferior body. Lipping on superior and inferior body margins.
3031	T vertebra (T8-T9)	Body	-	70	1	1	A	-	Schmorl's node on inferior body. Lipping on superior and inferior body margins.
3031	T vertebra (?T2-T3)	Body, arch, 1 transverse process	L (tr. proc.)	75	1	1	A	-	
3031	C vertebra	Body, 1 sup. art. facet	L (facet)	10	1	1	A	-	
3031	?C vertebra	Body, lateral process	-	5	1	1	A	-	
3031	T vertebra x3	Spinous process	-	2=5, 1=10	1	1	A	-	Fragments don't match
3031	?T vertebra	Arch fragment	L+R	<5	2	1	A	-	
3031	?Metacar pals	Shafts	-	15	1	2	A	-	

3031	Unidentified fragments	Shaftsx2	-	-	2	3	A	-	Fragments don't match
3031	Unidentified fragments	-	-	-	2	11	A	-	
3031	Zygomatic, maxilla	Z = complete, M = Zygomatic process	L	Z= 99, M= 5	2	1	A	-	
3032	Skull	Frontal, x2parietals, occipital	-	95 (F.) 90 (2xP) 10 (O.)	1	4	A	?M	Fragments match
3032	Skull	Vault fragments	-	-	1	2	A	-	
3043	Parietalx3	Sagittal suture	L+R	15	1	3	A	-	Fragments match
3043	Parietal	Vault fragments	-	-	1	11	A	-	Fragments do not match
3043	Frontal, 2x parietals	Bregma	-	L. Par= <5, R. Par., F=5	1	1	A	-	Endocranial pitting (?arachnoid foveae)
3043	Frontal	Squama, supraorbital margin	L	10	1	1	A	-	
3043	Frontal	Supraorbital margin	R	<5	1	1	A	-	
3043	Frontal	Nasion / Metopic suture	L+R	<5	1	1	A	-	
3043	Temporal	Petrous portion, mastoid process	L	70	2	1	A	F	

3043	Temporal	Petrous portion	R	60	2	1	A	-	
3043	Temporal x3	Squamosal suture	-	5	1	3	A	-	Fragments don't match
3043	Occipital, sphenoid	Sphenooccipital suture, occipital condyle	R	5 (each)	1	1	A	-	
3043	Skull	Skull vault fragments	-	-	2	14	A	-	Fragments don't match
3043	C vertebra (C2)	Almost complete	-	95	2	1	A	-	Porosity on dens
3043	?Mandible	?Mental protuberance	-	5	1	1	?Non-adult	-	?Young juvenile
3043	Mandible	Body	-	60	2	1	OMA MA	F	No teeth present. AMTL – all L molars, both P2 lost AM, alveoli resorbing.
3043	Mandibular tooth	?Premolar	?L	90	2	1	A	-	Severe occlusal wear
3043	Unidentified	Unidentified fragments	-	-	2	8	A	-	
3052	Rib	Head	?L	5	1	1	Non-adult	-	
3078	Maxillary tooth	Incisor, ?lateral	-	95	1	1	A	-	Severe occlusal wear

Key:

Surface preservation: grades 0 (excellent), 1 (very good), 2 (good), 3 (moderate), 4 (poor), 5 (very poor), 5+ (extremely poor). After McKinley 2004

Age, non-adults: J (juvenile: 1-12 y), ADO (adolescent: 13-17y), non-adult (<18y).

Age, adults: YA (young adult: 18-25y), YMA (young middle adult: 26-35y), OMA (old middle adult: 36-45y), MA (mature adult: 46+y), A (adult: 18+y).

Sex: F= female, ?F= probable female, ?M= probable male, M= male, - = undetermined.

PD= periodontal disease; DJD= Degenerative Joint Disease; OA= osteoarthritis.

4 CONCLUSION

The human bone from the Guildhall site is a small disarticulated assemblage containing a minimum of five adult individuals and characterised by good surface preservation despite high levels of fragmentation. Females, males, adults and non-adults are all represented, but it was not possible to assign multiple bones to the same individual within the assemblage.

Most of the skeletal remains were recovered from contexts described as grave backfills, demolition spreads and unstratified deposits. Combined with the levels of fragmentation this suggests that the human bone is primarily redeposited bone from disturbed burials.

5 RECOMMENDATIONS FOR FURTHER RESEARCH

The collection of disarticulated human bone has limited potential for further research. Disarticulated bone assemblages cannot generally provide accurate demographic data for a burial ground, especially in areas that have been extensively disturbed by later activity (McKinley 2004).

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APPENDIX 7 – ANIMAL BONE BY NIENKE VAN DOORN

1 INTRODUCTION

Excavations on the City of York Guildhall site have produced an assemblage of hand collected animal bone from the 2020 excavation 1 phase. These animal bones were recovered from 60 contexts and 1 pile hole. From 22 of those contexts, a small amount of shell was also recovered. This assemblage has been rapidly assessed focussing primarily on the range of animal taxa present.

2 METHODOLOGY

The faunal remains were examined and recorded with guidance from Dobney et al. (1999) and O'Connor (2008). Evidence of butchery, gnawing, burning or post depositional damage was recorded where present, with reference to Shipman et al. (1984) and Stiner et al. (1995).

Identification of species was completed using published identification guides (Pales & Lambert 1971). Wherever identification to species could not be achieved, bone fragments were classified using the following categories; unidentified mammal, unidentified bird, or unidentified fish. Mammalian fragments that retained characteristics that enabled estimation of the size of the animal were assigned to one or more of the following categories: large mammal (the size of horse/cow/large cervid [i.e. deer]), medium mammal 1 (the size of sheep/goat/pig/small cervid), medium mammal 2 (the size of dog/cat/hare), small mammal (the size of rodents, mustelidae (badger/otter/polecat family) etc). Very small bone scraps (usually smaller than 10mm) were recorded as unidentifiable and only counted approximately.

3 DISCUSSION

The results are outlined in table 14 and 15.

Most of the recovered bone was in fair condition, but very few elements were complete, seemingly broken during deposition. All of the material was disarticulated. For a number of contexts, especially the smaller assemblages, the remains were consistent in colour. Burnt fragments appeared infrequently. The degree of burning also varied. Most contexts varied strongly in colour as well as taphonomy, indicating that these contexts may have been disturbed at some point post deposition.

The most common taxa represented in this assemblage are cow and sheep/goat, followed by elements of pig, horse, roe deer, dog and cat found, as well as fish and bird. There were no indications of bone working or very clear markings that indicated specialised butchery. Even though some contexts had an overrepresentation of certain elements, these contexts were often unstratified.

Especially on the bird bones, tooth marks were a common find, and some elements displayed gnawing, indicating of scavenging by other animals on the site.

Table 14 Animal bone from Guildhall, York

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3000	72	<p>Cattle: 1 proximal metatarsal, 1 2nd distal phalanx, 2 distal humerus, 1 femoral head, 1 proximal metacarpal, 1 scapula, 1 pelvis</p> <p>Sheep: 1 juvenile metatarsal, 1 proximal tibia, 5 distal humerus, 1 1st distal phalanx, 1 proximal radius, 1 distal radius, 1 radius shaft juvenile, 1 proximal metacarpal, 1 proximal metatarsal, 3 metapodial shafts, 1 atlas fragment, 1 mandible condyle, 1 proximal tibia</p> <p>Bird: 1 femur (with ?tooth mark), 1 tibiotarsus</p> <p>Hare/rabbit: 1 proximal femur</p>	<p>Light brown to medium, varied preservation.</p> <p>Large mammal: 2 pelvis, 5 rib, 3 vertebra, 2 scapula, 2 mandible fragment, 3 scraps</p> <p>Medium (1) mammal: 6 long bone, 12 rib, 3 vertebrae, 3 scrap</p> <p>Medium (2) mammal: 1 juvenile distal ?femur</p>
3001	4	<p>Cattle: 1 proximal radius/ulna, 1 proximal metacarpal</p> <p>Sheep: 1 distal metapodial</p> <p>Bird: 1 tibiotarsus (large, no spur)</p>	Light to medium brown, good preservation
3023	18	<p>Cattle: 1 2nd distal phalanx</p> <p>Bird: 3 ?femur fragments (very large)</p>	<p>Light brown</p> <p>Large mammal: 4 rib, 1 long bone, 5 skull, 4 scraps</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3025	80	<p>Cattle: 2 mandible fragments, cutmarks; 1 metacarpal, 1 distal metapodial, 1 distal metapodial (sawn), 1 2nd distal phalanx, 3 teeth, 1 mandible fragment with teeth, 1 distal tibia, 1 astragalus, 2 scapula, 1 femoral head</p> <p>Sheep: 1 juvenile femur shaft (very porous, poss. pathology? also cutmarks), 1 jaw fragment with teeth; 1 proximal metatarsal; 1 metacarpal, 1 metapodial shaft, 1 radius, 4 distal radius, 1 v radius, 3 radius shafts (1 juvenile), 1 ulna, 1 pelvis, 1 tooth, 1 proximal humerus, 1 proximal tibia, 1 distal femur, 4 distal humerus, 1 tarsal</p> <p>Pig: 1 juvenile metapodial distal, porous; 1 radius; 1 juvenile radius, 1 metapodial</p> <p>Bird: 1 ?tibiotarsus ?proximal fragment, 2 long bone fragment; 1 large femur, 1 proximal femur</p>	<p>Light brown, varied preservation, some strong abrasion, mottling on large rib.</p> <p>1 very abraded scrap with mottling</p> <p>Large mammal: 4 rib fragment, 6 vertebrae, 3 long bone fragment, 1 skull fragment</p> <p>Medium (1) mammal: 2 rib, 6 long bone, 1 scapula, 2 pelvis, 1 skull fragment, 4 scraps</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3026	144	<p>Cattle: 2 horncore, 2 1st distal phalanges, 1 2nd distal phalanx, 1 tibia distal, 1 calcaneus, 1 tooth, 2 scapula, 1 pelvis, 1 juvenile distal femur</p> <p>Sheep: 1 distal femur epiphysis, 1 distal humerus, 1 distal tibia, 1 scapula, 2 teeth, 1 vertebra, 1 jaw fragment with tooth, 1 humerus head</p> <p>Pig: 4 metapodials, 1 ulna, 1 scapula, 1 distal humerus, 1 pelvis, 1 jaw fragment with tooth</p> <p>Bird: 1 rib, 1 ulna, 2 carpometacarpus, 1 sternum. At least 2 different sizes of bird, one large (goose?) and one small (1 of the carpometacarpus)</p> <p>Fish: 1 fragment</p> <p>?Cat: 1 juvenile metapodial</p> <p>?Dog: 1 tibia shaft</p>	<p>Light to medium brown, overall decent preservation, tooth mark on m1 long bone? Iron staining.</p> <p>Large mammal: 18 rib fragments, 7 vertebrae, 19 long bone, 15 flat, 2 skull fragment</p> <p>Medium (1) mammal: 8 vertebrae, 5 rib, 4 skull fragments, 2 pelvis, 9 long bone, 14 scraps</p>
3027	31	<p>Cattle: 2 1st distal phalanges (1 pathology/osteoarthritis?), 1 distal metapodial, 1 distal metapodial epiphysis, 2 teeth, 1 mandible fragment</p> <p>Sheep: 1 distal humerus, 1 calcaneus, 1 scapula</p> <p>Pig: 1 proximal radius, 1 tooth</p> <p>Bird: 1 ulna, 2 radius</p>	<p>Varied colouring from light brown to very dark</p> <p>Large mammal: 5 ribs, 1 vertebra, 5 scraps</p> <p>Medium (1) mammal: 1 rib, 2 long bone, 2 scraps</p>
3029	14	<p>Cattle: 1 distal metapodial, 1 proximal metacarpal, 1 1st distal phalanx, 1 juvenile proximal tibia, 1 distal radius, 1 distal humerus</p> <p>Pig: 1 pelvis</p> <p>Fish: 1 thornback ray spine</p>	<p>Pale light brown, distal metapodial dark with orange hue</p> <p>Large mammal: 1 vertebra, 1 ?mandible fragment, 3 scrap</p> <p>Medium (1) mammal: 1 vertebra</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3031	112	<p>Cattle: 1 astragalus, 1 2nd distal phalanx, 1 distal tibia, 7 teeth, 1 juvenile scapula, 1 distal metapodial, 3 tarsal, 1 distal humerus, 1 distal femur, 1 atlas</p> <p>Sheep: 2 1st distal phalanx, 1 calcaneus, 3 pelvis, 1 atlas, 1 scapula, 1 proximal metatarsal with pathology (thickening at proximal end - healed fracture?), 1 proximal humerus, 1 distal humerus, 1 metapodial epiphysis, 1 metapodial shaft, 1 ?tooth, 1 ?scapula</p> <p>Pig: 1 1st distal phalanx, 1 proximal radius, 1 tooth, 1 metapodial, 1 patella</p> <p>Bird: 1 ?radius (small, ?passerine), 1 scrap</p> <p>?Roe deer: 1 distal radius, 1 scapula, 1 1st distal phalanx</p> <p>Dog: 1 proximal femur, 1 proximal tibia</p> <p>Fish: 1 vertebra</p> <p>?Rabbit: 1 scapula</p>	<p>Light to dark brown, varied colours and preservation, some porosity, cracking, possible iron staining, copper staining.</p> <p>Large mammal: 3 jaw fragments, 4 long bone, 3 vertebrae, 4 rib, 9 scrap</p> <p>Medium (1) mammal: 2 vertebra, 1 scapula, 2 long bone, 9 ribs, 24 scraps</p> <p>Medium (2) mammal: 1 juvenile femur, 3 ribs</p>
3032	63	<p>Cattle: 2 jaw fragments, 1 tooth, 1 navicular, 2 1st distal phalanges, 2 2nd distal phalanx, 1 ?proximal ?humerus fragment, 1 ?juvenile humerus shaft</p> <p>Sheep: 1 1st distal phalanx, 1 2nd distal phalanx, 1 jaw fragment with teeth, 1 juvenile distal femur, 2 juvenile ?metapodial, 1 distal humerus, 1 calcaneus, 1 mandible</p> <p>Pig: 1 jaw fragment with teeth</p> <p>Bird: 1 carpometacarpus, 1 sternum</p>	<p>Light to mid brown, some elements are porous or abraded, others more glossy, some orange hue.</p> <p>3 burnt fragments (grey, some white)</p> <p>Large mammal: 1 vertebra, 3 rib, 12 scraps (long bone)</p> <p>Medium (1) mammal: 2 ribs, 5 vertebrae, 15 scraps</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3033	28	Cattle: 1 1 st distal phalanx Sheep: 1 distal radius, 1 distal tibia, 1 metapodial shaft, 1 proximal humerus, 1 ulna, 1 tooth Bird: 1 long bone	Light to dark brown, varied colours, butchery. Large mammal: 2 rib, 1 long bone, 1 pelvis, 2 vertebra Medium (1) mammal: 5 scraps, 1 scapula with butchery, 2 long bone, 2 vertebrae, 4 scraps
3037	14	Cattle: 1 1 st distal phalanx, 1 2 nd distal phalanx, 1 pelvis Pig: 2 maxilla with teeth juvenile Roe deer: 2 metatarsals (1 juvenile), 1 scapula	Medium brown Large mammal: 2 vertebrae, 1 rib, 1 skull Medium (1) mammal: 1 rib, 1 scrap
3038	69	Cattle: 2 proximal femur, 1 femoral head, 1 split astragalus, 1 patella, 1 proximal metatarsal, 1 2 nd distal phalanx, 1 abraded 3 rd distal phalanx, 1 pelvis, 2 tarsal, 1 atlas, 2 teeth Sheep: 4 radius, 1 distal ?humerus, 1 distal humerus, 2 proximal radius, 1 distal tibia Bird: 1 coracoid, 1 pelvis fragment (large)	Light to medium brown, orange hue Large mammal: 3 rib, 2 vertebrae, 2 mandible, 12 long bone, 2 scapula, 13 scrap Medium (1) mammal: 2 vertebrae, 1 scapula, 6 long bone, 1 scrap

