



23 CLIFFORD STREET

YORK

ARCHAEOLOGICAL EXCAVATION



**REPORT
JUNE 2011**



ARCHAEOLOGICAL EXCAVATION
23 CLIFFORD STREET
YORK

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FIELD REPORT
September 2011



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Summary

This document constitutes a Level 3 Field Report on the results of assessment and analysis of an archaeological excavation undertaken by Field Archaeology Specialists (FAS) Ltd at 23 Clifford Street, York. The excavation was designed to mitigate the effects of redevelopment of 23 Clifford Street from a two-storey to a five-storey building and fieldwork was undertaken for Derwent Vale Properties Ltd. Fieldwork was undertaken in stages between the 7th December 2007 and 18th September 2008. Post-excavation assessment and analysis was undertaken during 2011 on behalf of Sanderson Weatherall LLP.

The new building required a substantial foundation system consisting of a ring beam to support the principal existing walls of 23 Clifford Street and a system of piles. The excavated area totalled 20m x 6m and was excavated throughout the building to a depth of 1m below basement level with a central trench excavated a further 0.3m along a central line of piles.

Four principal periods of activity were identified. The earliest activity was assigned a late 9th to 11th-century date and took the form of soils spreads, possibly levelled middens, although residual Roman and Anglian material was also present throughout the sequence and may have originated at the site. Post-Conquest activity was also identified and took the form of developing soil layers and scattered pits, hearths and a possible boundary ditch dated to the 11th to 13th century. This period preceded monastic activity relating to the Franciscan friary founded *c.*1243. Features relating to the friary included a large robbed stone wall, a drain and well, and scattered rubbish pits dating from the 13th to late 15th century. This was succeeded by a series of trench- or ditch-like features containing demolition material which may have originated during the life of the friary during a late major rebuilding episode or in the immediate post-Reformation period. Activity succeeding the friary was restricted to garden soils and features and eventually saw the construction of 23 Clifford Street itself in 1883.

Acknowledgements

FAS are grateful to John Oxley, Principal Archaeologist, City of York Council for his sustained support during the project.

1.0 INTRODUCTION

This document constitutes a Level 3 Field Report on the results of assessment and analysis of an archaeological excavation undertaken by Field Archaeology Specialists (FAS) Ltd at 23 Clifford Street, York. The excavation was designed to mitigate the effects of redevelopment of 23 Clifford Street as a five-storey building and fieldwork was undertaken for Derwent Vale Properties Ltd. Fieldwork was undertaken in stages between the 7th December 2007 and 18th September 2008. Post-excavation assessment and analysis was undertaken during 2011 on behalf of Sanderson Weatherall LLP.

1.1 LOCATION AND LAND USE

Number 23 Clifford Street (Figure 1; NGR: SE 6038 5153; Plate 1) is situated on the east side of Clifford Street, opposite York Magistrate's Court and York Fire Station, and is bound to the south and north by office buildings, and to the east by the rear of the Regimental Museum, the latter fronting onto Tower Street. Number 23 Clifford Street was constructed in the late 19th century and at the outset of fieldwork consisted of a two-storey building including basement.



Plate 1 Number 23 Clifford Street looking southeast prior to development

1.2 AIMS AND OBJECTIVES

The aim of the excavation was to mitigate the effects of redevelopment of the building on archaeological deposits by preserving them by record. The development of the building required a new foundation system requiring the reduction of internal basement level.

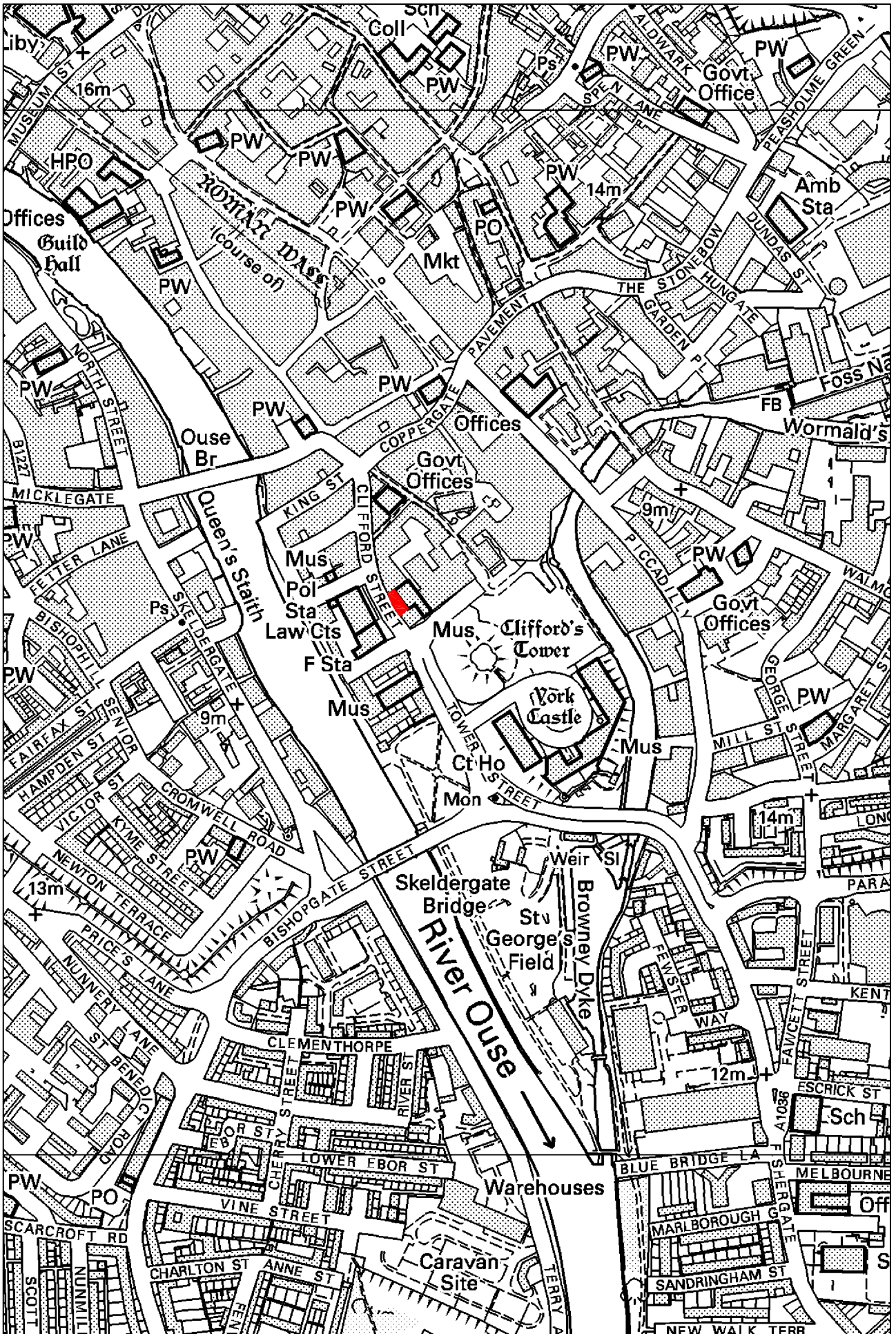
The excavation was undertaken in accordance with a final Project Design prepared by FAS and approved by John Oxley (Appendix A).

