



YORK ARCHAEOLOGICAL TRUST



**FORMER MONK BAR GARAGE,
LORD MAYORS WALK, YORK**

EVALUATION REPORT

by I.D. Milsted

REPORT NUMBER 2013/48



YORK ARCHAEOLOGICAL TRUST

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Abbreviations

YAT York Archaeological Trust

AOD Above Ordnance Datum

YAT Project No.	5735		
Dates work took place	7 th October – 10 th October 2013		
Client	Kilmartin Plowman & Partners Ltd		
Planning Application No.	N/A		
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1. SUMMARY

Three 2m X 2m evaluation trenches at the former Monk Bar Garage, Lord Mayor's Walk, revealed part of the medieval embankment for the city walls and suggested that the associated ditch was progressively in-filled with refuse and garden soils until the nineteenth century, when houses were built. Structural remains of one house were found that had been demolished in the 20th century to make way for the garage building and forecourts.

2. INTRODUCTION

An evaluation was undertaken at the former Monk Bar Garage site (Figures 1 & 2) to inform a planning application for a housing development. Three trenches were machine-excavated between 7th and 10th October 2013; Trenches 1 and 2 were located in the forecourts outside the garage and Trench 3 within the former garage building.

3. METHODOLOGY

Three 2m X 2m trenches were excavated by 1.5 ton mini-digger under archaeological supervision (Figure 2). In Trenches 1 and 3 homogenous, undifferentiated deposits of largely post-medieval date were excavated by machine to the agreed depth limit of 1.25m below ground level (BGL). In Trench 2, substantial 19th century structural remains were encountered at 0.55m BGL and were left *in situ*. In one corner of Trench 2 a deposit of rubble was removed by machine to the depth limit of 1.25m BGL. Three General Biological Analysis (GBA) samples were taken from suitable deposits in Trench 3 to assess the environmental potential of the site. These were processed and inform the archaeological assessment.

4. LOCATION, GEOLOGY AND TOPOGRAPHY

The site is located at NGR SE 6052 5230, 65m north-west of Monk Bar, on Lord Mayor's Walk, York (Figures 1 & 2). The underlying geology comprises glacial silts, sands and clays overlying sandstones of the Sherwood Sandstone Group (British Geological Survey). The site lies between the rampart of the city wall to the south-west and the carriageway of Lord Mayor's Walk, part of the Inner Ring Road of York, to the north-east. To the south-east is a range of mainly 19th century buildings comprising mixed retail and dwelling usage, and to the north-west is the extant open ditch that runs north-west – south-east in-front of the city walls.

The site comprises a brick-built former garage with forecourts to the north-west and north-east accessed from Lord Mayor's Walk.

5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The site is located immediately north-east of the medieval city walls, below which lie the remains of the Roman legionary defences. These consist of earth and timber structures of the late 1st/early 2nd century AD, which were replaced in stone from the early-mid 2nd century onwards (Ottaway, 2004, 67). Excavations in the 1920s by SN Miller cut through the medieval ramparts, exposing the Roman structures below. Some 220m north-west of the site, one of these earlier excavations located Roman walls up to 1.2m wide and 3.6m high, deep within the later rampart (RCHMY 1, 1962, 33). Immediately adjacent to the site is a double-depression in the medieval rampart associated with the likely position of the *porta decumana*: the gateway in the Roman wall through which the *via decumana* passed (RCHMY 2, 1972, 125), the alignment of which is today preserved by Groves Lane (Wilson and Mee, 2005, 53).

The remains of the Roman walls are thought to have been covered by ramparts topped with palisades by the Anglo-Scandinavian period (Wilson and Mee, 2005, 1). It would appear from excavations and documentary sources that the stone walls are a product of the 13th century onwards, progressively replacing a substantial earth and timber defensive circuit of Norman date (Dean, 2008, 47). The medieval stone walls were very heavily refurbished and modified during the late 19th century, and in the possible position of the *porta decumana*, substantial amounts of the earlier Roman work were also removed along with the later medieval fabric (RCHMY 2, 1972, 125). A 2010 evaluation of the medieval wall foundations included a trench immediately behind the garage site, in which it was clear that the 19th century work had included the re-instatement of the medieval rampart with fresh soil imported from a variety of sources (Evans *et al*, 2010, 18-20 and *pers. comm.*).

The ditch in front of the medieval wall is still open north-west of the site, and besides functioning as a moat seems also to have been used as pasture from the 14th century (Raine, 1955, 6-7). The first series OS mapping from the 1850s (Figure 2) shows the area of the garage occupied by housing and yards, demonstrating that the ditch below the current site had been in-filled by this time. A pair of pan-tile roofed early 19th century houses, numbers 17 and 19 Lord Mayor's Walk, were recorded by the Royal Commission in the position of the current garage front forecourt (RCHMY IV, 1975, 83 and map 5); these buildings do not survive, and the further two to the north-west had presumably been

demolished prior to the 1970s. Image y647_9434_70 held in the City of York Council's 'Imagine York' archive (<https://cyc.sdp.sirsidynix.net.uk/client/yorkimages>) suggests that no. 19 may have been the site of the Unicorn Inn public house, which was demolished after 1956; this would accord with comments made by local passers-by during the evaluation. The space now forms the north-eastern courtyard of the garage and the location of Trench 2. To the south-east of the site, the rest of the 19th century buildings from number 15 to 1 survive.

6. RESULTS

6.1 TRENCH 1

Trench 1 was located in the north-western forecourt, immediately below the cut-back and revetted embankment of the city walls and beside the surviving open stretch of the ditch that runs along the length of the walls (Figure 2).

The earliest deposits observed in trench 1, 107, 108 and 109 comprised successive bands of steeply pitched grey brown, orange brown and brown sandy clay that were interpreted as part of the city wall embankment. They formed a slope that was 0.90m wide at the base and sloped downwards from south west to north east, falling from 14.70m AOD to 13.90m at the base of the excavation (Figures 3 & 4, Plates 1 & 2). These deposits contained occasional mortar, CBM and shell fragments and a single residual sherd of Roman pottery that was recovered from deposit 108. These deposits were not sampled as they did not appear to be particularly organic and there was a degree of likely contamination from overlying deposits.

Sealing the uppermost bank deposit 107 was a group of successive deposits interpreted as deliberate in-fillings of the city wall ditch. The earliest of these, 106, comprised various tips of mid grey-brown firm silty sand and clayey silt that contained significant quantities of CBM, mortar and 19th century pottery, along with a 17th or later century tile fragment, occasional pebbles and fragments of shell and limestone. Above this was 105, a 0.10m thick layer of friable black crushed coal fragments interpreted as a levelling deposit. This was sealed by a dump of brick rubble, 104, and a 0.40m thick layer of friable, light grey brown silty sand, 103, that contained frequent pebbles and small CBM fragments, both interpreted as ground-make up. Deposit 103 contained a 19th/20th century mother-of-pearl button. Deposits 106, 105, 104 and 103 produced late 18th and 19th century pottery and appeared to consist of re-deposited, dumped refuse.

Cut into 103 at 13.96m AOD on the north-western side was a crude, narrow brick wall, 112, that was constructed of 19th century bricks and appeared to bear flagstone capping stones (Figure 3, Plate 3). This structure was aligned south-west – north-east and was interpreted

as a 19th century culvert. The construction backfill, 111, comprised a firm, mid grey-brown clay silt with CBM and small stones, and was sealed by 110, a levelling deposit of soft, dark grey silt with CBM and mortar inclusions. Deposit 110 was equated to 102, a 0.20m thick layer of sand and crushed brick rubble that covered most of the trench and formed the make-up for 101, the current tarmac surface of the forecourt at 15.12m AOD.

6.2 TRENCH 2

Trench 2 was located to the north-east of the garage, in a shrub border between the building and Lord Mayor's Walk (Figure 2).

The earliest features identified in Trench 2 were the structural remains of a 19th century building, which lay at c.15.20m AOD, only 0.55m below ground level (Figures 5 and 6, Plates 4-6). The walls and surfaces occupied 75% of the trench and were not removed. The remains consisted of two brick-built main walls, 202 and 203, and a buttress, 205, all of which were keyed into one another and were considered to represent a single phase of construction. 202 was aligned north-west – south east and 203 was aligned north-east – south west, with buttress 205 located at its north-eastern end. These walls defined a probable cellar in the eastern corner of the trench that measured 1.2m by 1.3m and extended beyond the north-eastern and south-eastern limits of excavation.