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3043	169	<p>Cattle: 2 1st distal phalanx, 1 2nd distal phalanx, 1 calcaneus, 1 proximal metapodial fragment, 2 horn core, 2 teeth, 1 tarsal, 1 jaw fragment with teeth, 2 proximal metapodial fragments</p> <p>Sheep: 1 radius, 5 proximal radius (1 juvenile), 4 distal radius, 1 distal tibia, 5 distal humerus, 1 tooth, 1 astragalus, 1 ulna, 1 scapula, 1 proximal humerus, 1 metapodial shaft</p> <p>Pig: 1 humerus shaft, 2 metapodials, 1 tooth</p> <p>Bird: 1 carpometacarpus, 1 tibiotarsus, 1 ulna (with ?tooth mark), 2 long bone, 1 femoral head, 1 proximal ?humerus (large with ?tooth mark), 1?scapula</p> <p>Fish: 1 vertebra, 14 scraps</p> <p>?Cat: 1 proximal tibia</p>	<p>Light brown, porosity on pig humerus, good preservation, some mottling</p> <p>11 burnt fragments (2 charred, grey to white, 5 white)</p> <p>Large mammal: 3 scapula, 3 vertebra, 7 rib, 9 scraps</p> <p>Medium (1) mammal: 12 ribs, 13 long bone, 1 pelvis, 5 vertebrae, 2 skull fragments, 46 scraps</p> <p>Medium (2) mammal: 1 juvenile pelvis, 1 juvenile long bone fragment</p> <p>Small mammal: 5 ribs, 9 vertebrae</p>
3045	10	<p>Cattle: 1 2nd distal phalanx</p> <p>Sheep: 1 distal humerus</p>	<p>Light brown, light mottling</p> <p>Large mammal: 3 ribs, 5 scraps</p>
3047	5	<p>Sheep: 1 distal tibia</p> <p>Pig: 1 juvenile femur</p>	<p>light to medium brown, varied hues, 1 fragment iron or cess concreted</p> <p>Large mammal: 1 juvenile vertebra with epiphysis, 1 scrap</p> <p>Medium (1) mammal: 1 long bone</p>
3048	42	<p>Cattle: 1 distal femur juvenile, 2 distal femur, 1 proximal femur, 3 teeth, 1 pelvis, 2 mandible, 1 astragalus, 1 1st distal phalanx, 1 tibia shaft, 1 distal humerus epiphysis</p> <p>Sheep: 2 mandible, 2 distal tibia, 1 femur distal epiphysis, 1 ?metapodial shaft, 1 1st distal phalanx</p> <p>Pig: 1 maxilla, 1 tusk</p> <p>Bird: 1 furcula</p>	<p>Light to medium/dark brown, mottling, varied taphonomy and colour, saw marks on cattle bone and large vertebrae</p> <p>Large mammal: 1 skull fragment, 3 rib, 3 long bone, 4 scraps, 2 vertebrae, 1 pelvis</p> <p>Medium (1) mammal: 2 scraps, 1 rib</p> <p>Medium (2) mammal: 1 ?tibia shaft</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3050	106	<p>Cattle: 1 metacarpal, 1 calcaneus, 1 patella, 4 1st distal phalanges, 5 teeth, 1 distal tibia, 2 tarsal, 1 astragalus, 1 ulna, 1 pelvis, 1 jaw fragment with teeth</p> <p>Sheep: 2 ?goat horn core, 1 scrap horn core, 4 mandible (2 with teeth), 1 metapodial shaft, 2 distal metapodials, 2 proximal metatarsals (1 ?roe deer), 1 1st distal phalanx, 1 astragalus, 1 proximal tibia, 1 tarsal</p> <p>Pig: 1 metapodial, 1 axis</p> <p>Bird: 1 long bone (?femur) fragment, 1 tibiotarsus</p> <p>Horse: 1 metatarsal IV, 1 tooth</p>	<p>Light to medium brown, mottling, some orange hue</p> <p>2 burnt fragments some black charring, some white</p> <p>Large mammal: 5 pelvis, 2 vertebrae, 9 ribs, 1 long bone, 30 scraps</p> <p>Medium (1) mammal: 8 vertebrae, 3 ribs, 5 scraps</p>
3052	152	<p>Cattle: 1 metacarpal, 3 calcaneus, 1 astragalus, 1 1st distal phalanx, 2 2nd distal phalanges, 1 tarsal, 1 proximal humerus, 2 distal femur fragments, 1 maxilla with teeth, 1 mandible condyle, 3 tooth, 1 proximal ulna</p> <p>Sheep: 4 distal humerus, 2 pelvis, 1 distal femur, 2 proximal radius, 1 radius shaft, 1 metapodial epiphysis, 1 atlas, 1 mandible condyle, 1 maxilla with teeth, 1 horn core</p> <p>Pig: 5 jaw fragments with teeth, 1 tooth, 1 metapodial, 1 scapula</p>	<p>Light brown, grey hue</p> <p>Large mammal: 8 pelvis, 13 long bone, 3 vertebrae, 3 epiphysis or distal ends (saw marks), 19 ribs, 24 scraps</p> <p>Medium (1) mammal: 1 pelvis, 4 scapula, 1 rib, 5 long bone, 7 vertebrae, 11 skull fragments, 12 scraps</p>
3053	28	<p>Cattle: 1 3rd distal phalanx, 1 jaw fragment with tooth</p> <p>Pig: 1 calcaneus</p> <p>Bird: 1 proximal tarsometatarsus</p>	<p>Medium to dark, cress, mottling</p> <p>Large mammal: 1 skull fragment, 1 pelvis, 5 ribs, 11 scraps</p> <p>Medium (1) mammal: 4 long bone, 1 ?vertebra, 1 scrap</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3055	46	<p>Cattle: 1 1st distal phalanx, 2 2nd distal phalanx, 2 tooth, 1 distal metapodial, 1 juvenile metapodial shaft</p> <p>Sheep: 1 distal tibia, 1 proximal tibia, 1 distal femur, 1 calcaneus, 1 pelvis, 1 radius</p> <p>Pig: 1 proximal radius</p> <p>Bird: 1 proximal femur, 1 femur, 1 sternum</p>	<p>Light to medium brown, mottling, iron staining</p> <p>1 strongly iron concreted fragment</p> <p>Large mammal: 1 vertebra (atlas), 1 vertebra, 4 ribs, 1 pelvis (butchery), 5 scraps</p> <p>Medium (1) mammal: 3 rib, 2 vertebrae, 3 long bone abraded, 6 scrap, 1 scapula (?deer), 1 scapula</p>
3056	15	<p>Cattle: 1 distal femur (cattle?), 1 mandible fragment, 1 mandible condyle</p> <p>Pig: 1 juvenile metapodial</p> <p>Bird: 2 tibiotarsus, 1 long bone shaft</p>	<p>Very light brown to dark brown, blackening (charring?)</p> <p>1 burnt fragment (black-grey-white)</p> <p>Large mammal 4 rib</p> <p>Medium (1) mammal: 3 rib</p>
3057	44	<p>Cattle: 1 calcaneus, 2 ulna, 1 hyoid, 1 radius distal epiphysis, 3 teeth, 1 distal humerus, 1 distal tibia, 1 juvenile distal femur</p> <p>Sheep: 1 ulna, 1 distal humerus, 1 pelvis</p> <p>Bird: 1 femur, 1 tibiotarsus (large), 1 coracoid (large), 1 humerus</p> <p>Roe deer: 2 metatarsals (+2?), 1 mandible, 1 axis, 1 distal humerus, 1 proximal ulna;</p> <p>Dog: 1 juvenile femur shaft</p>	<p>Light brown, orange hue on cow ulnas, varied abrasion, mottling</p> <p>Large mammal: 2 rib, 4 skull/jaw fragments, 4 scraps (long bone)</p> <p>Medium (1) mammal: 4 long bone fragments, 2 rib, 1 vertebra, 2 scapula</p>
3058	9	<p>Cattle: 1 astragalus, 1 distal metapodial, 1 tooth</p> <p>Pig: 1 ulna</p> <p>Bird: 1 long bone shaft</p>	<p>Light brown</p> <p>Large mammal: 1 pelvis, 1 vertebra, 2 long bone</p>
3060	31	<p>Cattle: 2 1st distal phalanges (1 juvenile), 1 tarsal</p> <p>Sheep: 2 distal humerus</p> <p>Pig: 1 tusk, 1 metapodial</p> <p>Bird: 1 humerus, 1 coracoid</p> <p>?Dog: 1 juvenile humerus</p>	<p>Light brown, cess, mottling</p> <p>Large mammal: 6 rib, 5 scrap (long bone), 3 vertebrae</p> <p>Medium (1) mammal: 1 vertebra fragment, 6 scraps</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3062	38	<p>Cattle: 1 ulna, 1 metatarsal, 1 distal metapodial, 1 split proximal metapodial, 2 femoral heads</p> <p>Sheep: 1 astragalus, 1 mandible fragment, 1 distal metapodial</p> <p>Pig: 1 juvenile proximal femur, 1 humerus shaft, 1 mandible with teeth and tusk, 1 mandible fragment</p> <p>Bird: 1 distal humerus (large, unusual), 1 femur, 1 tibiotarsus, 1 ulna, 1 ?tibiometatarsus fragment</p> <p>Fish: 1 vertebra</p>	<p>Mixed colours, very light and glossy to dark, mottling</p> <p>Large mammal: 6 ribs, 1 ?scapula, 5 long bone, 1 vertebra, 2 skull scraps</p> <p>Medium (1) mammal: 3 ribs, 1 scapula</p>
3064	18	<p>Cattle: 1 scapula, 1 1st distal phalanx, 1 proximal femur, 1 femoral head, 1 sawn off metapodial shaft</p> <p>Sheep: 1 scapula, 1 distal metapodial, 1 juvenile proximal femur, 1 horn core</p> <p>Fish: 2 fragments</p>	<p>Medium brown, mottling/cess</p> <p>Large mammal: 3 scraps (long bone / vertebrae), 1 rib</p> <p>Medium (1) mammal: 2 rib, 1 long bone</p>
3067	3	<p>Large mammal: 1 pelvis</p> <p>Medium (1) mammal: 1 vertebra, 1 scrap</p>	Medium brown
3068	8	<p>Cattle: 4 horn core fragments, 1 astragalus (split)</p> <p>Pig: 1 jaw fragment with teeth</p>	<p>Varied colouring, light to medium, mottling on jaw, orange hue</p> <p>Large mammal: 1 rib</p> <p>Medium (1) mammal: 1 vertebra</p>
3069	2	<p>Cattle: 1 3rd distal phalanx</p> <p>Bird: 1 ?proximal tibiotarsus (large)</p>	Light brown, good preservation
3070	3	Cattle: 1 juvenile distal metapodial	<p>Light brown, mottling on rib</p> <p>Large mammal: 1 rib, 1 vertebra</p>
3071	1	Large mammal: 1 scrap	Medium brown
3072	2	Cattle: 1 1 st distal phalanx, 1 proximal metapodial fragment	Light-medium brown