1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Archaeological evidence from the immediate vicinity of 23 Clifford Street has demonstrated activity in this area from the prehistory to the modern day.

1.3.1 Prehistoric activity

Some limited evidence for prehistoric activity has been encountered. To the southwest, a crouched burial in a stone cist was encountered during underpinning of Clifford's Tower in 1902, predating subsequent Roman activity at the site.



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Location map

Scale 1:5000



Figure 1



1.3.2 Roman period

A Roman road leading from the southwestern gateway of the Roman fortress to the southeast has been projected along the route of Castlegate (RCHME 1962, map), and the area to the south of the site was occupied by an extramural cemetery. Roman burials have been encountered archaeologically at the northern edge of the castle bailey since 1824, the most recent discoveries being burials discovered during the installation of a drain in 1956. A range of evidence has been encountered, including stone coffins, with inscriptions referring to centurions, lead coffins and wooden coffins (Ramm 1956-8, 400ff; RCHME 1962, 69).

Further north and west, towards the fortress, evidence for Roman settlement has been encountered; this would have formed part of the extramural settlement of the *canabae*. In 1871, a mosaic pavement was discovered adjacent to St Mary, Castlegate, apparently under the 'buttress on the left side of the entrance door'. In addition, a column base was located in front of Castlegate house in 1883 (RCHME 1962, 59). Slightly further to the north, a number of structures were discovered during the excavations of 16-22 Coppergate, immediately north of the castle, consisting of timber structures dated to the late 1st to 2nd century and later stone buildings (Ottaway 1993, 67).

1.3.3 Anglian period

There is some evidence to suggest that the Roman cemetery in the area of York Castle may have been reused during the Anglian period; the presence of a well-preserved hanging bowl of early 7th-century date, and a Coptic bowl of similar date have been interpreted as evidence for furnished graves (although doubt has been cast on the provenance of the latter; Tweddle, Moulden and Logan 1999, 236). The former was reportedly found in 1828 with two 'earthen bowls', now lost.

Stratigraphic evidence for the Anglian period was encountered at 16-22 Coppergate, to the north of Clifford Street, where a thick grey layer was found overlying Roman deposits, interpreted as the accumulation of natural deposits reflecting a relatively deserted area. Anglian features were confined to a wood-lined pit, which contained the 8th-century Coppergate helmet, and an inhumation which has been dated to the later Anglian period. The apparent lack of activity does, however, seem to be at variance with a large number of Anglian finds discovered in later deposits, including coins, ceramic and metalwork (Tweddle, Moulden and Logan 1999, 195-8). Possible explanations include a chronological distinction between the accumulation of grey loam and the activity represented by the finds, or artistic conservatism on the part of the later, Anglo-Scandinavian occupants. The lack of secure evidence for Anglian activity is also reflected at 5-13 Clifford Street, c.70m north of the site, where Roman deposits were overlain directly by dumping and pit digging of Anglo-Scandinavian to medieval activity (YAT 1991).

Closer to the site, a number of finds of Anglian date were recovered during the creation of Clifford Street in the 1880s. These included a lead alloy cross, bearing the imprint of a styca of King Osberht (AD 849-867), a styca of Aethelred II (AD 840-848), sceat of Eanred (c.810-840), decorated bone pins of 8th-century date and dressed and decorated antler tines, dated art-historically to the 9th century. More recent archaeological investigations have encountered Anglian finds residually, including Ipswich ware from 5-13 Clifford Street. Together, the

evidence points towards increased activity towards the later Anglian period, the 8th- to 9th-century, the nature of which remains uncertain.

There is evidence for a pre-Conquest church reusing Roman building stone on the site of St Mary's, Castlegate. Work undertaken during its conversion to a visitor centre uncovered reused Roman capitals and column drums, as well as 10th-century sculpture. Two fragments of reused Roman stone recovered from the chancel arch foundation may date to the 7th-century or later and suggest a substantial stone building in the vicinity in the Anglian period (Tweddle, Moulden and Logan 1999, 186).

1.3.4 Anglo-Scandinavian period

By the Anglo-Scandinavian period, many of the streets and lanes of the area had been established, probably incorporating the water lanes that ran from Castlegate to the river, prior to the construction of Clifford Street. These are documented from the 12th-century onwards, known as Kergate/Cargate or 'First Water Lane' (now King Street), Thursgayl or 'Middle Water Lane' (now Cumberland Street) and Hertergate or 'Far Water Lane' (no longer exists)(Raine 1955, 202).

The greatest concentration of evidence for occupation has come from the Coppergate excavations, to the north of the Clifford Street site. This revealed evidence for intensive occupation established between the late 9th century and *c.*930-5, with a series of long narrow tenements bounded by Coppergate and the river Foss. The buildings, with their gables facing onto the street, were of post-and-wattle construction, with backyards defined by wattle fence alignments running down to the Foss (Richards 1991, 48). The buildings were replaced by a series of sunken plank-built buildings *c.*975. The final addition to the site was made early in the 11th century, when a large building interpreted as a boat shed or warehouse was erected towards the river (Richards 1991, 48).

In addition to the possible 7th-century origin of St Mary's Castlegate, it has been suggested that the church originated as a pre-Conquest minster, which would have served the inhabitants of the castle during the medieval period (RCHME 1973, 60). Potentially associated with an ecclesiastical establishment were a number of burials encountered during an archaeological evaluation by York Archaeological Trust, at the northeast end of the former Female Prison building. The graves were laid out in an orderly manner on a similar alignment, and while only two inhumations were excavated, many more are reported to have been visible in the sides and base of the trench. The graves were accompanied by well-stratified ceramic evidence (YAT 1998). It was concluded that the site continued in use as a cemetery into the early medieval period, potentially associated with the closest surviving early church of St Mary's, some 200m distant.