Wall 202 was the most substantial of this group. It was double-skinned and 10 courses deep, measuring 0.75m high and 0.32m wide, with the lowest 3 courses stepped out by 0.06m. The bricks measured 0.23m X 0.11m X 0.08m and were laid in a crude approximation of English cross-bond with a compact mid-grey mortar (Plate 6).

Wall 203 was of the same height as wall 202 and it abutted wall 202 with all save the uppermost course, which was cut through the upper course of 202 (Figure 5, Plate 6). This gave the impression that the walls had been constructed contemporaneously. The upper course of wall 203 consisted of a single skin of stretcher-laid 0.23m X 0.11m X 0.08m bricks. The next two courses were similar but abutted wall 202. Below these three, the next 5 courses were a double-skin width and laid in the same style as wall 202. The last two courses were stepped out by 0.06m. At the north-eastern end of wall 202 was a buttress, 205. This measured 0.64m X 0.49m X 0.67m high and was keyed into wall 202, projecting into the cellar space.

To the north-west of wall 202 there were two cavities defined by an internal wall, 206. Wall 206 consisted of a single row of randomly laid bricks, aligned perpendicularly to wall 203. The northern cavity measured 0.68m by 0.48m, and the southern was 0.70m X 0.80m; both

extended beyond the north-western limit of excavation and were in-filled with a loose, light grey mortar and brick rubble (deposits 207 and 208) which relates to the demolition of the building. Neither cavity was excavated. They may represent additional small cellar spaces or, given their small size, coal-holes or ash-boxes related to fireplaces in the building.

In the western corner of the trench, defined by walls 202 and 203, was a flag stone surface measuring 0.66m by 0.50m and located at 15.28m AOD. This was heavily coal-blackened and probably represents a fuel-store at the rear of the building. To the south-east, on the other side of the upper course of wall 203, was a brick floor, context 201. This measured 2.14m X 0.50m and projected beyond the south-eastern limit of excavation. This floor lay at 15.22m AOD and may represent the interior of a yard building behind the main building.

The whole building had been levelled and its sub-floor cavities in-filled with demolition rubble. The deposits in-filling the main cellar were removed to the depth limit of 1.25m BGL to expose the wall elevations. No obvious floor was identified despite the stepped-out lower courses of the walls probably representing the foundations. The floor may have been earthen, or possibly robbed. The lowest in-filling deposit, 209, was a friable, dark grey sandy silt with moderate small CBM and mortar fragments and continued below the trench depth limit (Figures 5 & 6), suggesting that the floor may have been removed. At c.15.50m AOD context 209 was overlain by 213, a loose, light creamy-grey mortar and brick rubble that contained 19th century pottery. 213 was very similar to deposits 207 and 208 in the western cavities and, like them, in-filled the cellar to the demolition level represented by the surviving wall tops. An identical deposit, 212, overlay floor 201.

Sealing all the structures and in-fills was 210, a layer of loose, mid grey brown sandy silt with occasional clay patches that was up to 0.45m thick and constituted the soil and surface of the planting bed at 16.87m AOD.

6.3 TRENCH 3

Trench 3 was located in the garage building (Figure 2). During the excavation the trench was observed to consist almost entirely of homogenous soil deposits that were removed by machine. Due to the undifferentiated nature of these deposits, and in consideration of the risks to staff health posed by operating machinery in a confined and poorly ventilated space, a baulk of unexcavated deposits measuring 2m X 0.75m was left *in situ* in the south-western half of the trench, following consultation with the City of York archaeologist, John Oxley.

The earliest observed deposit in Trench 3 was 307, a clean, slightly blue-grey clay that formed a slope from south-west to north-east (Figures 7 & 8, Plates 7 & 8). This slope fell

from 13.74m AOD to 13.62m at the limit of excavation and was 0.20m wide at the base. 307 was interpreted as part of the city wall embankment. The environmental sample suggested that the material of the embankment comprised re-deposited waste materials collected from an urban environment.

Overlying 307 was 306, a 0.20-0.30m thick layer of friable dark grey sandy silt with frequent limestone gravel that followed the underlying slope and was interpreted as a possible weathering deposit derived from the embankment.

Above 306 were two substantial and very similar deposits that were interpreted as representing the in-filling of the city wall ditch. The first of these, 305, was a very firm, very dark brown-grey clayey silt with moderate fragments of limestone, CBM and animal bone and occasional fragments of oyster shell and charcoal. Several sherds of Roman pottery were found, which must be residual as this deposit fills a medieval feature; additionally a dump of angular limestone fragments up to 0.20m across was observed near the base of the deposit at the north-western end. The animal bone and charcoal recovered from the environmental sample suggested that 305 mainly derived from domestic waste, but the relatively unabraded quality of the bone demonstrated little evidence of re-deposition. This suggested that 305 comprised the primary dumping of domestic waste over a period of time rather than a single-episode of intentional in-filling with re-deposited refuse. This process was not protracted, however, perhaps suggesting that the ditch had been left open for a substantial period before being allowed to be filled-in.

Sealing 305 was 304, a 0.60m thick layer of firm, dark grey brown slightly sandy clayey silt with moderate fragments of limestone, animal bone, and residual, abraded and fragmentary Roman CBM. The presence of vole and possible rodent caches of leopards' bane seeds suggested that this material had accumulated in an open, grassy and 'clean' environment rather than on waste ground or in midden. The charcoal and animal bone supported the initial interpretation of 304 as a garden soil with some organic material introduced to improve the soil condition, rather than being the product of dumping refuse.

Sealing 304 at 14.52m AOD was 303, a compact layer of mid brown-grey clayey silt that in-filled a 0.20m deep depression in the underlying deposits at the north-eastern side of the trench and included a very degraded timber. 303 was interpreted as a make-up deposit for the floor of the garage, representing the re-working of material disturbed during site clearance works for construction. Above this was 302, a 50mm thick layer of loose, black clinker that formed a bedding deposit for the overlying 0.20m thick concrete and brick rubble of the garage floor, 101, at 14.87m AOD. The concrete of 101 included a 0.35m deep, 0.30m

wide brick rubble footing aligned to the garage building that may represent a former internal wall.

6.4 DISCUSSION

Trenches 1 and 3 identified part of the city wall embankment that defined the ditch, part of which remains open to the north-west of the site. The differing patterns of in-filling reflect the pattern of post-medieval land-use in this area.

To the south-east, in Trench 3, it seems that sporadic in-filling with domestic refuse may have occurred, prior to the development of the area in the 19th century. This gradual in-filling may date from the later medieval period, when records survive of the ditch being leased for grazing. Once housing arrived in the early 19th century, it seems that the Trench 3 area became gardens associated with the buildings, suggested by the organic material in the soil and the presence of voles, which prefer a clean environment and are not associated with refuse or midden. This soil may have been augmented during the late 19th century renovation of the city walls, when the extant embankment was re-landscaped.

To the north-west, in the Trench 1 area, the lack of 'clean' garden soils or the earlier refuse disposal may indicate that this stretch of ditch was kept relatively clear after the construction of the housing, and that perhaps the in-filling of the ditch evidenced by the substantial quantities of 19th century refuse relates to slightly later landscaping. This is not certain, however, and it may just be that Trench 2 represents an area reclaimed during the housing development but not converted to gardens. The culvert may relate to the 19th century buildings.

In Trench 2 the structural remains are clearly 19th century and probably relate to the rear and back yard of number 17 or 19 Lord Mayor's Walk. It is difficult to precisely scale the 19th century map but it is possible that wall 203 is the party wall between 17 and 19, as is suggested in Figure 2. The cellar could relate to the Unicorn Inn demolished after 1956, and in which case may have stored beer casks. The level of preservation is good and suggests that further remains survive in the immediate area. The demolition in-filling deposits and levelling almost certainly relate to the 20th century construction of the garage buildings, as do the sub-floor deposits seen in Trench 3.

7. LIST OF SOURCES

<https://cyc.sdp.sirsidynix.net.uk/client/yorkimages>

<http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>

8. ACKNOWLEDGEMENTS

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The site team were Ian Milsted, Arran Johnson and Ben Savine.