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3074	5	Cattle: 1 mandible with tooth (2 fragments) Bird: 1 distal femur with tooth mark	Varied colouring and preservation, from medium grey brown to yellow-orange Large mammal: 2 ribs with cutmarks
3076	16	Sheep: 1 distal femur, 1 proximal metacarpal Bird: 1 tibiotarsus ?Dog: 1 juvenile distal femur	Medium brown, grey hue Large mammal: 1 long bone Medium (1) mammal: 1 vertebra, 4 ribs, 4 long bone, 2 scraps
3078	11	Bird: 1 radius, 1 juvenile femur (tooth marks), 1 tarsometatarsus with spur (extensive gnawing)	Light to mid brown, good preservation with some glossy surfaces, extensive gnawing Large mammal: 4 scraps (long bone/vertebra), 1 rib Medium (1) mammal: 2 rib, 1 scrap
3080	21	Cattle: 1 astragalus, 1 tarsal, 1 scapula, 1 distal radius, 2 distal ?radius fragments, 1 metapodial shaft Pig: 2 juvenile metapodials Bird: 1 ?coracoid fragment Horse: 1 1 st distal phalanx Fish: 1 skull fragment	Mixed colours, very light and pale to orange hue dark Large mammal: 2 rib, 1 vertebra Medium (1) mammal: 1 scapula, 5 skull fragments (horn core attached)
3081	4	Bird: 1 carpometacarpus (large, ?goose) ?Dog: 1 ?juvenile 1 st distal phalanx	Light brown Large mammal: 1 rib Medium (1) mammal: 1 scrap
3082	7	Cattle: 1 1 st distal phalanx, 1 tarsal Pig: 1 proximal radius	Medium brown Large mammal: 1 rib, 1 scrap Medium (1) mammal: 2 vertebrae
3084	7	Cattle: 1 metatarsal, 1 metapodial shaft, 1 tarsal, 1 abraded astragalus	Light brown, mottling on rib Large mammal: 2 rib, 1 vertebra
3092	4	Cattle: 1 mandible (2 parts), 2 fragments	Medium brown

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3094	74	<p>Cattle: 1 calcaneus, 1 2nd distal phalanx, 1 ulna, 2 jaw fragments, 1 distal radius 1 metapodial? shaft, 1 tooth, 1 tarsal</p> <p>Sheep: 1 distal humerus, 1 proximal metacarpal, 1 distal tibia</p> <p>Pig: 1 juvenile jaw fragment with tusk?</p> <p>Bird: 1 ulna, 1 proximal femur, 1 proximal radius, 10 long bone/scapula fragments</p> <p>Fish: 1 vertebra, 3 rib</p> <p>Cat: 1 metapodial</p>	<p>Light brown to very dark brown for 1 fragments (mixed context?) very varied preservation and taphonomy, cess on cow radius copper on cow metapodial</p> <p>Large mammal: 24 rib/vertebrae/long bone</p> <p>Medium (1) mammal: 1 vertebra, 1 rib, 1 long bone, 1 abraded phalanx distal end, 13 scraps, 1 split long bone shaft (?metapodial)</p> <p>Small mammal: 1 rib (burnt?)</p>
3096	7	<p>Sheep: 1 tibia</p> <p>Pig: 1 jaw fragment with tooth, 1 metapodial</p> <p>Bird: 2 long bone shafts</p>	<p>Light to medium (pig) brown, black and orange mottling</p> <p>Large mammal: 2 rib</p>
3098	17	<p>Cattle: 1 tooth</p> <p>Bird: 1 tarsometatarsus</p>	<p>Light to medium brown, copper staining, some iron staining</p> <p>Large mammal: 4 rib, 3 vertebrae (cutmarks), 1 tarsal, 1 scrap</p> <p>Medium (1) mammal: 4 rib, 1 tarsal, 1 scrap</p>
3102	18	<p>Cattle: 1 1st distal phalanx, 1 distal metapodial, 1 pelvis with cutmarks</p> <p>Sheep: 1 3rd distal phalanx, 1 1st distal phalanx</p> <p>Pig: 1 metapodial, 1 ulna</p>	<p>Light to medium brown</p> <p>1 burnt fragment (black)</p> <p>Large mammal: 1 pelvis, 1 vertebra, 4 scraps</p> <p>Medium (1) mammal: 4 scraps</p>
3104	9	<p>Cattle: 1 tooth</p> <p>Bird: 1 coracoid, 1 carpometacarpus, 1 ?scapula</p>	<p>Light brown, cutmarks</p> <p>Large mammal: 1 vertebra</p> <p>Medium (1) mammal: 1 rib, 3 scraps</p>
3106	19	<p>Cattle: 1 proximal metacarpal, 1 proximal femur, 1 femoral head, 1 tooth, 1 1st distal phalanx</p> <p>Sheep: 1 astragalus, 1 metapodial scrap</p> <p>Pig: 1 astragalus</p> <p>Bird: 1 humerus, 1 coracoid</p>	<p>Light brown, femoral head is medium brown, cutmarks on vertebra</p> <p>Large mammal: 1 vertebra, 1 rib, 1 pelvis, 1 long bone</p> <p>Medium (1) mammal: 2 skull fragments, 2 ribs, 1 longbone scrap</p>

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3107	1	Medium (1) mammal: 1 rib	Medium brown, good preservation
3109	3	Large mammal: 3 ?scapula fragments	Abraded, pale to dark brown
3110	48	Cattle: 1 2 nd distal phalanx, 3 3 rd distal phalanges, 1 ulna, 1 proximal metatarsal, 1 proximal metapodial, 1 distal tibia, 2 teeth Sheep: 1 tooth, 1 distal metapodial epiphysis, 1 1 st distal phalanx, 1 calcaneus, 1 atlas	Light to medium brown 3 burnt fragments (grey, some white) Large mammal: 30 scraps Medium (2) mammal: 2 vertebrae
3114	3	Cattle: 1 juvenile metacarpal, 1 1 st distal phalanx Sheep: 1 juvenile tibia	Light to medium brown, mottling
3116	17	Cattle: 1 distal metapodial, 1 1 st distal phalanx, 1 tooth Sheep: 1 proximal metacarpal, 1 metapodial shaft, 2 2 nd distal phalanges Pig: 1 metapodial, 1 jaw fragment with tooth	Light brown, cutmarks Large mammal: 4 large fragments, 4 scraps
3119	11	Cattle: 2 bone horn core fragments Sheep: 1 juvenile radius (2 parts)	Light to medium brown, fragmented Large mammal: 8 scraps
3126	10	Cattle: 1 metatarsal (2 fragments)	Medium to dark Large mammal: 4 rib, 3 vertebrae Medium (1) mammal: 1 scrap
3128	2	Medium (1) mammal: 1 vertebra, 1 long bone	Medium brown, mottling
3130	18	Cattle: 1 mandible fragment	Medium brown Large mammal: 3 rib, 13 scraps Medium (2) mammal: 1 vertebra (?dog)
3131	12	Cattle: 1 3 rd distal phalanx Bird: 1 coracoid with (?cat) tooth mark	Light to dark brown, mottling Large mammal: 1 rib, 2 long bone fragments Medium (1) mammal: 1 rib, 6 scraps

CONTEXT	QUANTITY	DESCRIPTION	TAPHONOMY
3140	15	Sheep: 1 1 st distal phalanx Bid: 1 long bone Horse: 1 distal radius, 2 distal ?femur	Medium brown, copper staining Large mammal: 1 rib, 4 scraps Medium (1) mammal: 5 scraps
3142	8	Cattle: 1 distal humerus Sheep: 1 scapula Bird: 1 carpometacarpus (large, ?goose)	Light brown, varied preservation and colouring, one fragment distinctly orange and "wet", strong mottling on scapula Large mammal: 3 scraps Medium (1) mammal: 1 rib, 1 long bone fragment
3144	3	Cattle: 1 proximal radius	Medium brown Large mammal: 2 scraps
3145	8	Cattle: 1 distal metapodial, 1 jaw fragment with teeth, 1 split and charred astragalus, 1 tarsal Pig: 1 jaw fragment with teeth	Light to medium brown Large mammal: 3 scraps
PH 26	4	Large mammal: 2 vertebrae, 1 scapula Medium (1) mammal: 1 rib	Medium brown
PH 33	2	?Roe deer: 1 juvenile metatarsal Large mammal: 1 long bone	Medium brown, metatarsal has grey hue, long bone yellow hue
PH 47	4	Bird: 1 femur Large mammal: 3 ribs	Medium brown, grey hue
PH 56	2	Sheep: 1 mandible fragment	Dark brown Large mammal: 1 ?worked fragment

Table 15 Animal bone by context

CONTEXT	CATTLE	HORSE	LARGE MAMMAL	PIG	SHEEP	GOAT	ROE DEER	MEDIUM MAMMAL	DOG	CAT	FISH	BIRD	SMALL MAMMAL	TOTAL
3000	8		17		19			24				2	2	72
3001	2				1							1		4
3023	1		14									3		18
3025	15		14	4	25			17				5		80
3026	12		61	9	9			44	1	1	1	6		144
3027	7		11	2	3			5				3		31
3029	6		5	1				1			1			14
3031	18		23	5	15		3	41	2		1	2	2	112
3032	10		16	1	9			25				2		63
3033	1		6		6			14				1		28
3037	3		4	2			3	2						14
3038	14		34		9			10				2		69
3043	13			4	22			90		1	15	8	16	169
3045	1		8		1									10
3047			2	1	1			1						5
3048	14		14	2	7			3				1	1	42

CONTEXT	CATTLE	HORSE	LARGE MAMMAL	PIG	SHEEP	GOAT	ROE DEER	MEDIUM MAMMAL	DOG	CAT	FISH	BIRD	SMALL MAMMAL	TOTAL
3050	19	2	47	2	16			18				2		106
3052	18		70	8	15			41						152
3053	2		18	1				6				1		28
3055	7		13	1	6			16				3		46
3056	3		4	1				4				3		15
3057	11		10		3		6	9	1			4		44
3058	3		4	1								1		9
3060	3		14	2	2			7	1?			2		31
3062	6		15	4	3			4			1	5		38
3064	5		4		4			3			2			18
3067			1					2						3
3068	5		1	1				1						8
3069	1											1		2
3070	1		2											3
3071			1											1
3072	2													2
3074	2		2									1		5

CONTEXT	CATTLE	HORSE	LARGE MAMMAL	PIG	SHEEP	GOAT	ROE DEER	MEDIUM MAMMAL	DOG	CAT	FISH	BIRD	SMALL MAMMAL	TOTAL
3076			1		2			11	1?			1		16
3078			5					3				3		11
3080	7	1	3	2				6			1	1		21
3081			1					1	1?			1		4
3082	2		2	1				2						7
3084	4		3											7
3092	4													4
3094	9		24	1	3			18		1	4	13	1	74
3096			2	2	1							2		7
3098	1		9					6				1		17
3102	3		6	2	2			5						18
3104	1		1					4				3		9
3106	5		4	1	2			5				2		19
3107								1						1
3109			3											3
3110	10		33		5									48
3114	2				1									3

CONTEXT	CATTLE	HORSE	LARGE MAMMAL	PIG	SHEEP	GOAT	ROE DEER	MEDIUM MAMMAL	DOG	CAT	FISH	BIRD	SMALL MAMMAL	TOTAL
3116	3		8	2	4									17
3119	2		8		1									11
3126	2		7					1						10
3128								2						2
3130	1		16										1	18
3131	1		3					7				1		12
3140		3	5		1			5				1		15
3142	1		3		1			2				1		8
3144	1		2											3
3145	4		3	1										8
PH 26			3					1						3
PH 33			1				1?							2
PH 47			3									1		4
PH 56			1		1									2

Table 16 Shell from Guildhall, York

CONTEXT	BELON OYSTER <i>Ostrea edulis</i>	COMMON COCKLE <i>Cerastoderma edule</i>	GARDEN SNAIL <i>Cornu aspersum</i>	TOTAL
3000	2	1		3
3025	2			2
3026	1			1
3031	7		2	9
3038	1			1
3043	3			3
3047	1			1
3048	4			4
3050	6			6
3052	1			1
3053	2			2
3055	2			2
3056	1			1
3057	2			2
3062	3			3
3094	3			3
3102	1			1
3106	1			1
3109	1			1
3110	1			1
3116	2			2
PH 56	2			2

4 CONCLUSION

The animal bone recovered from York Guildhall contained mostly mammalian bone, and consists of domestic taxa such as cattle, sheep, pig, horse, roe deer, cat, dog and common domestic bird species such as chicken or geese, as well as fish and shell from edible mollusc taxa.

Most of the assemblage seems to be consistent with undifferentiated domestic refuse. While some saw marks and cuts were present, no extensive evidence for specialised butchery was

found. The preservation of the bones was variable and bones were occasionally stained with metal or cress concretions, which may further indicate dumping of domestic waste.