1.3.5 Medieval period

York Castle

By 1068, the castle had been established. The site of 23 Clifford Street would have been situated immediately north of, if not within, the bailey of the Norman Castle. Additions and repairs to the castle are recorded throughout the 12th and first half of the 13th century, but in the 1240s an ambitious programme of rebuilding

the castle in stone was started by Henry III - a project largely completed by the end of Henry's reign. Part of these works included the construction of a large quadrilobe tower of unique design on the motte, the building now known as Clifford's Tower. From this period at least, the Clifford Street site would have been outwith the castle boundary.

Franciscan Friary

In 1243, a Franciscan friary was established at the site of Clifford Street, adjacent to the castle bailey. The friary is likely to have incorporated ample accommodation and fine buildings; when in York, Kings Edward I, II and III took up residence there. The main entrance to the friary was in Castlegate, opposite St Mary's Church; the gateway is documented in 1314 (Raine 1955, 204). Little structural evidence has survived relating to the priory. The church is known to have been situated near to the main entrance in Castlegate, documented in wills until the early 16th-century (Raine 1955, 205). The walls, constructed in the 13th-century, partly survived into the 20th (Raine 1955, 203-4). The route of the walls can be traced on the Ordnance Survey edition of 1855 (Plate 2). The eastern boundary of the site curves around Tower Street, as it existed at the time, presumably following Castlegate northwards, to a northern point close to the Rectory on Castlegate. From here, the boundary followed property boundaries, on a northeast to southwest alignment towards the river.



Plate 2 Extract from 1852 OS

An inhumation burial, possibly relating to the friary, was encountered during a watching brief at 15 Clifford Street/Friends Meeting House, in 1980 (YAT Gaz. 1980.1016). An evaluation of the site at 23 Clifford Street revealed evidence of medieval to post-medieval date, including a post-in-trench structure and a single inhumation burial. Robber trenches, presumed to be associated with friary structures were located, and architectural stone deriving from these buildings was recovered (YAT 1990).

1.3.6 Post-medieval period

The friary was dissolved in November 1538, and following the demolition of perhaps the majority of the friary buildings the land appears to have been used for horticultural purposes. The demolition of the friary is recorded by an absence of structures depicted by Speed by the early 17th century, although the will of William Harper in 1557 bequeaths 'the late Frears garth in Castlegate...the lyme kilns and the dovecote...[an] orchard wythin the laite Frears gaites adjoining upon Castlegate' to his wife and son respectively (Raine 1955, 204). Raine suggests the presence of lime kilns at the former friary site provides a possible fate for the large quantities of limestone produced by demolition of buildings of the friary complex.

Speed's map of 1610 shows the layout of streets at that time showing the medieval water lanes leading from Castlegate to the river. The current site would have formed part of an area that Speed appears to show as open ground within the former friary boundary, although this may be due to the level of detail he chose to show.

Archer (1680) and Richards (1685) show much the same situation, with little detail, but indicating open ground, divided into parcels, with vegetation indicated by trees. Drake, in 1736, appears to show the area given over to ornate gardens (Plate 3) and both Chassereau (1750) and Jefferys (1772) also indicate gardens, with boundaries within them.

1.3.7 Modern period

The Ordnance Survey edition of 1852 shows the site in detail, indicating clearly that the 23 Clifford Street site was occupied by gardens at this time. A large house, fronting onto Tower Street, occupied the southern part of the site, while the garden was served with winding paths and possible flower beds.

The whole area was subject to intense redevelopment in the latter part of the 19th century, when Clifford Street itself was created. The water lanes formerly extending from Castlegate were bisected by the newly established road, built in 1880-2. Number 23 Clifford Street was constructed on its current footprint at this time; the dedication plaques at the site date the onset of construction to 1883 and record the architect, a W.G.Penty (Plate 4). A contemporary photograph shows the structures along Clifford Street under construction. The law courts were open ground, and the newly-widened Lower Friargate can be seen as a raised causeway. The photograph shows the northeastern corner of the property as open ground, bounded by a high wall with a lean to structure within, all of which must have been demolished prior to the construction of the extant building (Plate 5).

2.0 EXCAVATION STRATEGY

Following the formulation of an archaeological mitigation strategy for the site, excavation strategy was largely led by the project structural engineers, Dossor Group, and was undertaken in three phases (Figure 2). These phases of excavation were informed by an initial series of six test pits designed to evaluate the nature of the foundation of 23 Clifford Street and the first 1000mm



Plate 3 Extract from Drake's map of York 1736



Plate 4 Memorial stone on 23 Clifford Street



Plate 5 Photograph of 1880s looking west



- Key
- Intervention 1
 - Intervention 2
 - Intervention 3
 - Intervention 4
 - Intervention 4 - Central trench
 - YAT Trench excavated to 0.50m depth
 - YAT Trench excavated to subsoil

Excavation sequence

Scale 1:100



Figure 2



of strata, allocated Intervention 1 (Test pit 1 to 6). The first phase of excavation consisted of intermittent 2m lengths of ring beam trench linked by four strip trenches oriented across the site west-east which were to be reinforced with steel and concrete. These were designed to strengthen the building's foundations and support the lateral walls of the building prior to the insertion of a reinforced concrete ring beam (Intervention 2). The second stage consisted of the complete excavation of the area of concrete ring, which could not be undertaken continuously for reasons of structural instability. The ring beam was excavated in alternating *c.*2.0m lengths which were secured with reinforced concrete and then intermediate lengths could be excavated safely. The third phase consisted of the reduction of basement level throughout the building to accommodate the raft foundation (Intervention 3) which took place between the positions of the strip trenches including a deeper central trench along the line of pile caps (Intervention 4).

The existing basement of 23 Clifford Street revetted the east side of Clifford Street and excavation below its walls needed to be strictly controlled to ensure structural stability at all times. This resulted in an uncommonly complex excavation strategy and, while no archaeological deposits were excluded from stratigraphic hand-excavation prior to the insertion of the new foundation, excavation of the large 20.0 x 6.0m area represented was in fact undertaken in a total of 38 smaller interventions. This approach lacked the benefits of wide-scale exposure of archaeological deposits and features and made effective photographic recording difficult while also intensifying the process of written recording with the allocation of many more context equivalents than would otherwise have been necessary. Due to the excavation procedure the installation of the new foundations by contractors had to be undertaken at the same time as staged excavation (Plate 6). For the first few weeks of excavation the internal basement walls and roof of 23 Clifford Street were retained resulting in the need for internal lighting and flash photography. The staged demolition of the internal walls was facilitated by a counter-weighted external scaffold supporting the external wall and roof, which also allowed the removal of the roof tiles and rafters which improved conditions for photography and definition of archaeological deposits.