9. BIBLIOGRAPHY

Dean, G., 2008, *Medieval York*, The History Press, Stroud

Evans, D., Johnson, M., and McComish, J., 2010, *City Walls, Lord Mayor's Walk, Chainage 2100-2240, York*, YAT Evaluation report 2010/33

Ottaway, P., 2004, *Roman York*, Tempus, Stroud

Raine, A., 1955, *Medieval York*, John Murray, London

RCHMY1, 1962. An Inventory of the Historical Monuments in the City of York, Volume 1
Eburacum, RCHME

RCHMY2, 1972. An Inventory of the Historical Monuments in the City of York, Volume 2
Eburacum, RCHME

RCHMY4, 1975. An Inventory of the Historical Monuments in the City of York, Volume 4
Eburacum, RCHME

APPENDIX 1: FIGURES AND PLATES



Figure 1 Site location

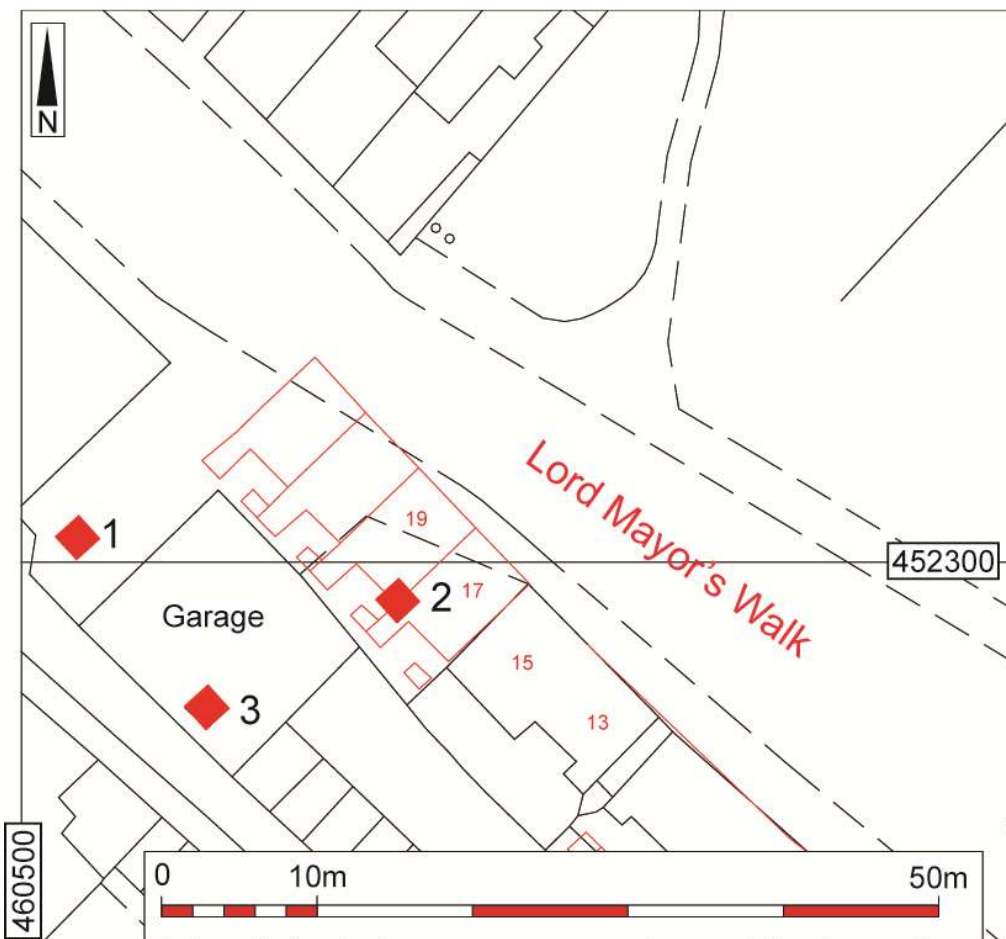


Figure 2 Trench locations and 1852 Ordnance Survey detail in red

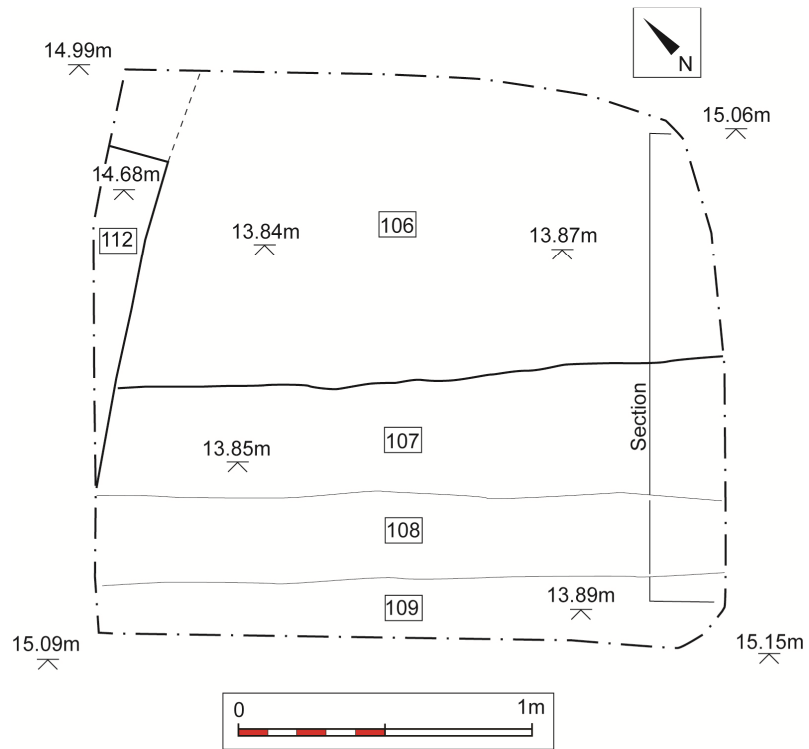


Figure 3 Trench 1 plan

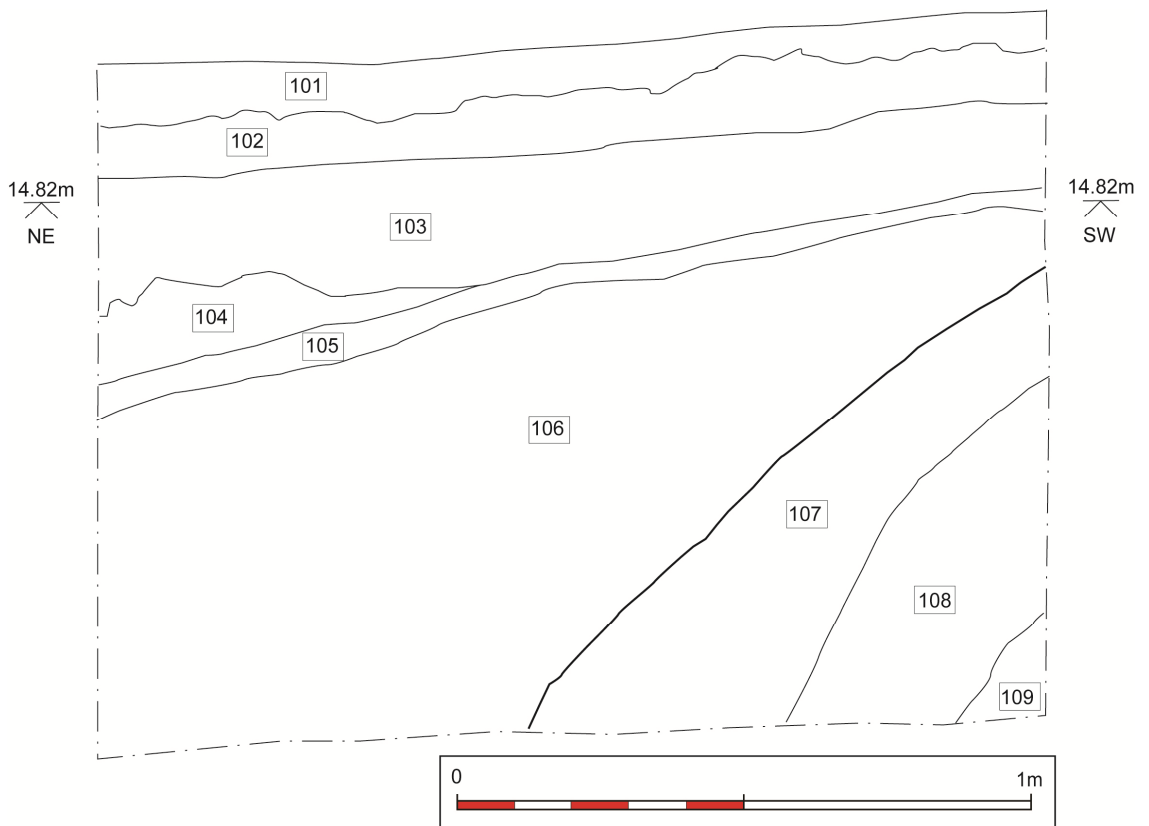


Figure 4 Trench 1 north-west facing section

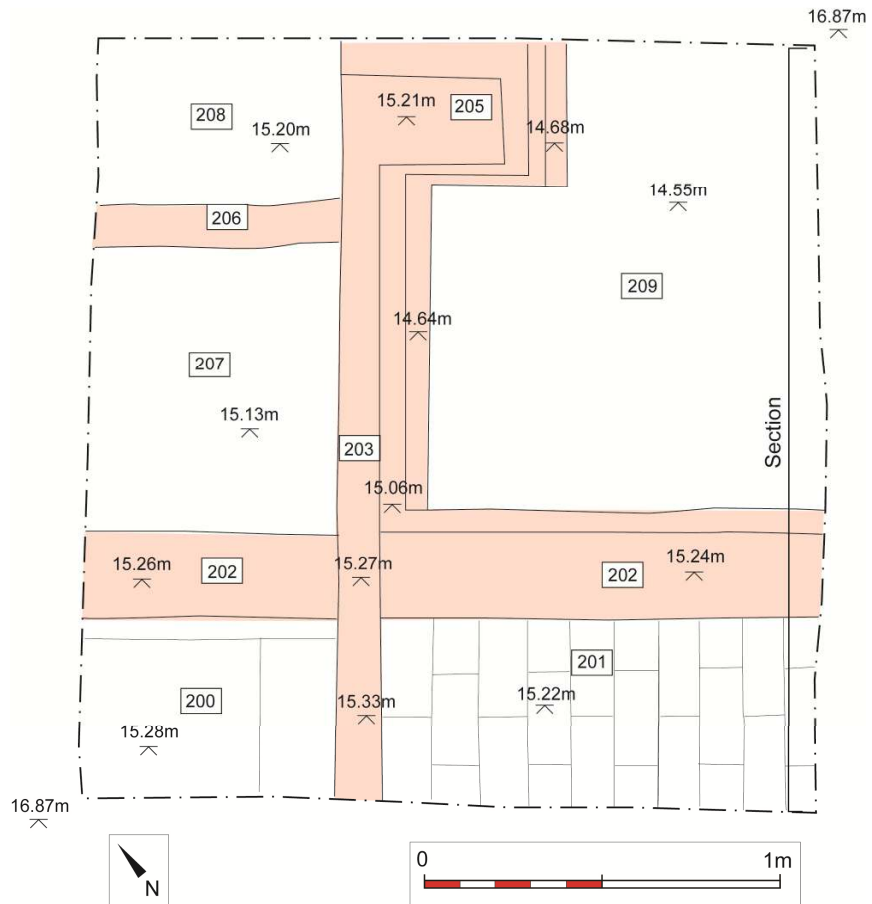


Figure 5 Trench 2 plan with walls coloured

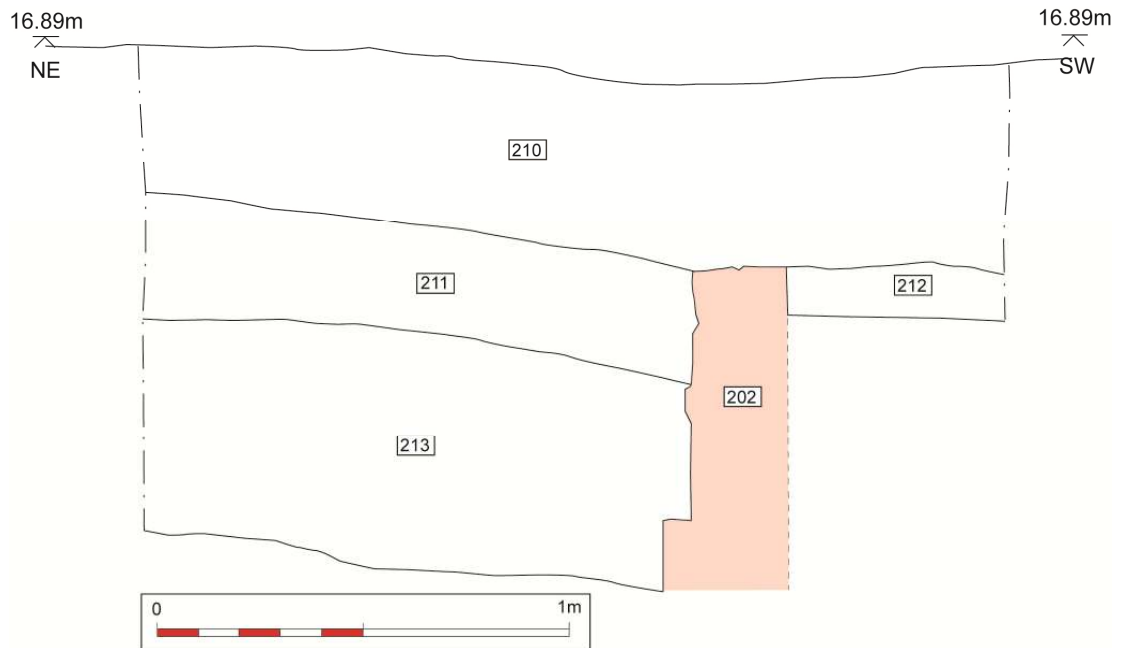


Figure 6 Trench 2 north-west facing section with wall coloured

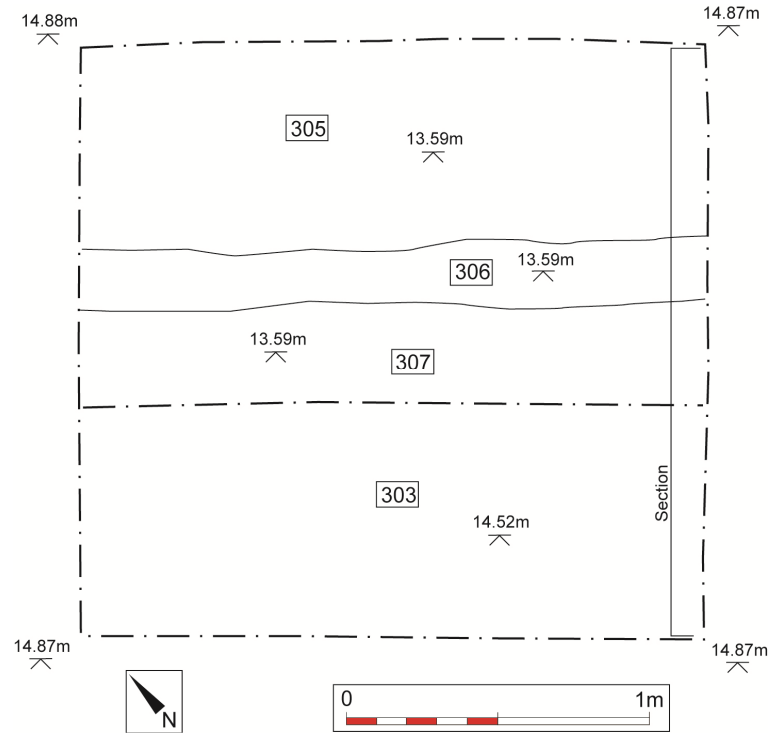


Figure 7 Trench 3 plan

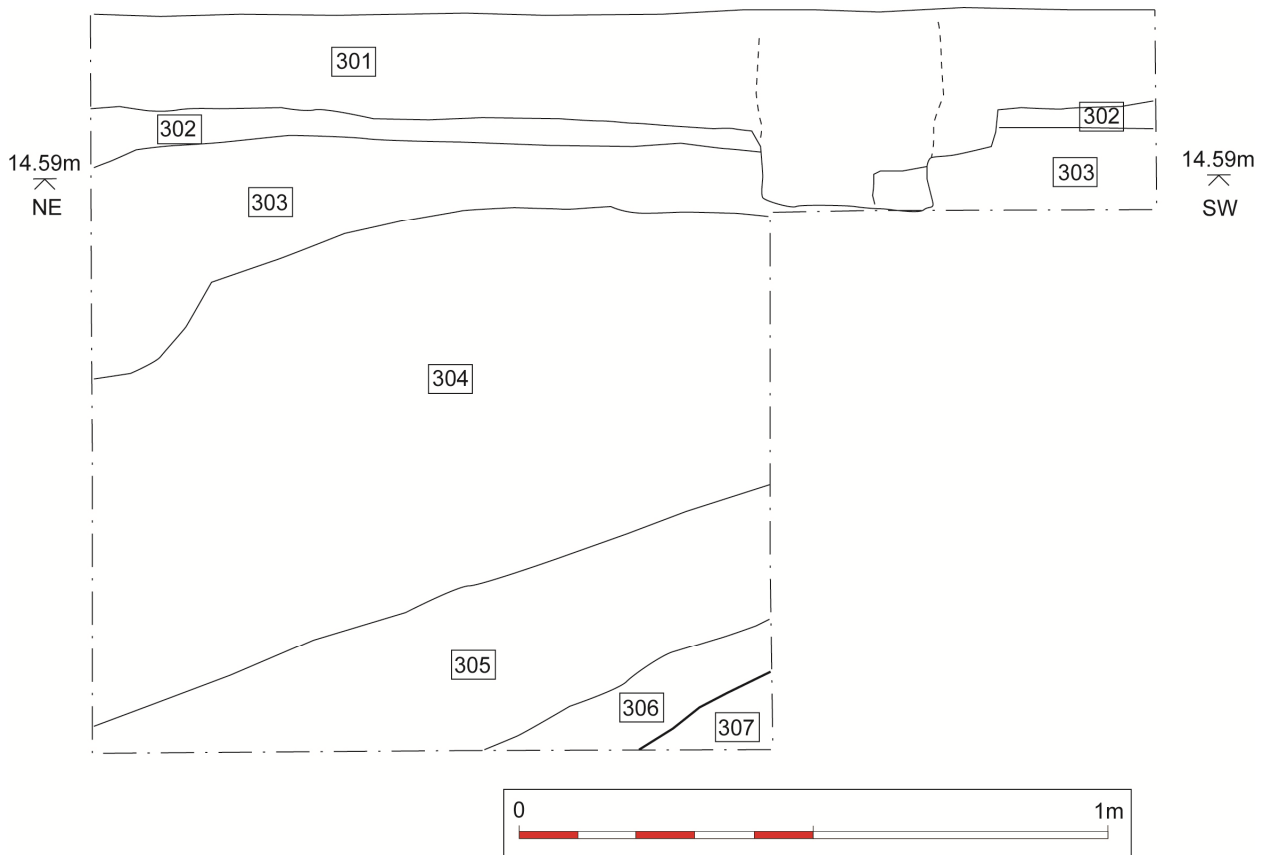


Figure 8 Trench 3 north-west facing section



Plate 1 Trench 1 looking north-east



Plate 2 Trench 1 north-west facing section



Plate 3 Trench 1 south-east facing section with culvert 112



Plate 4 Trench 2 looking north-west



Plate 5 Trench 2 north-west facing section



Plate 6 Trench 2 looking south-west, showing relationship of walls 202 and 203



Plate 7 Trench 3 looking south-east



Plate 8 Trench 3 north-west facing section

APPENDIX 2: CONTEXT REGISTER

Context	Description
100	Unstratified
101	Surface
102	Make-up
103	Make-up/Levelling
104	Dump
105	Levelling
106	Ditch backfill
107	Bank
108	Bank
109	Bank
110	Levelling
111	Construction backfill
112	Brick and stone culvert
113	Construction cut
200	Surface
201	Floor
202	Wall
203	Wall
204	VOID
205	Buttress
206	Internal wall
207	Cavity backfill
208	Cavity backfill
209	Cellar backfill
210	Make-up
211	Levelling
212	Levelling
213	Cellar backfill
300	Unstratified
301	Floor
302	Bedding
303	Make-up
304	Ditch in-fill
305	Ditch in-fill
306	?Weathering
307	Bank

Table 1 Context register

APPENDIX 3: POTTERY BY A. JENNER