5 RECOMMENDATIONS FOR FURTHER RESEARCH

The collection of animal bone has limited potential for further research. The animal bone does not reflect any specific activity taking place on the site and while in a fair condition, most elements are incomplete or fragmented, and most contexts seem to have been disturbed at some point post-deposition.

6 RECOMMENDATIONS FOR RETENTION/DISCARD

It is recommended that the animal bone collection is discarded after recording according to museum disposal guidelines. Some of the gnawed elements may be worth retaining for educational or display purposes.

7 REFERENCES

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O'Connor, T. (2008). *The Archaeology of Animal Bones* Texas; Texas A&M University Press

Shipman, P., Foster, G., Schoeninger, M. J. 1984. 'Burnt bones and teeth: an experimental study of colour, morphology, crystal structure and shrinkage', *Journal of Archaeological Science* 11, pp. 307-325.

Stiner, M. C.; Kuhn, S. L.; Weiner, S.; Bar-Yosef, O. 1995. 'Differential burning, recrystallisation, and fragmentation of archaeological bone', *Journal of Archaeological Science* 22, pp.223-227.

PLATES



Plate 1 Section 1. South-west facing. Scale units 100mm and 500mm.



Plate 2 Context 3013 type 10 painted plaster no5. Scale unit 10mm.



Plate 3 Section 4. South-west facing. Scale units 100mm and 500mm.



Plate 4 Section 2. North-east facing. Scale units 100mm and 500mm.



Plate 5 Cut of pit C3065 of G126. Looking south-west. Scale unit 100mm.



Plate 6 Wall 3088 of G119. Looking south-south-west. Scale unit 500mm.



Plate 7 C3097 of G130. Looking south-east. Scale unit 100mm.



Plate 8 C3017 of G114. Looking south-west. Scale unit 500mm.



Plate 9 C3012 of G121. Looking north-east. Scale unit 500mm.



Plate 10 Section 3. South-west facing. Scale units 100mm and 500mm.



Plate 11 G107. Looking north-west. Scale unit 100mm.



Plate 12 Northernmost Buttress C3044 of G110. Looking west. Scale unit 100mm.



Plate 13 Shot of demolition rubble slumping into disturbed graves. Looking north-east. Scale unit 500mm.



Plate 14 G102. Looking east. Scale unit 500mm.

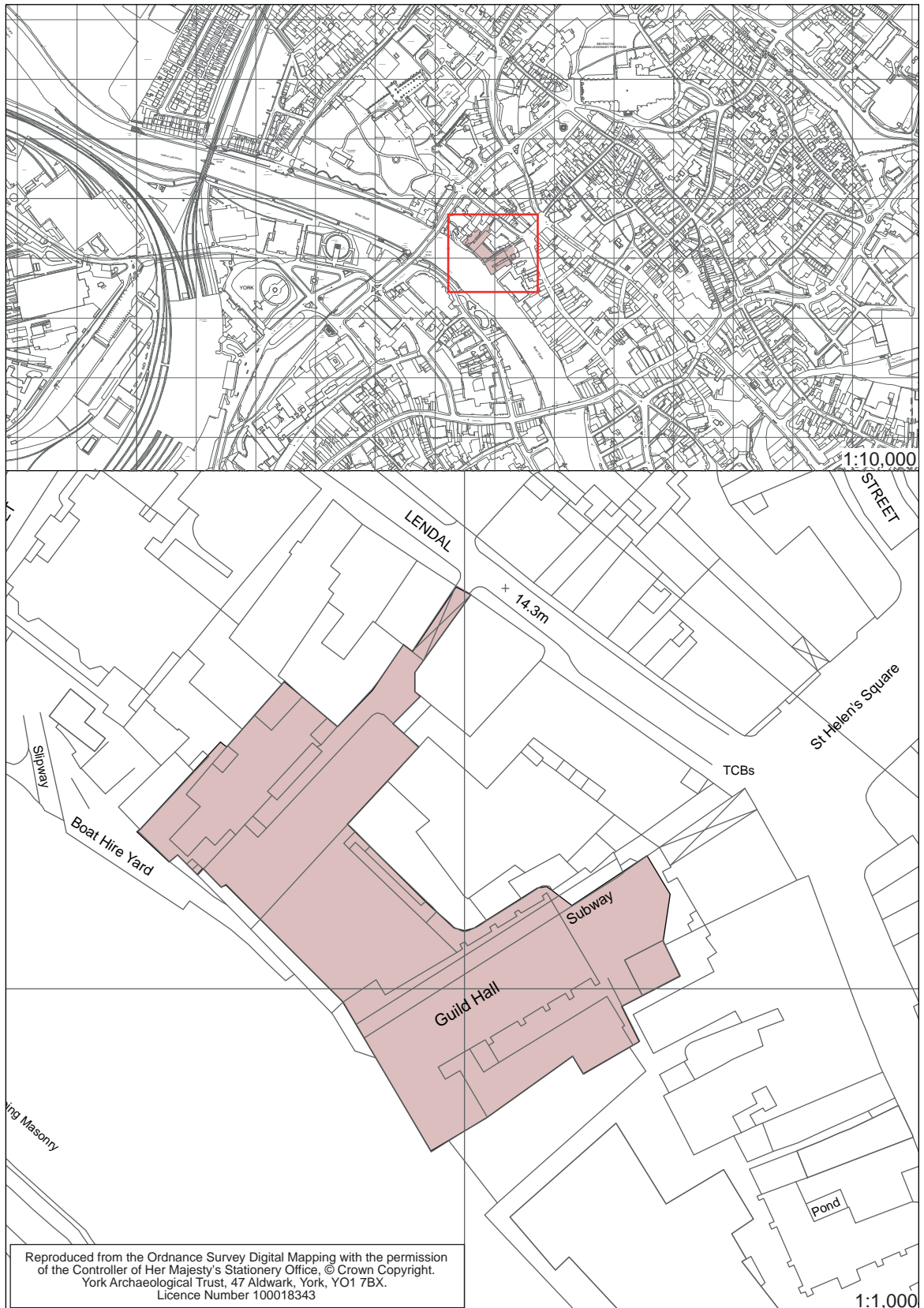


Figure 1 Site Location

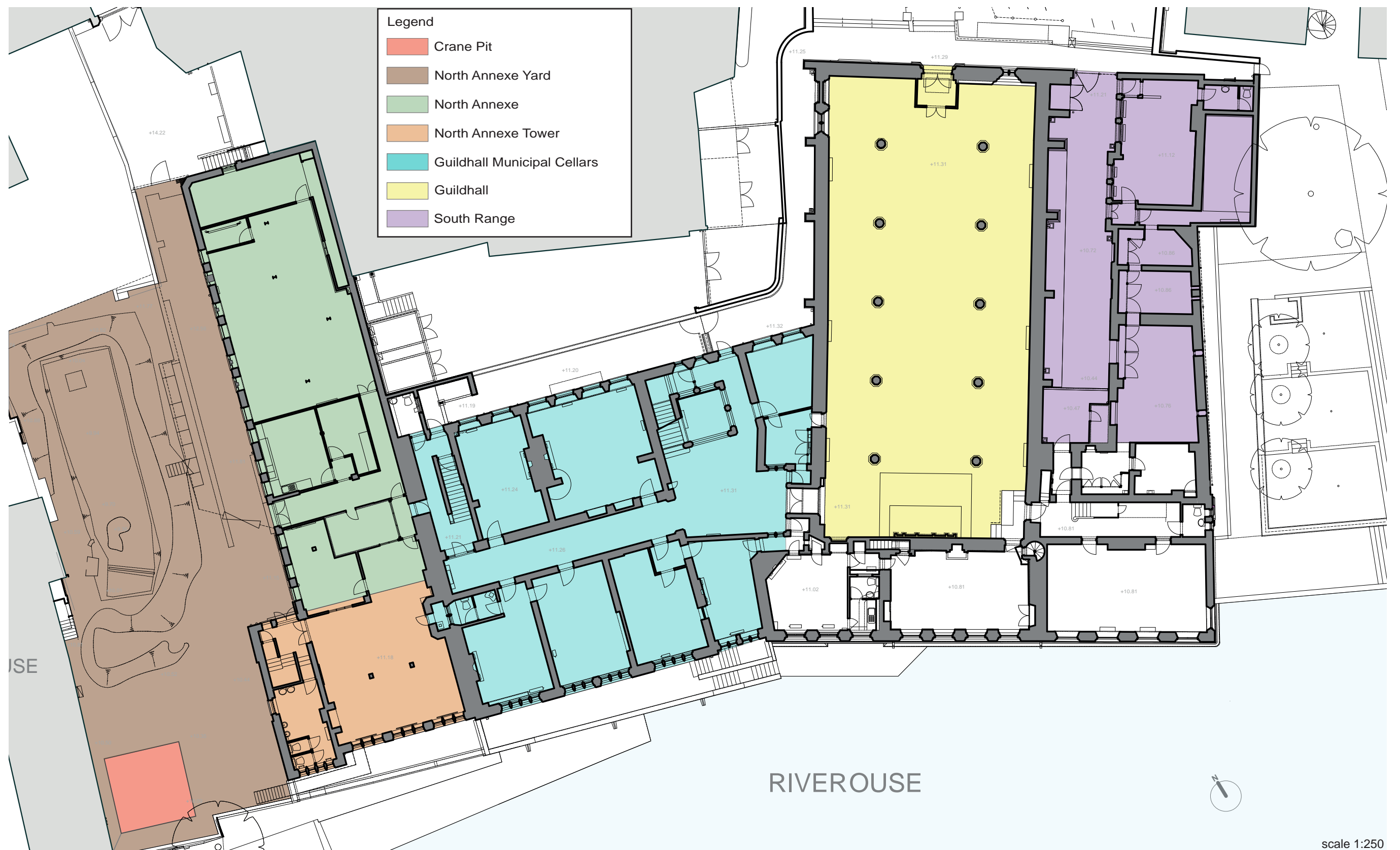


Figure 2. 2019-2020 Guildhall WB area locations (after drawing 16/01971/FULM - AL(0)0400.P5)

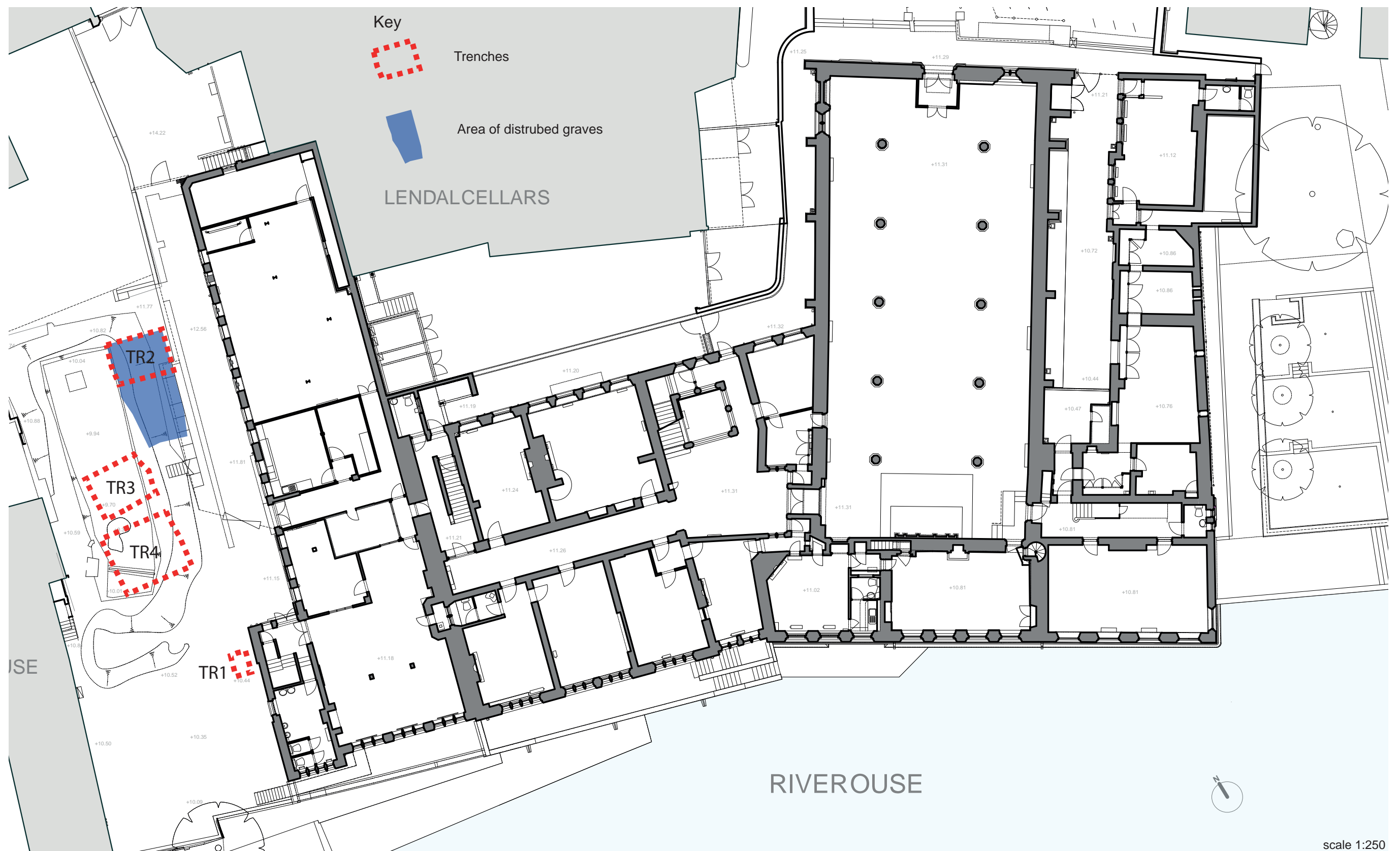


Figure 3. North Annexe excavation trench locations (after drawing 16/01971/FULM - AL(0)0400.P5)