Plate 6 General view of site at the closing stages of excavation

2.1 PHASE 1

The first phase of excavation followed Intervention 1 and consisted of the excavation of four strip trenches oriented across the site west-east connected to intermittent trenches of the ring beam. The strip trenches measured 1.0m wide and spanned the building's width west-east and were excavated to the depth of the main raft foundation and ring beam. Following excavation of the strip trenches reinforced concrete was cast within the trenches to strengthen the lateral foundations and walls of 23 Clifford Street.

2.2 PHASE 2

The second phase consisted of the excavation of a rectilinear trench to receive the ring-beam foundation and

two alignments of pile cap positions. The trench measured 1.0m wide x 1.0m deep and was positioned at the internal perimeter of the building (see Figure 2). A safe working method, specified by the project structural engineer consisted of intermittent lengths of the ring-beam foundation trench being excavated between reinforced concrete of the Phase 1 strip trenches, followed by the construction of the concrete collar of the ring beam in the open lengths of trench. Following further consolidation, excavation continued to link the trenches and complete the ring-beam foundation.

2.3 PHASE 3

Phase 3 consisted of the excavation of the remainder of the building's interior to a depth of 1.0m below original basement level and the excavation of a central 1.0m wide strip along a central alignment of piles to 1.3m below original basement level. This was undertaken in three main sections between the link trenches.

2.4 EXCAVATION PROCEDURE

Excavation was undertaken entirely by hand and in a controlled and stratigraphic manner. Two principal sections were recorded representing composite east- and west-facing sections and sections of strip trenches were drawn where they intersected important sequences not present in the main lateral sections.

2.5 RECORDING PROCEDURE

A full written, drawn and photographic record was made of all deposits encountered during the course of the excavation. The excavation and recording system employed during fieldwork is based on a set of principles known as *Field Research Procedure* (Carver 1999). This recording system structures excavation data in an hierarchical system: deposits defined during excavation, which are considered to have been formed by a single action, are defined as 'contexts' (standard stratigraphic units); sets of contexts are defined as higher order stratigraphic units defined as 'features'; groups of features can be defined as belonging to 'structures'. Thus, where appropriate, contexts are grouped during excavation as 'features', and similarly, features into groups called 'structures'; feature records are additional to, not alternative to, context records (*ibid* 158). Separate indices were maintained for contexts and features, and each index has a structured pro-forma recording sheet to be completed using a system of keywords. All interventions shared a single index for contexts starting at C1000 and for features starting at F1.

In addition to the hierarchical recording system, predetermined recovery levels are employed ranging from Recovery Level A to E, representing increasing levels of investment and intensity of investigation. For the purposes of excavation, Recovery Level C was predetermined and applied during fieldwork. This recovery level consists of trowel definition, finds recovery by 3-D from occupation or craft-working deposits or by context from feature fills and layers, as well as targeted sampling - in this case, in accordance with the project's predetermined environmental sampling strategy (see Appendix A). Contexts required full written description and hand-excavation, while features required a post-excavation hachure plan and photograph, full written description, half-section drawing where the feature did not appear in the main sections of the excavation. All site drawings were drawn at 1:10 and survey was undertaken using a Total Station Theodolite.

All primary contexts or refuse deposits were subject to 100% coarse dry-sieving (10mm mesh) where practicable. Contexts containing fish bones were subject to 100% fine-mesh sieving (1mm mesh).

3.0 FIELDWORK RESULTS

For the purposes of the following narrative, alignments have been simplified to follow the cardinal points and the orientation of the excavation as north-south.

Dating of the sequence relies primarily on ceramic dating which has been used to calibrate the stratigraphic diagram (Figure 3; Appendix B, Table 2). The following discussion assimilates the results of specialist studies of the material assemblage throughout. A total of four broad periods of occupation were indicated by the ceramic profile (Table 1).