A total of forty sherds were viewed from excavations at the 'Former Monk Bar Garage, Lord Mayor's Walk, York' (Project 5735. YORYM 2013:1311) from six Contexts. The material ranged in date from the Roman period to the 19th century but Anglo-Scandinavian, medieval and early post medieval pottery is not represented.

The small size of the sample may in part explain these gaps in the assemblage, though other factors relating to the level of occupation and use of this site, positioned as it is just outside the northern stretch of City walls.

Sherd sizes range from small (<5cms) to medium (5-10cms) to large (>10cms) at the widest girth in all periods represented.

No further work is recommended.

Context	Find	Quantity	Dating	Details
103	BF8	11	19TH CENTURY	1 English stone ware large, 1 post medieval fine oxidised ware jar neck and rim with small thumb indentations at the neck large, 1 cream ware bowl medium, 1 post medieval coarse oxidised pancheon rim with flaking brown glaze and slip band at rim medium, 3 transfer printed dish with scalloped rim and willow pattern in blue medium, 1 transfer printed oval open form with willow pattern decoration and pedestal base with printed '3' under small, 1 transfer printed dish base small to medium, 1 slip bowl rim large, 1 slip bowl with sparse light brown decoration large.
106	BF9	20	LATE 18TH/19TH CENTURY	3 Heworth type oxidised post medieval earthenware pancheon large and small, 3 post medieval oxidised earthenware with chestnut amber glaze on both surfaces small, 1 English stoneware base small, 2 plain banded slipware small, 1 banded slipware yellow with white bands small, 1 transfer printed willow pattern dish or plate rim small, 2 cream ware including rim of a bowl small to medium, 1 slip ware bowl with light brown dribbled patches of decoration small to medium, 1 refined red earthenware with brown glaze externally and white slip on the internal surface medium, 2 post medieval oxidised earthenware jar with lug handles large and small, 1 refined red earthenware type bowl

				with everted rim and dark brown glaze small to medium, 1 post medieval oxidised earthenware rim with green brown glaze and slipped band at rim small, 1 pearl ware small
108	BF10	1	ROMAN	1 Roman grey ware small residual