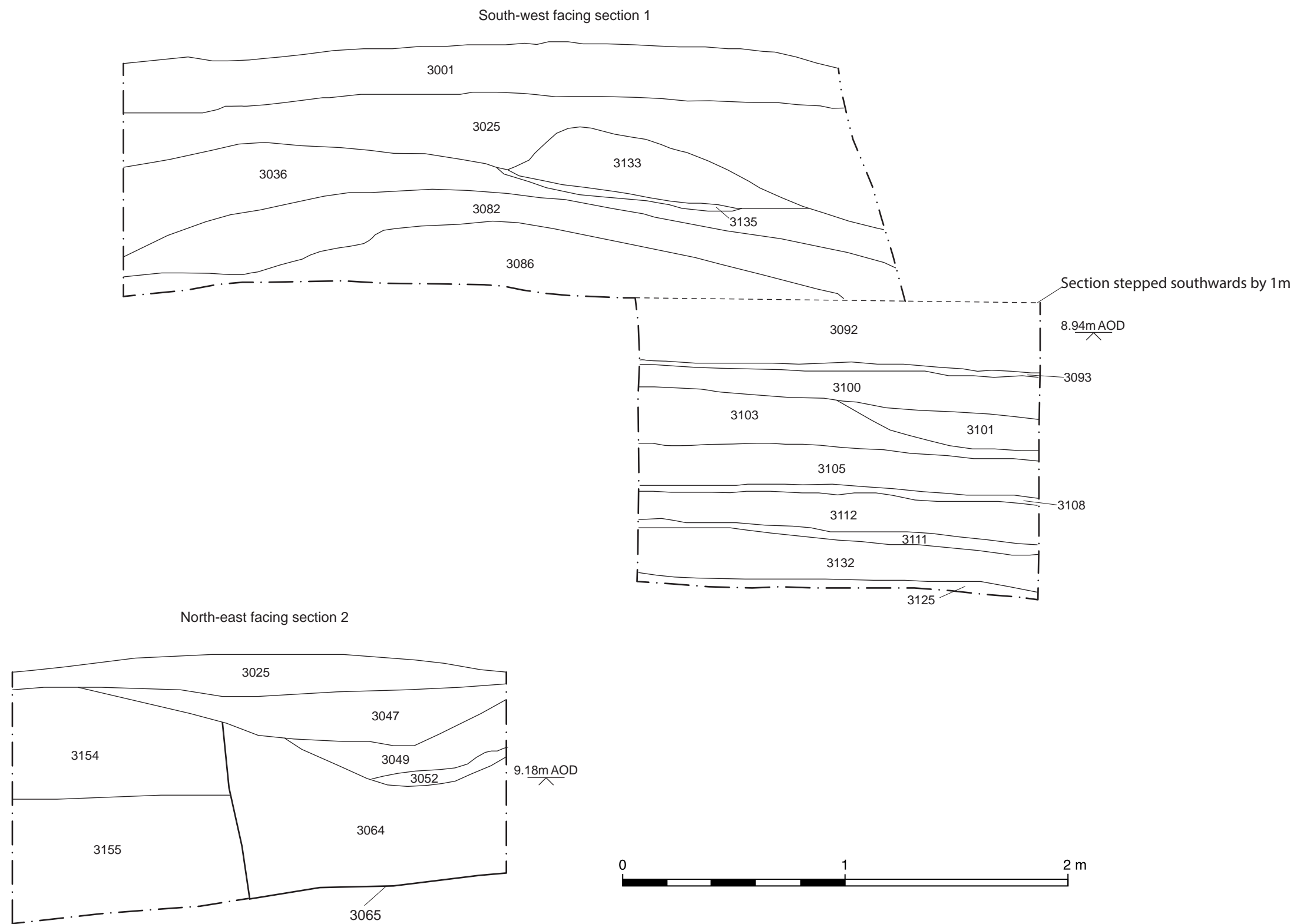


Figure 4 Sections 1 and 2

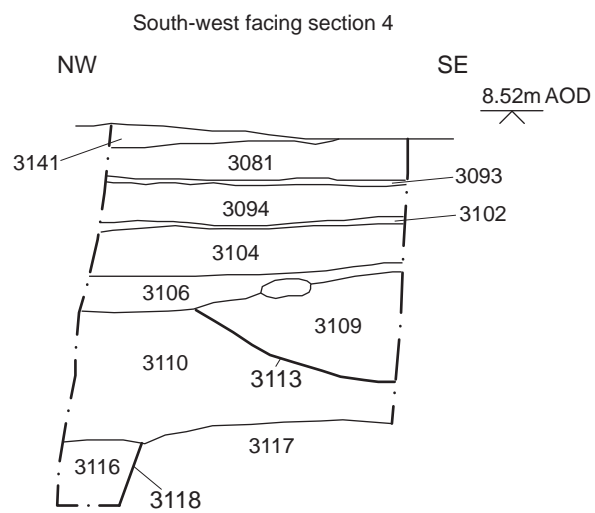
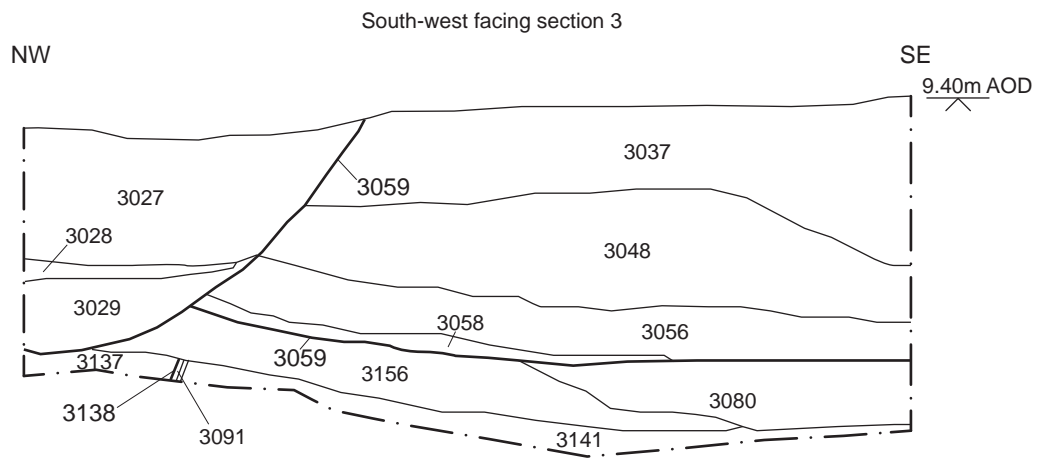


Figure 5 Sections 3 and 4

WRITTEN SCHEME OF INVESTIGATION



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**WRITTEN SCHEME OF INVESTIGATION FOR:
YORK GUILDHALL 2020 WATCHING BRIEF AND EXCAVATION**

Site Location: York Guildhall
NGR: SE 6066 5193
Proposal: Infrastructure
Planning ref: 16/01971/FULM
Prepared for: CYC
Document Number: 2020/72
Archival Accession No: Pending

Version	Produced by:		Edited by:		Approved by:	
	Initials	Date	Initials	Date	Initials	Date
1	IDM	05/06/20	IDM	15/06/20	IDM	15/06/20

Version	Approved on behalf of Local Authority by:	
	Curator	Date
1	Claire MacRae, CYC	Pending

CONTENTS

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Abbreviations

AF	Architectural Fragment
BF	Bulk Find
BGL	Below Ground Level
CIfA	Chartered Institute for Archaeologists
CYC	City of York Council
EDM	Electronic Distance Measurement
GPS	Global Positioning System
HER	Historic Environment Record
ICON	The Institute of Conservation
NGR	National Grid Reference
OD	Ordnance Datum
OS	Ordnance Survey
SF	Small Find
TST	Total Station Theodolite
WSI	Written Scheme of Investigation
YAT	York Archaeological Trust
IS	Investigation Supervisor (WhiteYoungGreen, WYG)
UDM	Updated Deposit Model

1A NON-TECHNICAL SUMMARY

This written scheme of investigation (WSI) updates an earlier document prepared by YAT for this project (Reeves and Milsted 2017; YAT 2017/115a).

This WSI details the proposed methodology for the archaeological watching brief and excavation required by CYC to support the determination of application number 16/01971/FULM for York Guildhall (Figure 1; SE 6006 5193).

The previous WSI, YAT 2017/115a, provided for an evaluation in the North Annexe building and a watching brief on all other works. This WSI provides an additional methodology and rationale for an excavation in the area of the new North Annexe building and a continuing watching brief, following the discovery of significant archaeological features and deposits during the current watching brief.

The work will be carried out in accordance with the brief and this WSI, and according to the principles of the Chartered Institute for Archaeology (CIfA) Code of Conduct and all relevant standards and guidance.

2A THE CONTEXT OF THE PROJECT

The Project

The re-development of the Guildhall complex is being undertaken by CYC to create suitable office space and enhance public access to the Guildhall and associated buildings.

The site

The of the 2020 works is the footprint of the former North Annexe building and the adjacent 'hutments' area (Figure 1).

The 2020 investigation

On 5th May 2020, under the watching brief provided for in YAT 2017/115a, suspected medieval structures and burials were encountered during the removal of the former North Annexe building foundations.

In consultation with the City of York Archaeologist, Claire MacRae, the area was stripped under archaeological supervision to define the archaeological features and deposits, assess the risk posed by the proposed piling plan and devise a mitigation strategy.

On 29th May 2020, a 3-week (plus 1 week contingency) programme of mitigation was agreed with the City of York Archaeologist, Claire MacRae (Figure 1):

- Excavate human burials
- Three trenches to address specific research questions
- Investigate pile locations for further archaeological impact
- Detailed borehole survey and deposit model
- On-going watching brief

This WSI has been written with reference to the following CYC minimum requirements documents: *Minimum Requirements for an Archaeological Evaluation* (2019); *Archiving (for CYC projects only)* (2019); *Health and Safety* (2019).

National Policy

In March 2012 the Government published the National Planning Policy Framework (NPPF) in an effort to make the overall planning system less complex and more accessible. This document was revised in 2019 and in this document Chapter 16 (paras. 184–202) titled “Conserving and enhancing the historic environment” deals with archaeological and historic issues. This section supersedes the previous planning legislation, Planning Policy Statement 5: “Planning for the Historic Environment” (PPS5).

Regional and Local Policy

City of York Council is currently working towards a new Local Plan that is fully compliant with NPPF and other relevant statutes.

The “Local Plan Publication Draft and Proposals Map” were considered by the Local Plan Working Group in September 2014. Their views were reported to Cabinet and the drafts were approved for consultation. The “Local Plan Publication Draft and Proposals Map” states its vision and outcomes are to: “...deliver sustainable patterns and forms of development to support this ambition and the delivery of the city’s environmental and social objectives. This will include ensuring that the city’s spaces and archaeology can contribute to the economic and social welfare of the community whilst conserving and enhancing its unique historic and natural environmental assets”.

In October 2014, the consultation was halted to allow further work to be undertaken. In September 2016 the “Local Plan Preferred Sites Document (2016) and supporting evidence” was approved (https://www.york.gov.uk/info/20051/planning_policy/710/new_local_plan - accessed 15/01/18).

Archaeology and heritage designations

York is one of five cities that has been designated an Area of Archaeological Importance (AAI) under part 2 of the 1979 Ancient Monuments and Archaeological Areas Act. The eastern part of the study area lies within York’s (AAI) City Centre area.

There are no registered battlefield sites or registered Historic Parks and Gardens within the study area.

Scheduled Monuments

There are no scheduled monuments located within the boundary of the study area. However located c.70m north-west and west the boundary are the York City Walls, a listed scheduled monument which comprised the medieval defences of the historic core of York (List entry number 1259262), and St Mary’s Abbey, which comprises the Museum Gardens and remains of the abbey (List entry number 1004919).

Listed Buildings

There are three listed buildings within the boundary of the study area. These are:

The Guildhall and Chamber Range, Atkinson block, Common Hall Lane and boundary wall containing entrance to lane (Grade I, List entry number 1257929).

The municipal offices and council chamber and Guildhall annex (Grade II*, List entry number 1257939)

The meeting room, former muniment room and cells of south side of Guildhall (Grade II, List entry number 1433732)

Bounding the site immediately to the north-east is Number 26 and the Lendal cellars public house (Grade II, List entry number 1257472).

Conservation Areas

Conservation areas are areas of special architectural or historic interest. This not only related to the buildings themselves but how all the features provide a distinctive environment and character.