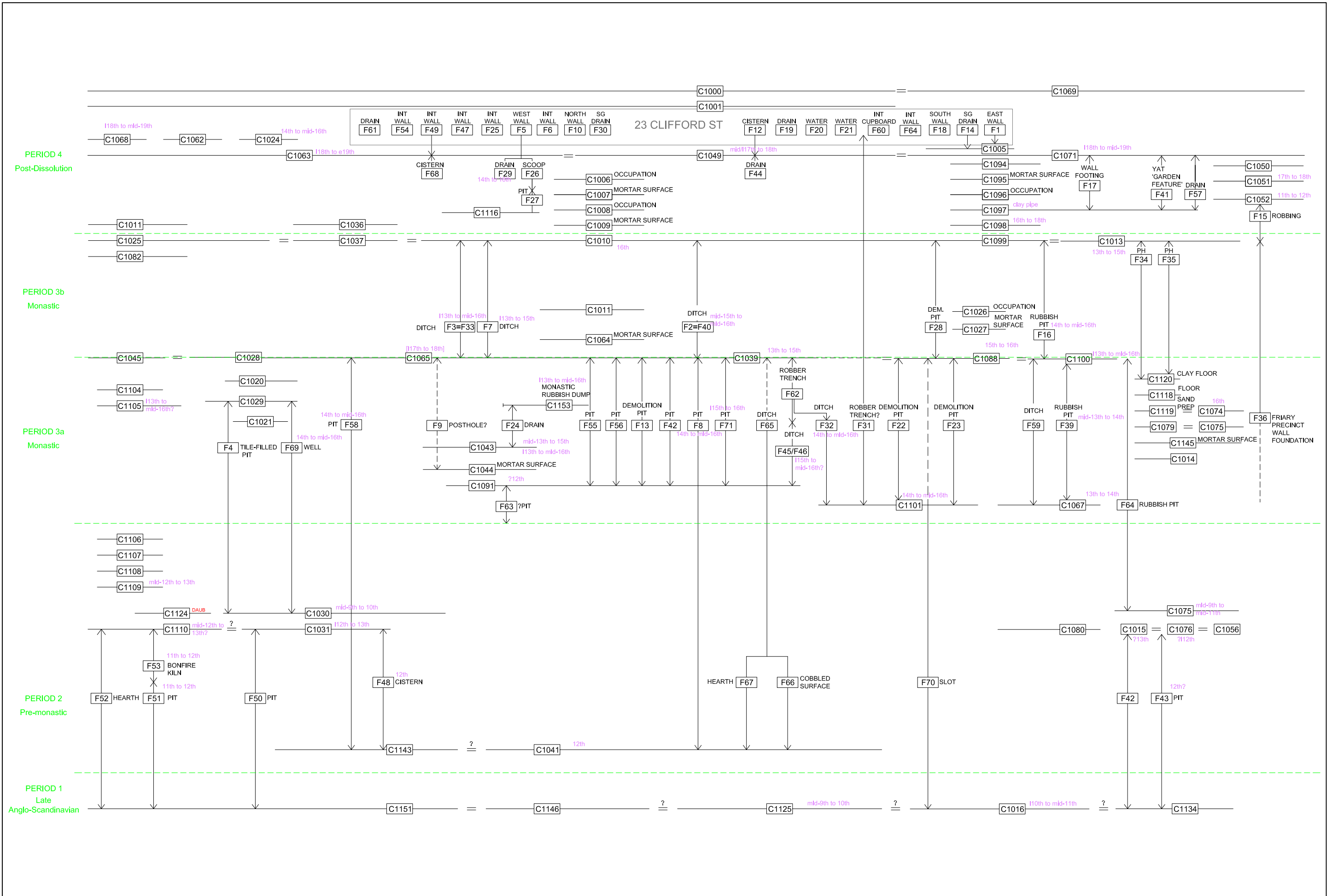
Table 1 Summary of periods and activity

Period	Date	Activity
1	9th to mid-11th century	Occupation, ?middens, craft-working
2	11th to mid-13th century	Occupation
3a	mid-13th to late 15th century	Monastic occupation, ?structure
3b	late 15th to early 16th century	Monastic occupation, ?friary demolition
4	mid-16th to late 19th century	Gardens and orchards, construction of 23 Clifford Street

3.1 PERIOD 1 - LATE ANGLO-SCANDINAVIAN (9th to mid-11th century)

The earliest layers encountered during excavation were identified as C1151, C1146, C1125, C1016 and C1134. These layers were invariably contacted at the required excavation level (*c.*7.8m to 8.1m AOD) and were not excavated to their complete depth; although in most cases the excavated level required some reduction of their depth which allowed some dateable material to be recovered while the excavation of the deeper central pile trench down to *c.*7.8m AOD allowed further investigation (Figure 4 and 5).

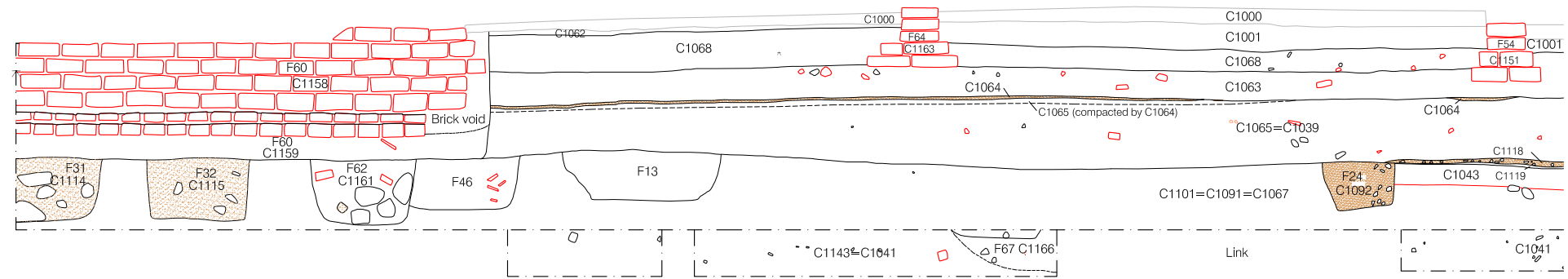
Material recovered primarily from soil layer C1125 has been used to define these layers as a group deriving from late Anglo-Scandinavian occupation. Material recovered from C1125 included sherds of residual Roman ceramic of 3rd-century date and Middle Saxon handmade ware of mid- to late 9th-century date (Appendix C). Diagnostic material was recovered in the form of nine sherds of York ware representing five jars, providing a mid-9th to late 10th century date. A small number of sherds was also recovered from C1016 including two sherds of Torksey-type ware of mid-9th to 11th-century date and a sherd of Reduced Chalky ware considered to be intrusive. Animal bone recovered from C1016 provided a little insight into the nature of the deposits with cattle, sheep/goat, pig, domestic fowl and red deer represented and generally indicative of the deposition of domestic food refuse (Appendix D).



Stratification diagram

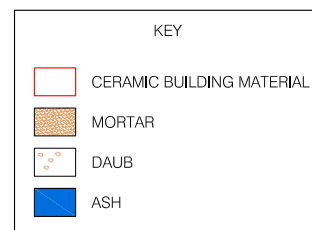
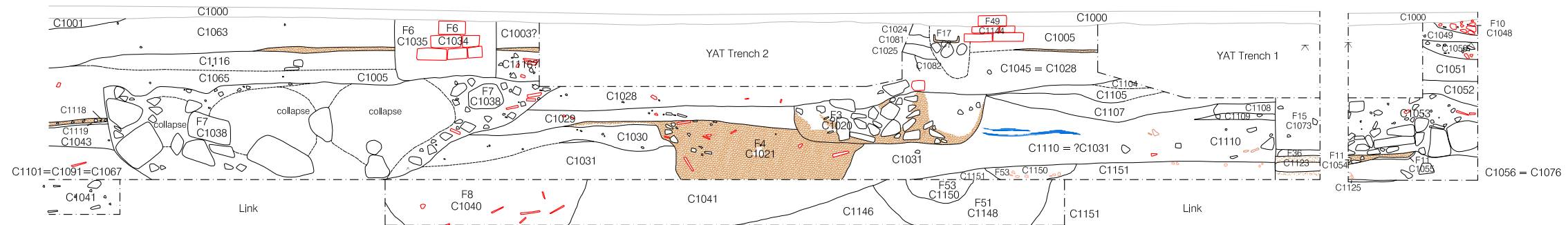
Figure 3