213	BF11	4	19TH CENTURY	2 transfer printed bowl with willow pattern small, 1 English brown stoneware bottle base small, 1 Cistercian cup small
304	BF25	2	ROMAN LATE 3RD TO EARLY 5TH CENTURY	1 Samian small late 2nd century, 1 Crambeck ware small late 3rd to 5th century
305	BF26	2	ROMAN 2ND/3RD CENTURY	1 Dales ware jar small, 1 grey ware jar large

Table 2 Pottery by context

APPENDIX 4: CERAMIC BUILDING MATERIAL BY J.M. MCCOMISH

Just seven sherds of ceramic building material (CBM) were recovered from the site which were recorded to a standard YAT methodology. The sherds collectively weighed 1.525kg, and all were recovered from context 304 with the exception of a sherd of tin glazed tile from context 106. The material comprised five sherds of Roman CBM which were too badly fragmented to determine the original form, and a single sherd of Roman roofing tile (imbrex). Five of the sherds were in fabric R9 and one in fabric R10 and these are the two commonest fabrics seen in Roman York. The imbrex was in a thickness typical for York as a whole. The sherd of tin glazed tile dates from the 17th century or later.

The collection is mainly of use for dating the context concerned. The only sherd meriting further research is the tin glazed tile as it may be possible to determine the place of manufacture from the design. The remaining material does not merit any further research and is too badly fragmented to merit retention.

APPENDIX 5: SMALL FINDS BY N. ROGERS

As table 3 indicates, this material is undiagnostic, being too fragmentary to enable functional identification. The exception to this is the button from context 103 which is of 19th – 20th century date

Context	Sample No.	Material	Comment
103	-	Mother of Pearl	Button
304	01	Slag/Metalworking Debris/Metal fragments	Undiagnostic
304	01	Glass	Fragment, undiagnostic
305	02	Slag/Metalworking Debris/Metal fragments	Undiagnostic
307	03	Slag/Metalworking Debris/Metal fragments	Undiagnostic
307	03	Glass	Fragment, undiagnostic

Table 3 Small finds by context

APPENDIX 6: ENVIRONMENTAL SAMPLES BY J. MILLER AND S. CARSON

SUMMARY

Three samples were submitted for specialist analysis to determine the potential of the deposits for environmental remains. Analysis revealed inclusions of materials from domestic sources including hearth waste, cereal processing and also industrial processes such as metalworking.