The site lies within the Central Shopping Area, Character Area 11 of the York Central Historic Core Conservation Area

Regional and National Research Agendas

The results of the work to be undertaken will, as far as possible, be related to local and regional and national research agendas in accordance with Section 7 of *Yorkshire, the Humber and North East: A Regional Statement of Good Practice for Archaeology in the Development Process* (SYAS 2019).

The Archaeology and Development Study and the York Deposit Model

The site will be considered in the context of information derived from the York deposit model https://www.york.gov.uk/info/20216/archaeology/2485/york_deposit_model_data and Ove Arup Archaeology and Development Study.

https://www.york.gov.uk/downloads/download/1634/archaeology_and_development_study

Designations and Constraints

The site lies within the York Area of Archaeological Importance (AAI) as defined by the Scheduled Monuments and Archaeological Areas Act 1979.

It is the responsibility of the Principal Contractor (PC) to ensure that all permissions are obtained from statutory bodies and all access constraints are identified and mitigated in advance so that the site of the investigations can be accessed.

3A LOCATION, GEOLOGY AND TOPOGRAPHY

(Reeves/Milsted 2017/115a; Krawiec 2020)

The Guildhall site lies between Lendal and the River Ouse, overlooking the river and located immediately to the southwest of the Roman fortress defences. The suggested location of the Roman bridge across the Ouse may lie within the site, under the medieval Guildhall.

The North Annexe excavation site is located within the ground floor of the Guildhall Annexe. The site is generally level, however, the natural ground surface slopes steeply downwards from Lendal to the River Ouse. Ground level in Lendal is at about 14.3m AOD and mean summer river level of the Ouse is 5mAOD. The current flat nature of the site therefore indicates significant build-up of deposits and terracing of the valley slope.

The BGS records the underlying bedrock geology of the study area as the Sherwood Sandstone Group. This is overlain by a suite of glacially-derived deposits which have been modelled in detail by the BGS to the east of the current study area (Cooper et. al. 2007).

During the Late Devensian (the last ice age) the Vale of York was glaciated with the ice sheet moving south-eastwards across the area. The pre-Late Devensian surface of the bedrock was incised and eroded during the advance of the ice sheet with glacio-fluvial sands and gravels infilling the incised surface. As a consequence of subsequent erosion, these initial infilling deposits are preserved intermittently across the bedrock surface and are mapped as Sands and Gravels.

Overlying these deposits are the laminated sediments of a pro-glacial lake, the Hemingborough Formation, which formed when the ice margins impeded drainage of the region via the Humber Estuary. As the glaciation progressed the ice advance covered these lake sediments causing moraine deposits to accumulate. Moraine deposits form at the end and sides of the glacier and comprise the unconsolidated deposits of the Escrick Moraine Member. This moraine marks the longest standstill position of the ice sheet but is probably not the southernmost limit. It is suggested a rapid ice lobe surge progressed as far as Wroot near Doncaster before returning to a standstill position at Escrick.

As the ice began to retreat a second moraine complex was formed at York, classified as the Vale of York Formation and the York Moraine Member. Between the York and Escrick moraines a new lake formed infilling with sediment mapped as the Elvington Glaciolacustrine Formation. In addition, behind the York moraine a second smaller lake was also infilling, classified as the Alne Glaciolacustrine Formation.

The final retreat of the ice sheet caused the lakes to drain and wind-blown coversands developed which provide a discontinuous deposit across the Vale, termed the Brighton Sand Formation. In places this was incised during the Holocene by the course of several rivers. These river valleys, principally the Ouse and Foss, then infilled throughout the Holocene with Peat and Alluvium.

4.1 ARCHAEOLOGICAL AND HISTORICAL SUMMARY

The following summary is adapted from the 2017 WSI and a summary produced by YAT in support of an earlier phase of investigation at the site (Connolly, 2013).

More extensive information is available in the AOC Heritage Statement (Potten, 2016; AOC 51602).

The Guildhall site lies between Lendal and the River Ouse, overlooking the river and located immediately to the southwest of the Roman fortress defences. The suggested location of the Roman bridge across the Ouse may lie within the site, under the medieval Guildhall.

It has been suggested that the Lendal/ Coney Street/ Spurriergate street alignment follows that of a Roman road. The earliest reference to Coney Street (which used to include both Lendal and Spurriergate) is in the mid-12th Century. The name Coney Street probably has its origin in the Anglo-Scandinavian period although the route may have been in continual use since the Roman period.

The site lies within the boundaries of an Augustinian Friary, established in 1272. The Augustinian Friary grew to occupy a site bounded by the Guildhall, the River Ouse, Museum Street/Lendal Bridge and Lendal. The friary was dissolved in 1538 and its land granted to Sir Richard Gresham in 1545. Richard III stayed in the friary whilst he was Duke of Gloucester.

The friary buildings were demolished after the Dissolution and the site became open ground and gardens at the rear of buildings fronting onto Lendal. There is no evidence to allow a reconstruction of the layout of the medieval friary or the topography of the site during the friary's existence. However, an archaeological watching brief (immediately to the north-east of the hutment/North Annexe part of the site (YAT 1974.7) recorded evidence of burials which suggests that part of the cemetery or church was located in this part of the site. There is a possibility that burials extend into the North Annexe area.

In August 2014 AOC Archaeology Group was commissioned by City of York Council to undertake an archaeological evaluation of land at the 'Hutments' site, adjacent to the Guildhall, prior to the proposed redevelopment of the site (AOC 2015; YORYM:2014.384).

The archaeological excavation removed an initial 1.2m of deposits from across the site, primarily representing levelling deposits made up of late-medieval and post-medieval demolition material, as well as substantial quantities of re-deposited Roman pottery. A metal track created from this material probably during the 18th century was identified running down the site towards the River Ouse, connecting the riverside with the rear of the properties on Lendal. Two sections of medieval wall that are likely to have formed part of the friary were also discovered during the excavations of two 1m by 1m test pits, which took the depth of excavation down a further 0.8m. It is hoped that future work on the site will reveal more evidence for the medieval buildings, and potentially earlier activity. The only other extant structure relating to the friary is a section of medieval river wall which forms the western side of the site.

5A PRE-START REQUIREMENTS

The Principal Contractor (PC) will ensure that the site is fully accessible and is ready for evaluation. The client is responsible for ensuring that the site is secured with appropriate fencing or hoardings.

The PC will be responsible for ensuring that up-to-date service plans have been consulted and where appropriate for ensuring services have been disconnected or that extant live services are not impacted upon.

The PC will be responsible for ensuring that any existing reports (e.g. ground investigation, borehole logs, contamination reports) are made available to York Archaeological Trust prior to the commencement of work on site.

The PC will advise of any ecological or biodiversity issues which need to be taken into consideration.

The PC will advise of any contamination issues which need to be taken into consideration and it is assumed that the site has been properly tested for the presence of contaminants.

The PC will advise of any protected trees which must be avoided by the evaluation.

The PC has responsibility to advise if Japanese Knotweed is present on the site. Trenches will avoid Japanese Knotweed

YAT will give notice in writing of the start of works to City of York Archaeologist, Claire MacRae, at least seven days in advance.

The city archaeologist, Claire MacRae, may visit the site at any time with prior notice to monitor the archaeological excavation and recording

6Ā INVESTIGATION METHODOLOGY

The investigation will comprise the following elements:

- Recording and excavation of human burials
- Excavation of three trenches to investigate specific archaeological questions
- Investigation of proposed pile locations for archaeological constraints
- Borehole and hand-auger survey to recover detailed environmental samples
- A deposit model of the site

Please note that further stages of work or other mitigation measures could be required by the local authority, depending upon the results of the investigations.

The location of the works is shown in Figure 1. All works, including evaluation trenches and boreholes, will be accurately plotted by measurement to local permanent features shown on published Ordnance Survey maps using an EDM Total station or GPS unit. All measurements will be accurate to +/-100mm, and the trenches locatable on a 1:2500 Ordnance Survey map to ensure our interventions can be independently relocated in the future.

6.1Ā Aims and Objectives

The aims of this investigation are to:

- Identify the presence, and determine the character, extent, state of preservation, date and importance of any archaeological remains present, of all periods.
- Assess the likely extent and levels of truncation across the site.
- to provide information that will enable the remains to be placed within their local, regional, and national context and for an assessment of the significance of the archaeology of the proposal area to be made

- to provide information to enable the local authority to decide any requirements for further archaeological mitigation for the site
- to ensure the public are afforded the opportunity to learn about the works and the results of the investigations carried out
- to contribute to the overall deposit model for York

YAT is a ClfA Registered Organisation and is committed to undertaking all work in a professional manner in line with ClfA Standard and Guidance. This WSI has been written to comply with the standards and guidance of both ClfA and the CYC archaeological curator.

The Chartered Institute for Archaeologists (ClfA 2014a, 4) standard definition of an archaeological evaluation is

‘An archaeological field evaluation will determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of Conduct and other relevant regulations of ClfA.

The definition of archaeological field evaluation is a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their significance in a local, regional, national or international context as appropriate.’

6.2A INVESTIGATION

General methodology

Ground surfaces may be broken out using a mechanical excavator fitted with a pneumatic breaker or floor cutter operated by the IS contractors. Deposits interpreted as modern made ground or overburden, topsoil or other superficial fill materials may be removed using a mechanical digger fitted with a 6ft/1.80m wide toothless ditching bucket. Mechanical excavation equipment will be used judiciously, under archaeological supervision.

Generic demolition and make-up layers dating to the post-medieval period and later will be recorded primarily from the trench sections. In the event of more significant features such as structures or surfaces being present, mechanical excavation will briefly cease to allow any necessary recording to take place. Upon completion, machine excavation will then continue. Arisings will be stockpiled in a suitable location at a safe distance from each intervention. Trenches will be recorded and backfilled as soon as possible so that they do not remain open any longer than is necessary.

Machine excavation will cease once undisturbed archaeological deposits are thought to have been reached or at 1.20m BGL if no archaeological remains are found.

If archaeological deposits are found excavation will normally proceed by hand. Areas of intensive modern disturbance will be given a low priority in excavation. Where practicable, the

fills of these features will be removed by mechanical excavator. Where deep homogenous deposits, or deposits such as rubble infill, are encountered, these may be carefully removed by machine with the approval of Claire MacRae, CYC principal archaeologist.

Trenches will be a safe distance from pylons, overhead power lines and known services. A cable detector, operated by a suitably qualified and experienced IS contractor, will be used to reduce the risk of disturbing unknown services.

The use of powered digging equipment may sometimes be appropriate to remove hard building materials or deep intrusions such as brick or concrete floors or footings. Powered digging equipment will only be used with the agreement of Claire MacRae, CYC principal archaeologist, and will not be used to cut arbitrary test pits through archaeological deposits.

All trenches will be sufficiently cleaned by hand to enable potential archaeological features to be identified and recorded. Areas will be recorded as sterile if devoid of archaeological material, the stratigraphic sequence will be recorded after which investigation of those areas will cease.

Trenches will be stepped or battered if necessary to excavate safely should ground conditions be deemed unstable by YAT staff.

Archaeological features will be fully investigated to the point at which underlying natural deposits are reached or to the depth specified in the brief.

Human Burials

All human burials will be exposed, recorded and lifted in accordance with YAT recording systems and under the provisions of the Licence for the Removal of Human Burials 20-0093, issued by the Ministry of Justice on June 1st 2020.

The rationale for the excavation of human burials is that they cannot be preserved in situ during the proposed groundworks.

Trenches 2, 3 and 4

Three trenches will be excavated to investigate specific areas of the site. A previously excavated trench during these works was undertaken by YAT in 2017 and designated Trench 1.

Trench 2

Trench 2 will investigate the area beneath the burials (Figure 1). The aims of this trench are:

- To ensure no further human remains are present
- To investigate the relationship between two different elements of the large limestone wall
- To investigate the relationship between the large limestone wall and a buttress
- To clarify the build sequence and purpose of the limestone wall
- To investigate and date possible medieval deposits pre-dating the limestone wall
- To investigate and date possible Roman deposits pre-dating the limestone wall

Trench 3

Trench 3 will enlarge a machine-cut sondage in the centre of the site, adjacent to the large limestone wall (Figure 1). The aims of this trench are:

- To identify and date the construction point of the large limestone wall
- To ascertain the depth of the wall foundation
- To assess the northern end of a possible second limestone structure
- To clarify if further piling obstructions are present in this area
- To investigate and date the deposits underlying the wall

Trench 4

Trench 4 is located just to the south of trench 3 (Figure 1). The aims of this trench are:

- To investigate a major change in the build sequence of the large limestone wall
- To clarify the construction points and dates of the large wall and the smaller limestone structure
- To recover sufficient stratigraphic information to relate the two structures
- To investigate and date deposits underlying these structures

Investigation pile locations

To the north of the large limestone wall is an area currently beneath a baulk of soil at the northern boundary of the site where it is proposed to locate some of the piles for the new building.

If these pile positions cannot be moved, then further investigation of this area will be necessary to:

- Ensure no further human burials are present
- Ascertain if the large wall continues to the north and intersects the pile position

If the pile locations can be moved to less sensitive locations then this phase of investigation will not be required.

Borehole survey and Deposit Model

2no hand-augered boreholes and up to 6no machine-driven windowless sample (WS) boreholes will be cored in a transect from north-south through the centre of the North Annexe excavation area (Figure 1). The data recovered from this survey will be analysed for detailed stratigraphic and environmental information about this part of the site, and the information used to develop a local deposit model for the area, which can be incorporated into the City of York deposit model.