S
460386.72 / 451516.96
9.12m



S N
460377.24 / 451534.66 460376.69 / 451535.39
9.14m 9.14m

N
460376.71 / 451533.87
9.12m

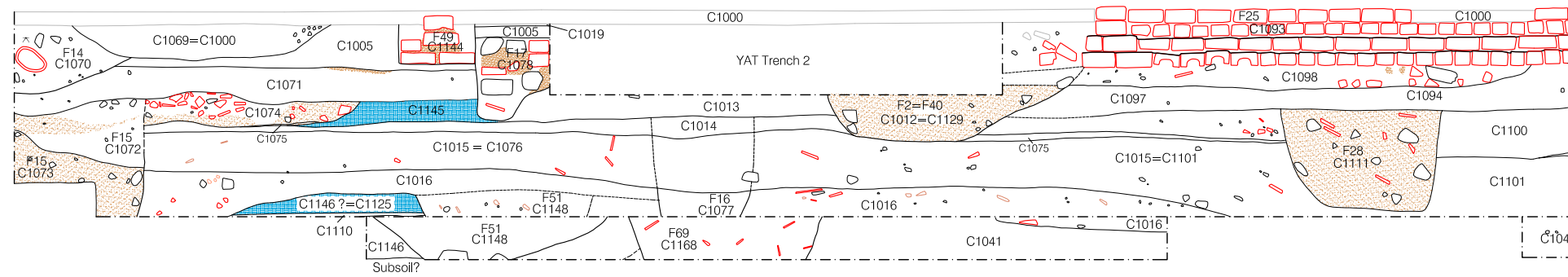


East-facing principal section

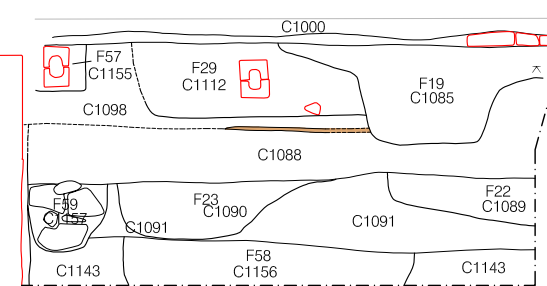
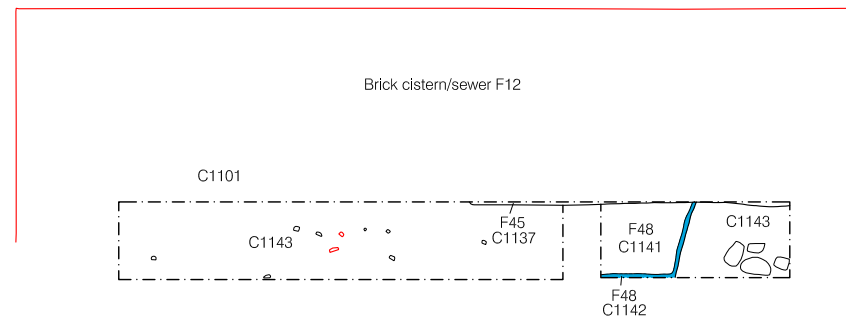
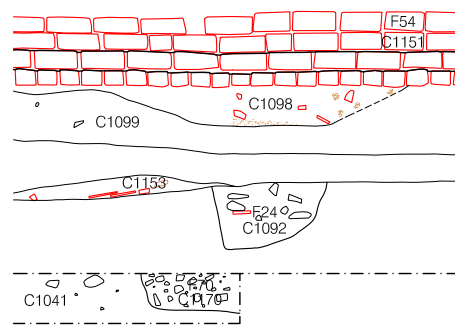
Scale 1:40

Figure 5

NW
460378.96 / 451536.15
9.22m



SE
460390.77 / 451520.02
9.22m



KEY

	CERAMIC BUILDING MATERIAL
	MORTAR
	DAUB
	CLAY

West-facing principal section

Scale 1:40

Figure 6

3.2 PERIOD 2 - PRE-MONASTIC (11th to 13th century)

A small group of features was identified, again generally at or close to the required excavation depth, cut into Period 1 layers C1151, C1146, C1041 and C1016 and in some cases into a reddish-brown clay which may represent natural subsoil although this could not be tested (Figure 6). Those which yielded dateable material suggested they dated to the 11th to 12th century, but in many instances also produced recycled material of early medieval date. A number of features grouped within Period 2 lay towards the northern end of intervention and were identified as hearth F52, possible ditch F51 and pits F50 and F53. More dispersed Period 2 features were also identified through the rest of the area of intervention and were identified as pits F43 and F42, possible cistern F48, and hearth and associated cobbled surface F66 and F67.

The northern group of features were notable for their contents as they yielded a marked quantity of residual material indicating occupation at the site predating the Anglo-Scandinavian phase. Possible ditch F51 measured a minimum of 3.6m, oriented broadly west-east disappearing beyond the eastern limit of excavation and overlain by F53 at its western end. A segment of the feature was excavated but not bottomed where it was intersected by the central pile trench (Plate 7). The possible shallow ditch produced an annular clay loomweight, residual 4th-century pottery and 10 sherds of diagnostic pottery including Gritty wares and Torksey-type ware, generally indicative of an 11th- to 12th-century date. Possible ditch F51 was overlain at its western end by F53, identified as a possible hearth or the remains of a bonfire kiln. F53 produced another fragmentary annular loomweight, possibly a waster, as well as an assemblage of daub, many fragments of which bore wattle impressions. The loomweights are not likely to date later than the late 10th century and join a residual bone thread picker (from C1063) as some evidence for early medieval textile working at or close to the site (Appendix E). Pottery recovered from F53 included residual Middle Saxon Maxey-type ware and Anglo-Scandinavian York and York Handmade ware alongside Torksey-type ware indicative of a likely late 11th-century date for the feature. F51 also yielded a residual Roman coin which was poorly preserved and only identifiable as a copper-alloy radiate of later 3rd-century date (Appendix F). F51 and F53 produced assemblages of animal bone and oyster shell indicative of a diet based mainly on cattle but with some sheep/goat and pig and the presence of deer (see Appendix D; Appendix G).