INTRODUCTION

All samples came from trench 3 which exposed the clayey rampart associated with the city walls, generally regarded as 11th-13th century in date. Primarily, the samples were taken to assess the environmental survival and potential of the site with specific questions assigned to each. It was anticipated that analysis might help determine whether or not context 304 represented improved cultivated soils or dumped material from several sources. Furthermore, closer observations on materials within context 305 might ascertain if that deposit developed *in situ* or was dumped, and could clarify whether any indication of the contemporary environment existed within context 307.

METHODOLOGY

BULK SAMPLE PROCESSING

Bulk samples were received within 10 litre plastic tubs, sealed to exclude light and air. They were floted for the recovery of environmental evidence and artefacts using standard methods and a *Siraf* flotation system including a bespoke pumped recycled water system with four settling tanks. Samples were disaggregated by agitating in water over a 500µm diameter mesh supported over a flotation drum. Light, primarily organic materials that floated as wash-over (flots) were retained on 500µm and 1mm calibrated mesh diameter *Endicot* sieves whilst other materials larger than 500µm that did not float remained on the mesh as the retent.

Wet retents were spread out on plastic trays and examined visually, then tagged and dried. The flot material was wrapped in blue acid-free paper, tagged and recorded before being air dried on trays in a warm drying room. Once dried, the retents were sieved using 4mm and 2mm *Endicot* sieves and sorted using magnified illuminated lamps for all categories of artefacts and ecofacts. A magnet was employed to locate magnetized stone and metals.

Sorting of flots was undertaken using a *Nikon 93756* binocular microscope at variable magnifications of between x8 and x40 with associated *Schott KL-1500 LCD* cold light source. Sorted materials were bagged and labelled for submission to specialists and weighed (where relevant) using an *Ohaus CS200* digital scale calibrated to 0.01g. Sorted residues were also weighed on a digital scale, bagged and stored pending decision regarding disposal.

BOTANICAL MATERIAL IDENTIFICATION

Botanical material from each sorted flotation retent was added to the corresponding flot before being sorted through calibrated sieves of 500µm, 1mm and 4mm mesh diameter. Charcoal >4mm was 50% or 100% identified in each case depending on volume in order to characterise the assemblage present. Charcoal identification in all cases was undertaken with reference to Schweingruber (1990) using the reflected light of a Zenith metallurgical microscope at X63 magnification. The botanical assemblage was 100% analysed for carbonised cereals, seeds and other macroplant remains. Cereal identification was achieved with reference to Jacomet (1987). Seed identification was undertaken with reference to Beijerinck (1947), Cappers (2006) and the Dickson botanical reference collection. Plant nomenclature follows Stace (1997) except cereals, which conform to Zohary & Hopf (2000).

FAUNAL REMAINS IDENTIFICATION

All faunal material recovered from the samples was examined at microscopic level and identifiable fragments assigned to the lowest taxonomic level possible. Identifications were made with comparison to reference specimens from the Zooarchaeological reference collections at the Dickson Laboratory and the Hunterian Museum. These were further supplemented with reference texts. Mammalian fragments that could not be identified, yet retained characteristics which enabled size estimation of the animal were assigned into the following categories; large mammal (eg. horse, cow, large deer), medium mammal 1 (eg. sheep, goat, pig, small deer), medium mammal 2 (eg. dog, cat, hare), small mammal (eg. rabbit, rodent). Where taxonomic identification was not possible, the following categories were used as general descriptors for bone fragments; unidentified mammal, unidentified fish, unidentified bird. Remaining fragments that could not be assigned to any of these categories, and fragments below 10mm in size without any size determinant characteristics were recorded as unidentified. All recorded identifications were compiled into a database of number of identified specimens (NISPs).

For each sample observations of bone preservation, angularity of breaks and general fragment size were recorded using qualitative scales. A general assessment of colour of fragments was made using a Munsell colour book. This was completed in order to make general observations on the taphonomy of each context.

SHELL IDENTIFICATION

Marine bivalves were generally fragmented, although occasional slightly larger fragments were observed and identification was achieved using McMillan (1968).

RESULTS

CONTEXT (304) SAMPLE <01> DITCH FILL - POSSIBLE VICTORIAN GARDEN SOIL

Context 304 was investigated to see if it represented improved cultivated soils or dumped material from several sources.

Sample 01 contained a significant volume of CBM, some of which had been glazed and some fragments had indications of cement residue. A smaller volume of grey/white mortar with sandy inclusions was also present. Metal working debris consisted of hammer scale, but equal volumes of magnetic material, possibly heated stone, were also recovered. A small fragment of clear glass with a uniformed thickness was present, along with a small flake of clear quartz with an iridescent hue. One very small flake of potentially worked flint, one shard of badly degraded pottery and a small quantity of slag was also recovered.

Botanical remains were limited but a moderate abundance of charcoal was recovered. Fragments were fairly small in size but varied, with species indicating collection from mixed deciduous scrub woodland. Limited evidence for cereal processing was recovered with one carbonised oat/rye (*Avena/Secale*) grain and some indeterminate fragments, along with one carbonised dock (*Rumex* sp) seed which is a typically associated cereal crop weed. The grains were fairly abraded/incomplete and poorly preserved, hence not further identifiable, and may be indicative of accidental loss during grain parching and long exposure to heat and consequential burning. An abundance of uncarbonised possible leopards bane (*Doronicum pardalianches*) seeds were recovered and could be more recent in origin given the scarcity of other botanical remains and the presence of roots. The abundance of them yet no other uncarbonised seeds is suggestive of a possible rodent hoard. Only one small fragment of elder (*Sambucus nigra/racemosa*) was recovered, the presence of which is usually indicative of enriched or manured soils. Occasional fragments of possible oyster (*Ostrea edulis*) shell were also recovered, probably derived from domestic waste.

An abundance of bone fragments were recovered from the sample. The majority of these were small bone chips below 10mm in size, and were not diagnostic of species. Consequently, they were recorded as unidentified. The chips consisted of a mixture of un-burnt, burnt and calcined fragments. The majority of these were un-burnt and fairly well

preserved. They displayed occasional rounded edges, suggesting a small amount of post depositional wear. They ranged in colour slightly, from a very pale brown (Munsell 10YR 7/3) to a pale brown (Munsell 10YR 6/3). This slight range in colour is not significant and does not imply redeposition of the bone fragments.

Approximately one third of the unidentified bone chips were calcined bone. These were particularly dominated by chips 1-3mm in size. The calcined fragments were white in colour; approximate to Munsell colour 7.5YR 9.5/1. Some of the fragments demonstrated advanced surface cracking. This is common in calcined bone and is caused by burning of bone at a very high temperature. Overall the calcined fragments appeared slightly more rounded and worn than the non-calcined bone. This is fairly usual, as calcined bone is more fragile and therefore more susceptible to taphonomic processes.

A small number of the unidentified bone chips were burnt bone. These were black in colour; approximate to Munsell colour 5Y 2.5/1. These fragments were fairly well preserved, and appeared to be relatively robust.

A minority of bone fragments were suitable for further identification. A caudal vertebra, radius and small claw from a small rodent were recovered, although none had features diagnostic of species and so all three were recorded as rodent (Rodentia). Along with these, two small mammal teeth were recovered. These were characteristic of voles, but were insufficient for identification to species. They were therefore recorded as vole (Arvicolinae). The presence of vole remains indicates that the area is more likely to have been a clean, grassy environment than dirty, heavily built up waste ground used as a midden. The presence of the large numbers of seeds of cf leopard's bane, suggestive of a small rodent cache, would support this interpretation.

Additionally a broken claw from a larger mammal was recovered. This was too fragmented to be identified to species, but by size it could be categorised as medium mammal 2 (cat, dog, hare etc).

The sample contained material derived from various sources including building redevelopment and re generation, industrial processes, cereal processing and domestic hearth and food waste. The evidence from the bone taphonomy is suggestive of a gradual accumulation of material over a period of time. Overall the bone fragments were fairly well preserved, and demonstrated a mixture of un-burnt, burnt and calcined bone. The preservation and colour ranged was slight, suggesting that there was very little redeposition of bone. Although the botanical remains were less well preserved, this is just as likely to be

the result of recurrent burning on the hearth as redeposition. Collectively the material is more suggestive of garden soils resulting from intentional incorporation of primarily domestic materials to enrich poorer soils containing demolition or industrial debris.