The aims of the borehole survey are:

- To record a transect of deposits perpendicular to the River Ouse

- To recover environmental samples for detailed analysis of sediment type, plant and insect remains and pollen data
- To contextualise the excavated archaeology of the site with data from deeper deposits
- To assess the nature and condition of the entire deposit sequence on the site
- To model this data and inform future management and research in York's historic core

7A RECORDING METHODOLOGY

Primary excavation records

All archaeological features will be recorded using standardised pro-forma record sheets. Plans, sections and elevations will be drawn as appropriate.

Archaeological contexts will be planned at a basic scale of 1:50, with individual features requiring greater detail being planned at a scale of 1:20. Larger scales will be utilised as appropriate. Sections drawings will be made at a basic scale of 1:10 or 1:20 depending on the size of the feature. All drawings will be related to Ordnance Datum. Where it aids interpretation, structural remains will also be recorded in elevation.

Archaeological contexts will be allocated unique numerical identifiers and described in full on a pro-forma context record sheet in accordance with conventional archaeological record methods. All records will be checked and indexes of records compiled.

All appropriate records will be made and kept.

All records will be indexed, ordered, quantified, and checked on site for completeness and consistency.

The stratigraphic sequence will be assessed and a statement made on the nature of deposition, dating and phases and periods of land use at the site.

Finds

All finds will be collected and handled following the guidance set out in the ClfA guidance (2014b) for archaeological materials. Unstratified material will not be kept unless it is of exceptional intrinsic interest. Material discarded as a consequence of this policy will be described and quantified in the field. Any material discarded as a consequence of this policy will be described and quantified in the field. This site is known to have been the location of an important Roman cemetery and it has a long history of potentially large-scale reworking and landscaping having been used as farm land throughout the medieval and post-medieval periods and as a result of the construction of the railway from the 19th century. Unstratified finds of all periods are therefore highly likely to be recovered and particular care will be taken to observe mechanical excavation to recover any such items.

A metal detector may be used if appropriate and thought to be necessary.

Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. Any dense/discrete deposits will

have their limits defined on the appropriate plan. The material archive will be assessed for its potential to contribute to artefactual research.

All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, to ensure that minimal deterioration takes place and that all their associated records are complete, as detailed in the Watkinson and Neal (1998) First Aid for Finds, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner. Any gold and/or silver objects, and groups of coins from the same finds, over 300 years old, as well as prehistoric base-metal assemblages will be reported as Treasure in accordance with the Treasure Act 1996. Anything else found which could be Treasure, under the Treasure Act 1996, will be reported to the local coroner within 14 days of discovery. Any treasure will be reported to the coroner and to The Portable Antiquities Scheme Finds Liaison Officer whose guidance will be sought on the Treasure Act procedures.

All artefacts and ecofacts recovered from the evaluation will be assessed, and where appropriate processed, analysed, drawn and published, by a person or organisation with skills and expertise relating to the artefacts and ecofacts.

Samples

A sampling strategy (e.g. dendrochronology, soil micromorphology, monolith samples, C14 dating, etc.) will be agreed in advance with the City Archaeologist and the Historic England Science Advisor, 37 Tanner Row York and approved in writing by York City Council. All sampling will be in accordance with Historic England guidance (2015; 2011; 2016; 2020).

The advice of the HE Regional Science Advisor will be sought for any other aspects of archaeological science, including dating, that might arise on this site. Their recommendations will be followed and confirmation of the adoption of their recommendations supplied in writing to Assistant Director (City Development and Sustainability), City of York Council, West Offices, Station Rise York YO1 6GA. In addition, YAT specialists Kristina Krawiec, David Knight and Ian Panter will be available for advice on waterlogged remains and geoarchaeology sampling. Additional specialists available for sampling advice are listed in Section 17.

The sampling regime may include the following types, as well as specialist samples described in the detailed costing, as appropriate.

These are described below:

- Bulk-sieved Sample (BS). Sample size will depend upon the context/feature size, but should be up to 40–60 litres in size (if the context size allows). They are taken for the recovery of charcoal, burnt seeds, bone and artefacts. The samples will be processed (flotation) on site where possible with 1mm and 500micron sieves on a rack to collect the carbonised washover. The retents and flots will then be dried, sorted and assessed to advise the potential for further analysis.
- General Biological Sample (GBA): These are only taken if a deposit is waterlogged. A 10 litre sample size will be used (if the context size allows). These samples will be processed in the laboratory, to recover macrofossils and microscopic remains such as pollen and insects.
- Column monolith: Kubiena tin samples may be taken for soils and pollen analysis and to determine soil accumulation processes.

- Spot samples: these samples are taken as required. they may be contexts or material not suited to sieving, such as caches of seeds, pieces of eggshell or any specific finds of organic material. They may also be specialist samples (e.g. metallurgical samples or charcoal for radiocarbon dating).

Samples will be taken for scientific dating where necessary for the development of subsequent mitigation strategies. Material removed from site will be stored in appropriate controlled environments.

Environmental samples will be processed and assessed in accordance with HE guidance (2015; 2011; 2016)

Human remains

Should human remains be discovered they will be left in-situ, covered and protected pending notification of the discovery to Claire MacRae and the submission to the Ministry of Justice of an application for excavation. Exhumation of human remains will take place in compliance with environmental health regulations and only with a valid licence from the Ministry of Justice. An osteoarchaeologist will be available to give advice on site.

Any disarticulated human remains that are found will be recovered for potential analysis once the longer-term fieldwork is completed.

Articulated human burials will be defined and recorded but will remain in situ unless it is considered essential to remove them for dating purposes or to better understand the deposit sequence. Preservation in situ will be the preferred option in the short term until an appropriate and well-designed strategy is developed for controlled excavation. YAT will liaise with the IS and Claire MacRae in such instances and may call upon their osteoarchaeologist for advice. If excavation is required of in situ remains this will be carried out in accordance with the Burial Act 1857, with a Ministry of Justice exhumation licence in place, and with the guidance of McKinley and Roberts (1993) and APABE (2017).

Any excavated human remains will be assessed by osteoarchaeologist Malin Holst. Any grave goods or coffin furniture will be retained for further assessment.

8.2 COLLECTIONS STRATEGY

Unstratified material will not be kept unless it is of intrinsic interest.

All stratified material will be processed and retained in accordance with ClfA (2014b), Odom et al. (2019) and Sampson and Odom (2019).

A discard strategy will be agreed with the Yorkshire Museum once the assemblage has been collated and recorded. Discard will be carried out prior to deposition of the archive with the museum.

9.1 ARRANGEMENTS FOR THE IMMEDIATE CONSERVATION OF ARTEFACTS

YAT's conservation department will be contacted immediately should artefacts deemed vulnerable be uncovered during the works. Arrangements will be made for conservation staff to

visit the site and provide appropriate advice/assistance with the lifting of any such items. Any such items will be removed from the site to the YAT Conservation Laboratory as a matter of urgency and appropriate conservation work undertaken.

10Ā REINSTATMENT

The IS will be responsible for backfilling and reinstating trenches and boreholes.

11Ā POST-FIELDWORK ASSESSMENT OF DATA

The stratigraphic information, artefacts, soil samples, and residues will be assessed as to their potential and significance for further analysis and study. The material will be quantified (counted and weighted). Specialists will undertake a rapid scan of all excavated material. Ceramic spot dates will be given. Appropriately detailed specialist reports will be included in the report.

Materials considered vulnerable should be selected for stabilisation after specialist recording. Where intervention is necessary, consideration must be given to possible investigative procedures (e.g. glass composition studies, residues on or in pottery, and mineral-preserved organic material). Allowance will be made for preliminary conservation and stabilization of all objects and a written assessment of long-term conservation and storage needs will be produced. Once assessed, all material will be packed and stored in optimum conditions, in accordance with Leigh et. al. (1998), ClfA (2014b) and the Museums and Galleries Commission guidelines (1992).

All finds will be cleaned, marked and labelled as appropriate, prior to assessment. For ceramic assemblages, any recognised local pottery reference collections and relevant fabric codes will be used.

Allowance will be made for the recovery of material suitable for scientific dating and contingency sums will be made available to undertake such dating, if necessary. This will be decided in consultation with City Archaeologist, Claire MacRae.

12Ā REPORT PREPARATION

Upon completion of the site work, a report will be prepared to include the following:

- A non-technical summary of the results of the work.
- An introduction which will include the planning reference number, eight-figure grid reference and dates when the fieldwork took place.
- An account of the methodology and detailed results of the operation, describing structural data, archaeological features, stratigraphic sequences, associated finds and environmental data, and a concluding discussion.
- a description of each trial trench and the stratigraphic sequence therein
- a full description and interpretation of the archaeological sequence in boreholes and in evaluation trenches, including the waterlogged sequence, setting the site into the context of the known archaeology of the area

- an interpretation of the archaeological and research potential of the remainder of the site
- recommendations for further work
- A portfolio of photographs and drawings, including a detailed plan of the site accurately identifying the areas monitored, trench locations, selected feature drawings, and selected artefacts, and phased feature plans where appropriate. All plans will be drawn to scale and site levels in relation to Ordnance Datum will be provided.
- Site context matrix
- Specialist artefact and environmental assessment reports, where undertaken
- Reports on any further analyses, where produced
- A full archive index and catalogue giving details of the physical and digital archive location and destination (with accession number, where known).
- list of sources consulted
- A copy of the key OASIS form details
- A copy of the project WSI
- Additional photographic images will be supplied digitally

The report will be submitted in digital format to the commissioning body as well as direct to City Archaeologist, Claire MacRae for planning purposes and inclusion into the HER.

The archaeological finds from the site will be curated in accordance with the ClfA guidelines (2014b), Arts Council England Museum Accreditation Standard (2018), Collections Trust guidelines (2017), the Institute of Conservation (ICON) standards and YAT internal documents Odom et al. (2019) and Sampson and Odom (2019).

A field archive will be compiled consisting of all primary written documents, plans, sections and photographs will be prepared in compliance with ClfA 2014c. Catalogues of contexts, finds, soil samples, plans, sections and photographs will be produced. York Archaeological Trust will liaise with the Yorkshire Museum to establish the detailed curatorial requirements of the museum and discuss archive transfer and to complete the relevant museum forms. An archival accession number will be obtained from the museum and the curator will be afforded access to visit the site and discuss the project results if required.

The owner of the Intellectual Property Rights (IPR) in the information and documentation arising from the work, would grant a licence to the Local Authority and the museum accepting the archive to use such documentation for their statutory functions and provide copies to third parties as an incidental to such functions. Under the Environmental Information Regulations (EIR), such documentation is required to be made available to enquirers if it meets the test of public interest. Any information disclosure issues would be resolved between the client and the archaeological contractor before completion of the work. EIR requirements do not affect IPR.

The information contained in the evaluation report may enable decisions to be taken regarding the future treatment of the archaeology of the development site and any material recovered during the evaluation.

If further archaeological investigations (mitigation) take place, any further analyses (as recommended by the specialists), and following agreement with City Archaeologist, Claire

MacRae may be incorporated into the post-excavation stage of the mitigation programme unless such analysis are required to provide information to enable a suitable mitigation strategy to be devised. Such analysis will form a new piece of work to be commissioned.

13Ā DISSEMINATION PROPOSALS

A written synopsis of the evaluation will be submitted to the City of York Council no later than two months after the completion of work on site.

The results of the evaluation may be publicised locally e.g. by a presentation to be given at venues such as the Friends of YAT Lunchtime Lecture Series, the Yorkshire Philosophical Society Lectures or to local archaeology/history societies, as appropriate.

A full programme of post-excavation analysis and publication of artefactual and scientific material from the evaluation may be required by City Archaeologist, Claire MacRae even if no further fieldwork is to take place on the site. Post-excavation analysis and publication will be considered new work to be fully costed and commissioned.

If no further site works, analysis and publication are required, allowance will be made for the preparation and publication in a local and/or national journal of a short summary on the results of the evaluation and of the location and material held within the site archive.

A summary report accompanied by illustrations will be offered in digital format for publication in the Yorkshire Archaeology Journal (depending on Significance of results).

Reports will be supplied as part of the completion of an OASIS deposition to the Archaeological Data Service (ADS) <http://ads.ahds.ac.uk/project/oasis/> to be accessible over the internet (see Section 16 Archive Deposition)

14Ā ARCHIVE DEPOSITION

A field archive will be compiled comprising all primary written documents, plans, and sections. The archive will be deposited at the Yorkshire Museum and will be curated in compliance with the following documentation: Arts Council England (2019), ClfA (2014b; 2014c), Collections Trust UK (2017) and ICON (*Caring-for-your-collection*, undated documentation). Internal YAT guidelines on collections management (forthcoming), together with Odom et al. (2019) and Sampson and Odom (2019) will also be adhered to. The Yorkshire Museum charges £50.00 per box for the long-term curation of the archaeological archive.

ADS Digital archiving charges will be ascertained upon instruction to proceed.

The archive will also catalogue contexts, finds, soil samples, plans, sections and photographs. York Archaeological Trust will liaise with the Yorkshire Museum before fieldwork begins to establish the curatorial requirements of the museum and discuss archive transfer and to complete any documentation required. The relevant museum curator would be afforded access to visit the site and discuss the project results.