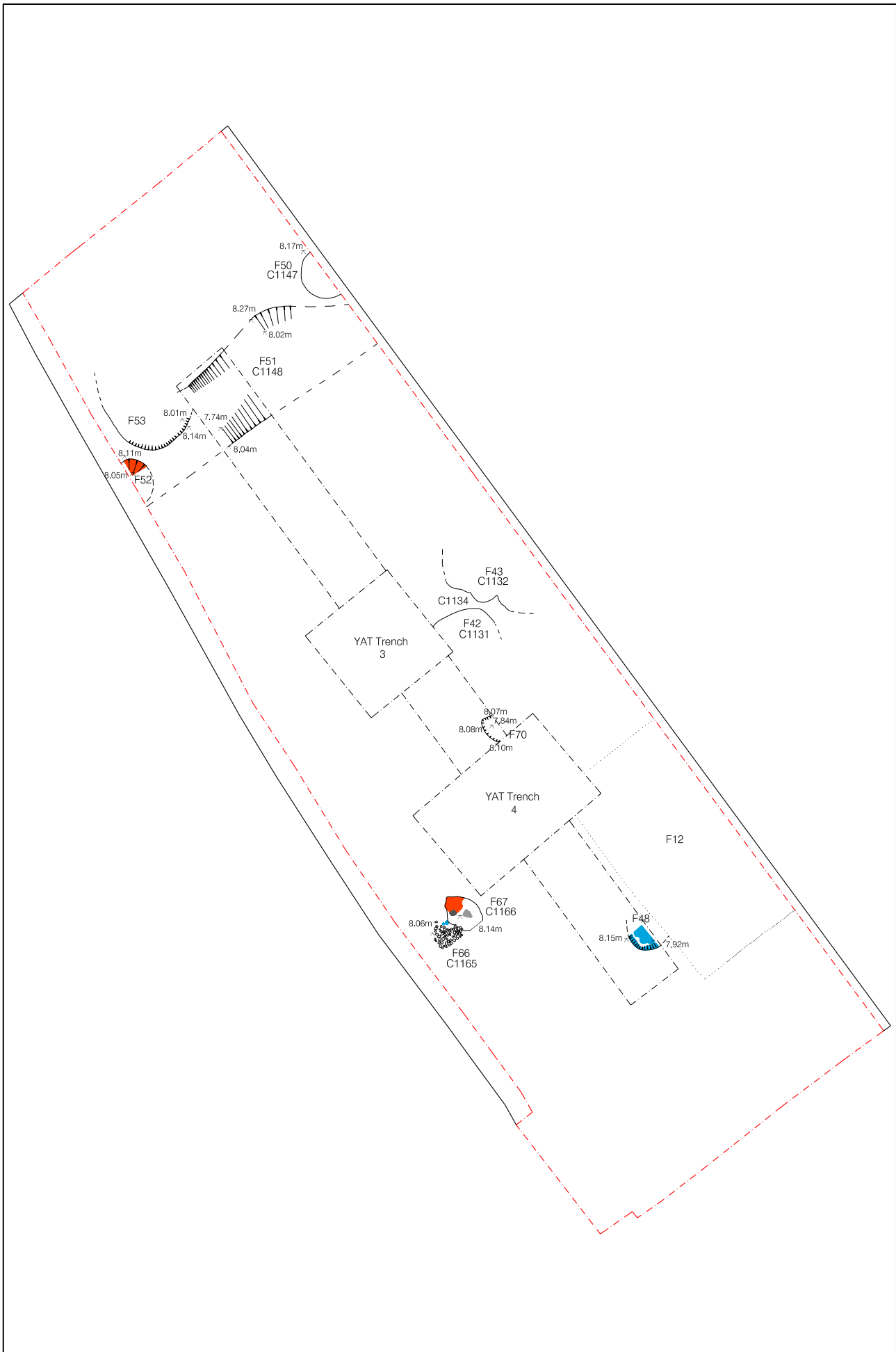
Adjacent to F53 a small hearth was defined lying partially within the area of intervention and assigned F52 (Plate 8). Hearth F52 appeared as a discrete area of brightly-coloured ash defined at the required excavation depth and was left *in situ*. At the east end of ditch F51 a further Phase 2



Plate 7 Ditch F51 within central pile trench (north end)(scale 1.0m)



Plate 8 Hearth F52 and pit F53 pre-excavation (scale 0.5m)



Plan of Period 2 features Scale 1:100  Figure 6

feature was identified again only partially within the area of intervention assigned F50. Encountered 0.10m above the required excavated depth the feature was partially investigated, but produced no material indicative of date or function.

More dispersed Period 2 features were identified across the are of intervention and included two pits (F42 and F43), a hearth, possible posthole or slot (F70) and adjacent cobbled surface (F66 and F67) and an adjacent possible cistern (F48). Pit group F42 and F43 were encountered close to the required excavation depth cut into stiff red clay C1134. Two sherds of pottery were recovered from partial excavation of F43 and were identified as sherd each of Gritty ware and Splash Glazed ware of possible 12th- to early 13th-century date.

Hearth F67 consisted of a small scoop filled with highly compacted ash deposits and was flanked on its west side by a small cobbled area F67. Both features were encountered at the required depth and no further investigation was warranted. To the southeast of these features, 2.7m away, a small clay-lined pit was encountered and interpreted as a possible cistern (F48). The clay lining (C1142) clung to the sides of the feature and had probably once lined the base entirely perhaps to contain liquid contents (Plate 9). F48 was backfilled once with C1143, a deposit of clayey silt indistinguishable from the overlying layer, and yielded a single sherd of Beverley Orange ware of probable 12th-century date.



Plate 9 Cistern F48 post-excitation showing clay lining C1142 (scale 0.5m)

A number of soil layers were identified sealing the Period 2 features and had accumulated prior to the onset of Period 3 activity (C1015, C1031, C1056, C1075, C1076, C1080 and C1106 to C1110). Material recovered from these layers included a residual Anglo-Scandinavian presence along with Gritty and Splashed glazed wares broadly indicative of deposition during the 11th to 13th century. Notably, C1076 contained a total of six residual sherds of Middle Saxon pottery including three of Ipswich-type ware, and a sherd each of York Handmade type, Early Fine-shelled ware and an imported sherd with red paint trail, possibly part of a jug or pitcher from France. The presence of several sherds of ceramic of late 8th- to 9th-century date redeposited in a single layer suggests that deposits of Anglian date were disturbed fairly directly.

3.3 PERIOD 3 - MONASTIC (mid-13th to mid-16th century)

The next period of activity manifest at the site has been described as monastic since the site is known to lie within the former precinct of the Franciscan friary, founded in 1243. The activity related to Period 3 consisted either of the disposal of rubbish in the form of scattered pits or of groups of linear trench- or ditch-like features filled with demolition material. A notable exception is the presence of a substantial robbed wall proposed as the possible remains of an intra-precinct wall or part of a structure. Adjacent to and parallel with this wall were two postholes, a likely well and a drain which constitute the only evidence for primary and structural activity. Early activity within this area of the precinct was restricted to a few discrete rubbish pits used to dispose of food

waste. Caught up among this rubbish were artefacts and waste providing insight into activities, buildings and lifestyle. These features are assigned to the sub-period 3a and the latest date for features within the group was provided by a likely contemporary loss of a French jetton of mid-15th-century date from pit F8.