CONTEXT (305) SAMPLE <02> PRIMARY DITCH FILL – PROBABLY MEDIEVAL

Context 305 was examined to determine whether the deposit developed *in situ* or was dumped

Sample 02 contained a significant volume of grey/white mortar, with sandy inclusions and an equally large volume of red/orange brick type CBM material and some fragments retaining cement residue. Some small fragments of metal working debris were recovered, including hammer scale and some magnetic material, possibly stone. A small volume of poorly preserved (possibly recurrently heated) coal/cinder was also recorded. In addition, some possible metal-working slag with a metallic blue sheen and a single shard of fawn coloured pottery with a similarly coloured fabric were present in this sample. The shard was badly degraded and had the texture of soft sandstone.

The charcoal assemblage was small, but representative of mixed deciduous scrub woodland. Three cereal grains were recovered, identified as oat/rye, possible bread wheat (*Triticum cf aestivum*) and one indeterminate fragment, suggestive of processing waste. As before, cereals were too poorly preserved for more confident identification. An abundance of uncarbonised probable leopards bane seeds were recovered but again are probably fairly recent in origin since little else was found. As with context 304, they may infer a rodent hoard. A moderate amount of oyster shell was recovered, probably reflecting deposition of domestic food waste along with hearth waste. Oyster shell has a significant association with lime production and soil enrichment since medieval times and was an important food source for poorer urban communities.

The faunal material recovered from the sample was dominated by small bone chips below 10mm, the small size of which caused them to be recorded as unidentified. The vast majority were un-burnt bone, ranging in colour from very pale brown (equivalent to Munsell 10YR 8/2) to a light yellowish brown (equivalent to Munsell 2.5YR 6/3). Many of the fragments at the darker end of the scale also had approximately 40% mottling of dark greyish brown (equivalent to Munsell 2.5Y 4/2). All the un-burnt fragments displayed fair preservation, with occasional rounded edges. This indicates that there has been little post-depositional wear.

The remaining unidentified bone chips were calcined bone, i.e. bone that has been burnt at temperatures over 1600°C. These made up only a small minority of the total number of bone chips. These fragments were white in colour (equivalent to Munsell 7.5YR 9.5/1). These displayed similar levels of preservation to the un-burnt bone, with few rounded edges. Similarly, this demonstrates that these fragments have not been subject to any significant post-depositional wear.

A further seven fragments of un-burnt bone, between 10-20mm in size, were also recovered. These fragments were not diagnostic of species. However their size demonstrates that they originated from a medium to large mammal, and were recorded thusly. Additionally, five fragments of burnt bone between 10-30mm were also recovered. These ranged in colour between pinkish grey (approximate to Munsell 7.5YR 6/2), dark grey (Munsell 7.5YR 4/1) and very dark grey (Munsell 7.5YR 3/1). These fragments did not display any characteristics suitable for species identification, however the morphology of them suggested that they were from a medium to large mammal and they were recorded as such. The presence of fragments from medium to large mammals is strongly suggestive of food processing waste.

Three fragments of small mammal were recovered. These were highly fragmented at approximately 2x2mm in size, and therefore could not be assigned to species. Consequently they were recorded as small mammal.

A partial centrum of a fish vertebra was also recovered. This was approximately 1cm in size, and was not suitable for identification to species, so was recorded as fish. Additionally two fragments of amphibian tibiofibula were found. These were again too small for species identification, and were recorded as frog/toad.

Overall the bone from the sample demonstrates similar preservation, suggesting that the fragments have all been deposited in a similar taphonomic setting. The fact that there is no vast difference in preservation would suggest that there have been no drastic redeposition. The slight range in colour of bone, in particular in the un-burnt bone, suggests that the bone might have accumulated gradually over time, although the presence of burnt, un-burnt and calcined bone, as well as a mixture of larger and small mammal, amphibian and fish remains, indicates that this context was likely to have been composed of domestic waste. Given the bone evidence, it is likely that this deposit has accumulated *in situ* gradually, although perhaps over a fairly short timescale rather than a slow, protracted build-up.

CONTEXT (307) SAMPLE <03> RAMPART 11TH-12TH C

Context 307 was examined to ascertain if it contained evidence pertaining to the contemporary environment

Sample 03 contained a significant amount of CBM, some of which still retained evidence of mortar adherent. Some large fragments of chalk were recovered plus a small amount of grey/white mortar with sandy inclusions. The metal assemblage included a small piece of lead in poor condition and two fragments of magnetic material, possibly stone. Other material recovered from this sample included one shard of clear glass, which was of a uniform thickness and had a blue/green hue.

Botanical remains were again very limited with only occasional charcoal fragments identified as representative of mixed deciduous scrub woodland. This is likely to reflect collection from very local sources as hearth fuel. Carbonised cereal grains were also limited but included possible oat/rye, one (probably hulled) grain of 6-row barley (*Hordeum vulgare cf v vulgare*) and indeterminate fragments. The grains were poorly preserved and abraded/fragmentary suggestive of prolonged or recurrent exposure to heat. The only other botanical remains were frequent *cf* leopards bane seeds, which as before are interpreted as probably modern in origin.

The faunal material was dominated by unidentified bone chips below 10mm in size. Of these bone chips, the majority were non-burnt bone, ranging in colour from a very pale brown (equivalent to Munsell 10Y 8/4) to a dark grey (Munsell 7.5Y 2.5/1). The un-burnt chips displayed fair preservation, with a small amount of rounded edges.

The remaining minority of bone chips comprised both burnt and calcined bone. The burnt bone was black in colour (equivalent to Munsell 2.5Y 2.5/1), with the calcined fragments white (equivalent to Munsell 2.5Y 9/1) and mostly below 3mm in size. Both the burnt and calcined bone fragments were fairly well preserved.

An additional ten fragments of un-burnt bone 10-20mm in size, and one fragment 30-50mm in size, were found. However these were not diagnostic of species. By size and gross anatomy they must have originated from a medium to large mammal, and they were recorded accordingly.

Only one bone fragment from the sample could be identified further. This was a caudal vertebra from a small rodent. This element alone was not sufficient to give a conclusive species identification, and consequently it was recorded as Rodentia. As with the previous

two samples examined, the presence of small rodent bones would support the interpretation that the large numbers of seeds of cf leopard's bane could reflect rodent hoards.

Overall the bone from this sample cannot tell us anything conclusively. The preservation of fragments does not vary greatly, suggesting that they were all deposited in similar taphonomic conditions, but the range in colour suggests incorporation over a period of time. The entire collective assemblage is difficult to interpret with confidence, but the CBM, lead and glass found especially suggest that this layer may be the result of urban remodelling of a ground surface originally comprising structural debitage, to which domestic materials including hearth and butchery waste relating to very close domestic bone cleaning were deposited for soil enrichment.

DISCUSSION

SMALL FINDS

The recurrence of CBM and frequent occurrences of mortar, worked stone, metal and slag are all suggestive of demolition debris and regeneration within the general area. Hammerscale was found within samples 01 and 02 suggestive of smithing taking place within the immediate vicinity. Hammerscale is important in the interpretation of a site because it is diagnostic of a specific process and is often found in the immediate vicinity of the smithing hearth and anvil (Starley 1995).

CHARCOAL

The samples did not contain an abundance of charcoal, but alder (*Alnus*), birch (*Betula*), hazel (*Corylus*), apple type (*Maloideae*), poplar/willow (*Populus/Salix*), cherry type (*Prunoideae*) and oak (*Quercus*) were all represented in low numbers. This assemblage reflects continuation of the habit of collecting fuel from mixed deciduous scrub woodland, probably of very local origin. Although no interpretation can be made on such a small assemblage, whether for individual contexts or collectively, it is likely the charcoal reflects domestic hearth waste, industrial kindling or both. Oak is recurrent in samples, and the presence of it with metalworking waste could be residual evidence of smelting fuel, since oak maintains a high burning temperature for extended periods (Tylecote 1962). However it could also be reuse of remodelled structural elements or small branch kindling from local woodlands. Similarly hazel and poplar/willow could reflect wattling or fuel, whilst birch, apple type and cherry type could be small item turnery or, more probably, domestic hearth fuel.