In accordance with the standards and guidance of CYCHER, upon completion of the project an online PDFs of the project reports will be uploaded to the Online Access to Index of Archaeological Investigations (OASIS) (<http://ads.ahds.ac.uk/project/oasis/>).

All the site records will be digitised and are stored on the YAT intranet system, which is backed up daily to prevent loss. The contents of the site archive will be summarised as an Appendix within the report.

The owner of the Intellectual Property Rights (IPR) in the information and documentation arising from the work, would grant a licence to the Local Authority and the museum accepting the archive to use such documentation for their statutory functions and provide copies to third parties as an incidental to such functions. Under the Environmental Information Regulations (EIR), such documentation is required to be made available to enquirers if it meets the test of public interest. Any information disclosure issues would be resolved between the client and the archaeological contractor before completion of the work. EIR requirements do not affect IPR.

15A STAFFING

The fieldwork will be undertaken by:

Project Officer: Clare Jackson-Slater

Project Supervisor: Thomas Coates

Specialist staff available for this work:

Geoarchaeologist – K. Krawiec, YAT (YAT, Trent and Peak)

Geoarchaeologist – D. Knight (YAT, Trent and Peak)

Conservation/anoxic deposits – I. Panter, YAT

Micromorphology – J. McKenzie; L. Shillito (Earthslides facility, Newcastle University)

Human Remains – M. Holst, York Osteology Ltd

Palaeoenvironmental remains – J. Carrott, Palaeoecology Research Services Ltd

Head of Curatorial Services – C. McDonnell, YAT

Finds Researcher – N. Rogers, Freelance

Pottery Researcher – A. Jenner, YAT

Ceramic Building Materials – J. M. McComish, YAT

Flints – G. Loffman, YAT

Timbers/wood remains – S. J. Allen, YAT

Finds Officers – N. Van Doorn, YAT

Archaeometallurgy / Industrial Residues – R. Cubitt and Dr R. Mackenzie, Freelance

The CVs of the YAT staff involved in the project can be provided if required.

16A STATEMENT OF CPD WITHIN THE PROJECT

Training and CPD built into the project may include:

- Toolbox Talks on archaeology, environmental archaeology, geoarchaeology for YAT and other contractors on site, should there be interest.

17A STATEMENT OF COMPLIANCE

YAT is a ClfA registered organisation and undertakes work in compliance with all ClfA professional standards and regulations. In addition to the documentation specifically mentioned in the text above, YAT also works in compliance with the following documentation (in the interests of brevity these are not repeated in the references section below).

Department for Communities and Local Government, 2019. *National Planning Policy Framework*
Historic England (formerly English Heritage)

—2002. *Graphical and Plane Table Survey or Archaeological Earthworks*

<https://historicengland.org.uk/images-books/publications/graphical-and-plane-table-survey-archaeological-earthworks/>

—2006. *Guidelines on the X-Radiography of Archaeological Metalwork*

<https://historicengland.org.uk/images-books/publications/x-radiography-of-archaeological-metalwork/>

—2007. *Understanding the Archaeology of Landscape – a Guide to Good Recording Practice*

<https://historicengland.org.uk/images-books/publications/understanding-archaeology-of-landscapes/>

—2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation.*

<https://historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/>

—2015. *Archaeometallurgy. Guidelines for Best Practice*

<https://historicengland.org.uk/images-books/publications/archaeometallurgy-guidelines-best-practice/>

—2015. *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*

<https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/>

—2015. *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*

<https://historicengland.org.uk/images-books/publications/morphe-project-managers-guide/>

—2015. *Where on Earth are We? The Role of Global Navigation Satellite Systems (GNSS) in Archaeological Field Survey*

<https://historicengland.org.uk/images-books/publications/where-on-earth-gnss-archaeological-field-survey/>

—2015. *Digital Image Capture and File Storage: Guidance for Best Practice*

<https://historicengland.org.uk/images-books/publications/digital-image-capture-and-file-storage/heag059-digital-images/>

—2016. *Preserving Archaeological Remains. Decision-taking for Sites under Development*

<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

—2019. *Animal Bones and Archaeology – Recovery to Archive*

<https://historicengland.org.uk/images-books/publications/animal-bones-and-archaeology/>

—2019. *Piling and Archaeology. Guidelines and Good Practice*

<https://historicengland.org.uk/images-books/publications/piling-and-archaeology/>

—2020. *Deposit Modelling and Archaeology: Guidance for mapping buried deposits*

<https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/>

For current Historic England Guidance see:

<https://historicengland.org.uk/advice/latest-guidance/>

<https://historicengland.org.uk/advice/technical-advice/archaeological-science/>

RCHME, 1999. *Recording Archaeological Field Monuments – a Descriptive Specification*

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A. and Fassbinder, J., 2016. *EAC guidelines for the use of geophysics in archaeology: Questions to ask and points to consider*.

Standing Conference of Archaeological Unit Managers (SCAUM), 2007. *Health and Safety in Field Archaeology*.

South Yorkshire Archaeology Service (SYAS), 2019. *Yorkshire, the Humber & the North East: A Regional Statement of Good Practice for Archaeology in the Development Process*

18Ā RESEARCH VALUE OF THE PROJECT

In accordance with ClfA, Historic England guidance and the regional statement of best practice (SYAS 2019).

The data derived from this project will contribute to the wider City of York deposit model.

19Ā STATEMENTS RELATING TO PUBLIC PARTICIPATION AND BENEFIT

The general public has a strong interest in archaeological issues. Excavations, both large and small, often attract a great deal of public interest. They also represent an opportunity for people

to experience at first hand the excitement of archaeological work. This is recognised in the NPPF and by the City of York Council in its emerging policy framework.

In this instance, the scope for public participation is very limited due to the limited space available on this site and the current UK government restrictions to control the Covid-19 outbreak. There may be scope for a presentation of the results of the project or for public participation to be considered for later stages of the redevelopment where it may be more appropriate and practicable.

20A HEALTH AND SAFETY CONSIDERATIONS

Health and safety issues will take priority over archaeological matters and all archaeologists will comply with relevant Health and Safety Legislation.

YAT have developed a Covid-19 protocol which will sit alongside the safe working practices implemented by the main contractor, Vinci Construction

YAT staff will work in accordance with the YAT health and safety policy and appendix (2019). Reference to YAT health and safety statements and People & Plant Interface Zones:

<https://www.balfourbeatty.com/media/317040/hsf-rm-0047a-people-vehicle-plant-interface-zones.pdf>

A Risk Assessment (RA) will be prepared prior to the commencement of works and provided to the IS for inclusion in their overall risk assessment. Staff undertaking the work will be asked to read and sign the RA documentation. They will be given a health and safety induction by senior staff.

YAT staff are covered by YAT's insurance

All YAT staff working on site will have a valid CSCS qualification and registration card.

The following 10 points summarise our health and safety ethos. They are adapted from CITB guidance on what workers should expect from the construction industry and what the construction industry expects from workers.

Our staff will:

1. ensure that upon arrival their presence is made known to site management
 2. expect to have a proper induction providing information specific to the site and be informed about welfare facilities
 3. expect to be given up-to-date information
 4. expect to be encouraged and allowed to communicate any health and safety concerns or queries they may have
 5. expect to be kept informed of any changes that may affect their health and safety such as new or changing hazards, during the project.
-
1. be expected to obey regulations
 2. be expected to prepare properly and carry out appropriate risk assessments
 3. be expected to do tasks responsibly
 4. be expected to know when to stop if something is wrong and take appropriate action

5. be expected to keep learning

CITB GD11 Excavations checklist will also be used for due diligence in planning excavations and to ensure the safety of staff.

<https://www.citb.co.uk/documents/publications/companion-pages/checklists-forms/2020/gd/csk-ge700-gd11.pdf>

The SI is responsible for ensuring that trenches are a safe distance from pylons, overhead power cables and railway lines. Goal posts should be used to reduce risk of contact between machines near or travelling underneath overhead cables. Plant may be fitted with restrictors if necessary.

Existing service plans will be consulted (it is assumed this has been carried out by CYC for the Former Scenario Two site otherwise it would be undertaken by YAT and invoiced at cost to CYC).

Before excavation begins, a qualified and experienced member of the SI team, or their subcontractor, will use a Cable Avoidance Tool (CAT and Genny) to test for the potential presence of previously unknown services. The trench locations may be moved if it necessary to avoid services but this would only be done after liaison with, and prior agreement of the SI and the city archaeologist, Claire MacRae.

The excavation area will be secured using crowd barrier fencing throughout the excavation. The fencing will be checked every day at intervals to ensure it is safe and fit for purpose.

Any problems with health and safety will be reported up the command chain to the project managers who will take appropriate action.

Staff will be properly briefed and trained. No fewer than two staff will be present in the working area.

All movement of plant will be carried out under the direction and supervision of the IS.

All excavation undertaken for archaeological purposes will be directed by YAT.

The above safe working protocols will be followed and reviewed throughout the project. A risk assessment, carried out before the works begin, will be amended regularly during the project to ensure safe working practices and to contribute to lessons learned (on which details will be provided to the YAT health and safety committee).

COVID-19

At the time of writing, the UK is subject to the HM Government's restrictions on movement and social interaction. These are designed to limit and control the spread of novel coronavirus COVID-19.

If the evaluation programme is to proceed during the period of these controls, YAT staff will operate within the IS's specific safe working practices.

Additionally, the IS must ensure that the YAT COVID-19 working protocol and COVID-19 specific dynamic risk assessment are included in the RAMS documentation.

YAT staff will be instructed to flag and report any unsafe working condition in accordance with the IS's safe working practises. In addition to the IS Site Manager, YAT staff will report safe

working concerns to the YAT Project Manager and site work must be placed on hold until these are satisfactorily addressed.

21Ā ENVIRONMENTAL PROTECTION CONSIDERATIONS

- All rubbish on site will be collected and appropriately disposed of
- All spoil will be stored in designated areas and used on the completion of trenches to backfill interventions
- The commissioning client is responsible for advising YAT of the known or potential presence of Japanese Knotweed and for the mitigation of this or other invasive plant species.
- Any signs of contamination noticed by YAT will be reported to the IS

22Ā MONITORING ARRANGEMENTS

As a minimum requirement, the City Archaeologist, Claire MacRae will be given at least one week's notice before work begins and will also be notified when it finishes. The City Archaeologist will be notified as soon as possible of any unusual or significant discoveries and given reasonable access at all times to inspect the site and the archaeological recording, and discuss the project and any further mitigation requirements. Changes to this WSI will only be made with the written approval of City Archaeologist, Claire MacRae.

23Ā COPYRIGHT

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24^Ā FIGURES

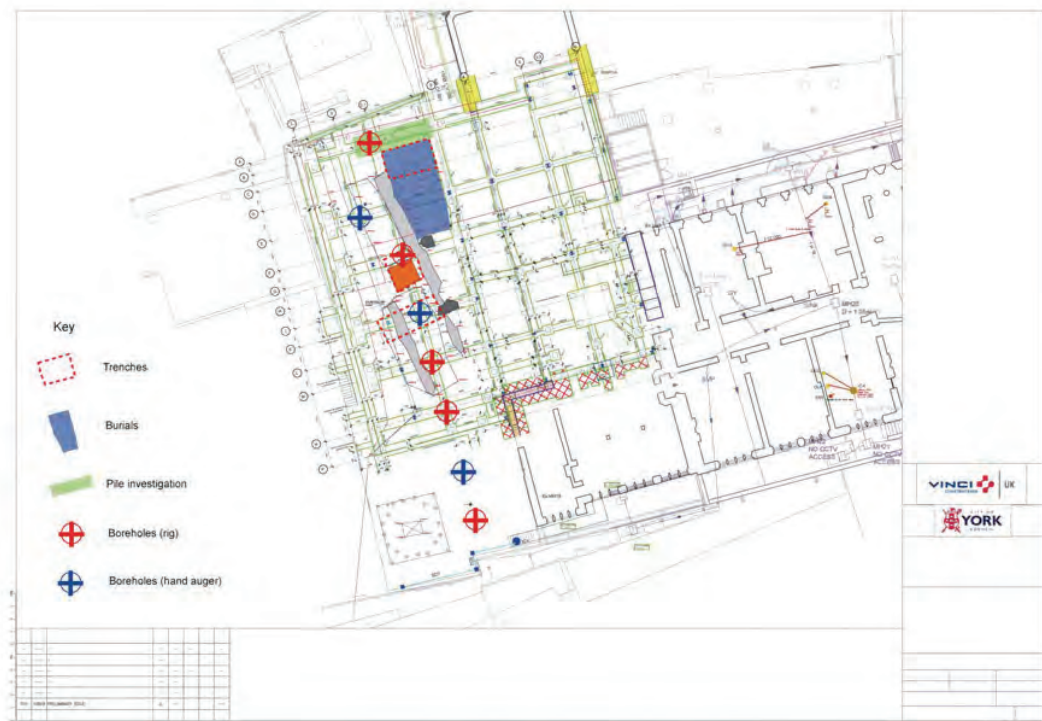


Figure 1: Location of investigations

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25.1.3 Historic Maps

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York Guildhall 2020 WB and Excavation

York Archaeological Trust Written Scheme of Investigation

Report No 2020/72

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