CEREALS AND OTHER SEEDS

Trace evidence of cereal processing was found in all three samples, including primarily poorly preserved carbonised grains of oat/rye and single grains each of probable bread type wheat and 6-row hulled barley. However, other grains were too fragmented to be identified. The range of cereals reflects the range in crops cultivated for use and suggests cultivation on a range of soil types, since oat will grow well on wet, impoverished soils, hulled barley can be spring sown to yield well even in wet summers whilst wheat prefers better soil conditions and is autumn sown but is the preferred cereal. It is likely that the various grains represent accidental loss during the parching stage of cereal processing and the poor state of preservation of many of them is highly suggestive of prolonged or recurrent exposure to direct heat within the hearth.

Hearth debris may have been dumped along with other household rubbish, contributing to the organic enrichment of the composition of the soils and deposits. This is particularly evident in samples where oyster shell and elder seeds are also present. Elder grows well on enriched, fertile waste ground such as that with domestic midden or other organic input. The specific medicinal qualities of elder have been effectively used in the past as a treatment for colds (Stuart 1989). Similarly, oyster shell has had association with soil enrichment in urban environments since medieval times. A by-product of a cheap food source for poorer society, it also has association with industrial production of lime.

Although more than likely fairly recent in origin, leopard's bane is particularly noteworthy. The plant is a naturalised introduced species and is a frequent inclusion of woods, roadsides and other shaded places in Eastern Britain (Stace 1997). The large numbers of seeds within all contexts strongly suggests growth *in situ* and are more likely to reflect the overwintering hoards of small rodents than bioturbation from roots.

BONE

The bone fragments recovered from each sample demonstrate an essentially similar picture. The preservation in each sample does not vary greatly, although there is a slight colour range within all three. This suggests either there has been little redeposition or disturbance of the contexts and suggests that they have been deposited cumulatively, although perhaps over a moderate time only. Very few elements were suitable for species identification; however the elements that were identified are not unusual. The presence of mammal and fish bone across the samples suggests that samples included domestic food waste as well as naturally occurring fauna. This is further supported by the presence of burnt and calcined small fragments in each context.

REFERENCES

Beijerinck, W. 1947 *Zadenatlas der Nederlandsche Flora*. Veenman & Zonen, Wageningen.

Cappers, R.T.J., Bekker, R.M. & Jans, G.E.A. 2006 *Digital Seed Atlas of the Netherlands*. Groningen: Barkhuis Publishing

Jacomet, S. 1987 *Prähistorische Getreidefunde, Eine Anleitung zur Bestimmung Prähistorischer Gersten und Weizen Funde*. Herausgegeben im Eigenverlag, Basel.

McMillan, N.F. 1968 *British Shells*. Warne & Co: London

O'Connor, T.P., York Archaeological Trust, Council for British Archaeology, 2003. *The Analysis of Urban Animal Bone Assemblages*, Council for British Archaeology.

Schweingruber, F. H. 1990 *Anatomy of European Woods*. Haupt, Berne & Stuttgart.

Stace, C. 1997 *New Flora of the British Isles*. Cambridge: Cambridge University Press

Starley, D. 1995 *Hammerscale*. The Historical Metallurgy Society: Archaeology datasheet No 10

Stuart, M. 1989. Reference Section. Pages 141-283 in Stuart, M. (ed.) *The Encyclopaedia of Herbs and Herbalism*. MacDonald & Co. Ltd., Novara.

Tylecote, R.F. 1962 *Metallurgy in Archaeology*. Arnold, London.

Monks Bar Garage 5735	Context	304	305	307
	Sample	01	02	03
Flot Composition (1-5 abundance scale)	Total flot volume	6ml	4ml	4ml
Charcoal		+++	++	++
Cinder		++	+	-
Coal		+	-	-
Bone		+	+	-
Insect/Invertebrate eggs		++	-	-
Seeds		+++	++++	+++
Cereals		+	+	+
Glassy slag sphere		++	-	-
CBM		-	++	-
Roots		+++	+++	+++++
Total Charcoal (F+R)				
Charcoal >4mm		2ml	<2ml	<2ml
Charcoal <4mm		5ml	<2ml	<2ml
% ID >4mm		100	100	100
Charcoal AMS option Y / N		Y	Y	N
Charcoal	common name			
<i>Alnus</i>	alder	2 (0.06g)	-	-
<i>Betula</i>	birch	1 (0.03g)	-	-
<i>Corylus</i>	hazel	2 (0.06g)	1 (0.05g)	1 (0.02g)
Maloideae	apple type	-	-	1 (0.01g)
<i>Populus/Salix</i>	poplar/willow	-	1 (0.01g)	-
Prunoideae	cherry type	1 (0.07g)	-	-
<i>Quercus</i>	oak	1 (0.18g)	3 (0.13g)	2 (0.02g)
Cereals (carbonised)	common name			
<i>Avena/Secale</i>	oat/rye	1	1	-
<i>cf Avena/Secale</i>	oat/rye	-	-	3
<i>Hordeum vulgare cf v vulgare</i>	hulled 6-row barley	-	-	1
<i>Triticum cf aestivum</i>	bread wheat	-	1	-
Indeterminate cereal fgmt.		3	1	2
Seeds (carbonised)	common name			
<i>Rumex</i> sp	docks	1	-	-
Seeds (uncarbonised)	common name			
<i>Cf Doronicum pardalianches</i>	Leopards bane	>50	>150	>20
<i>Sambucus nigra/racemosa</i> fgmt.	elder	1	1	-
Marine shell	common name			
Indeterminate shell fgmt.		-	6	-
<i>cf Ostrea edulis</i> fgmt.	oyster	2 (0.48g)	10 (0.29g)	-

Table 4 Monk Bar Garage sorting results

Context	Sample information (Volumes in L)				Sorting %		Sample weights (g)																			
	Num	Type	Vol	RVol	Enviro	CBM	C.V.	Plant macros	Wood	Bone	Shell	Pottery	CTP	CBM	Metal	Chalk	Glass	Slate	Mortar	Coal	Plaster	Stone			Industrial	
																							Lithic	Wked	Other	Slag
304	1	GBA	10	0.65	100	100	0.19			25.55	0.48	2.32		27.96	4.62	1.97	0.18		17.90			0.02		0.01	0.44	Quartz
305	2	GBA	10	0.35	100	100	0.35			14.65	1.16	1.13		18.96	1.76	0.39			38.14	1.21					1.10	
307	3	GBA	10	0.10	100	100	0.16			13.65				12.10	0.81	14.25	0.64		5.43	0.71						

Table 5 Monk Bar Garage retent sorting results

Context	304	305	307	Total
Sample	01	02	03	
weight (g)	25.55	16.13	15.09	56.77
vole (Arvicolinae.)	2			2
rodent (Rodentia)	3		1	4
frog/toad (Anura.)		2		
fish sp.		1		
medium to large mammal sp.		12	10	22
small mammal sp.		3		3
unidentified	405	178	92	675

Table 6 Monk Bar Garage faunal remains by context

Code		Definition	Comment
Sample	Context Num	Context number Sample number	
	Type	Type of sample	(BS: Bulk sample ; Flot: Flotation; GBA)
	Vol	Sample volume before processing	
	Res. Vol	Residue volume before flotation and sorting	
Sorting %	Enviro	All environmental material.	Should always be 100% except specific circumstances like a very large amount of charcoal. In this case it should be mentioned in the text that charcoal was only 50% sorted for instance.
	CBM	Ceramic Building Material	Usually less than 100%, especially if large quantities
Sample weights (g)	C.V	Charred Vegetation	
	Plant Macros	All plant macrofossils	e.g. seeds, nut shells, roots, etc.
	Wood		
	Faunal	Animal and human remains	All bone material including teeth, antler and horn cores, horn, fish, bird and amphibian, eggshells.
	Shell	Freshwater and marine molluscs	
	Pottery	Ceramics	Pottery, e.g. sherds and rims
	CTP	Clay Tobacco Pipe	
	CBM	Ceramic Building Material	Brick, tile, chimney, clay pipe, etc.
	Metal		
	Glass		
	Slate		
	Mortar		
	Coal		
	Plaster		
Stone	Lithic	Stone tools and debitage	e.g. worked flint, chert, quartz etc.
	Wkd	Worked stone including masonry	e.g. quern stone, entablature, etc.
	Other	Anomaly or noteworthy	
Industrial	Slag	Metal and glass slag	
	Other	Other industrial material/products	e.g. lime

Table 7 Northlight soil sample sorting codes