Features and activity post-dating this early group are assigned sub-period 3b and mark a change in use of this area of the precinct. Large ditches or trenches, excavated parallel to one another and closely set, filled with demolition debris, characterise this phase. Two such features were clipped by YAT Trench 3 and were interpreted, with due cause, as robber trenches. Excavation of the features on a wider scale allowed more of their characteristics to be appreciated and they clearly did not represent the robbed remains of friary buildings which must lie elsewhere. Dating these features closely is problematic and their function also remains open to interpretation. Most trenches did not contain dateable material other than the demolition material itself which of course is not diagnostic of the date of excavation, rather the date of the demolished buildings. The few features which did contain dateable ceramic material often only produced clearly residual sherds or single late medieval sherds. These features may represent a deliberate refuse disposal strategy during a significant phase of building during the lifetime of the friary and, if so, of the late 15th to early 16th-century. Alternatively, the features belong to the peri-Reformation period and relate to the demolition of the friary buildings soon after the suppression when by at least 1557 the friary land is known to have been given over to orchards and much of the building stone converted to quicklime. So it is with some circumspection that the phase is identified as belonging to the latest period of friary activity, and it is acknowledged that the features could represent activity of the immediate post-Reformation period.

3.3.1 Period 3a (mid-13th to mid-15th century)

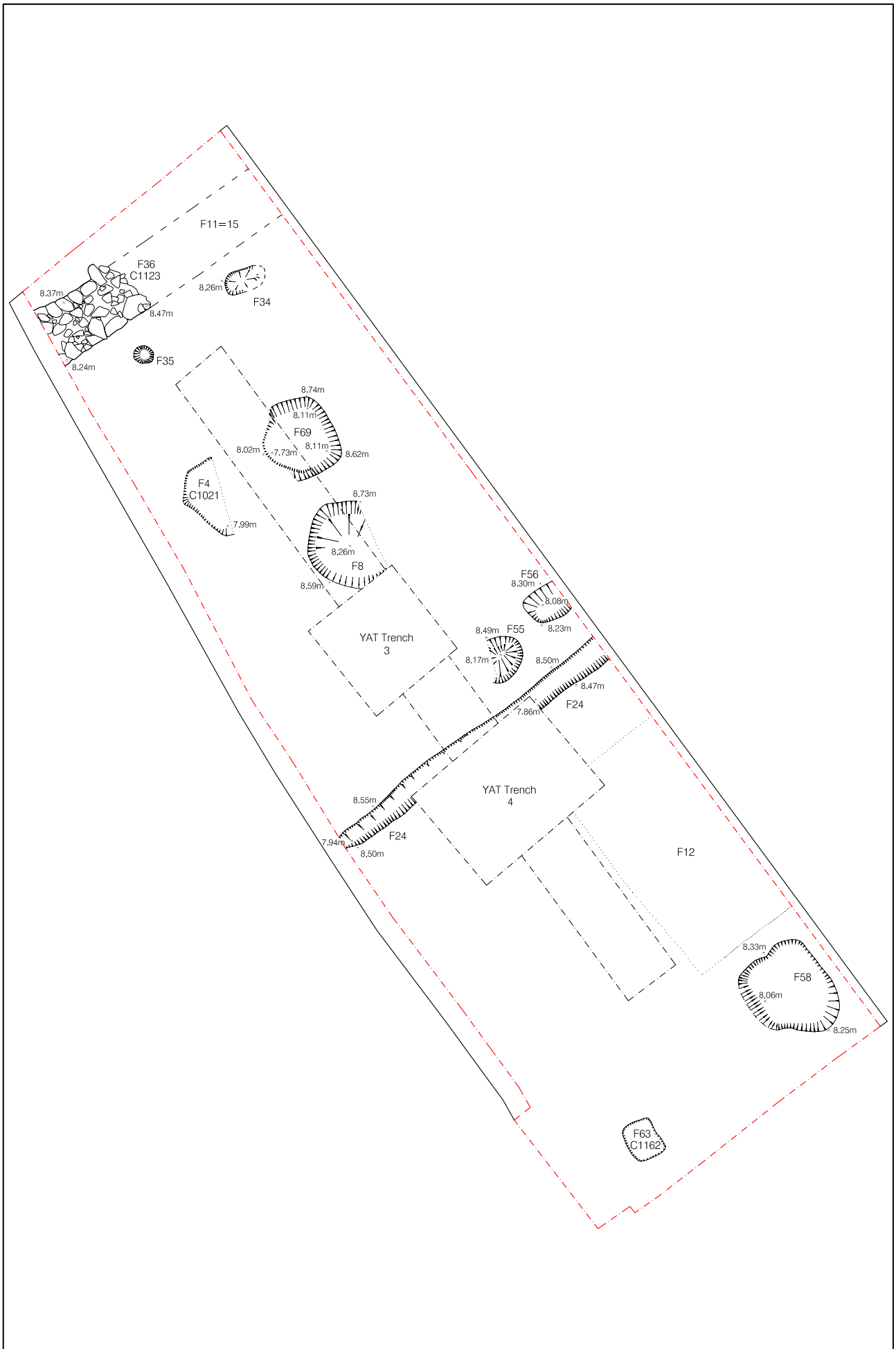
Features assigned to Period 3a were defined cut into the soils which sealed Period 2 features and were generally well-defined against them being commonly filled with fragmentary roof tile and lime mortar. Along with these scattered features structural features defining the precinct and its organisation were also identified (Figure 7).

Wall and associated features

At the northern end of the area of intervention a large robber trench (F11=F15) was identified oriented broadly east-west spanning the intervention and continuing beyond its western and eastern limits. The sample measured nearly 6.0m long and 1.3m wide being up to 0.6m deep. This robber trench was largely what remained of what had clearly been a substantial limestone wall with the exception of a small area of articulated limestone masonry foundation (F36 C1123)(Plate 10). Two possible postholes were identified close to the line of robbed wall F36, cut into a patchy clay surface C1120 assigned F34 and F35. Both features were filled with limestone blocks, possible packing stones. C1120 was cut by the robbing of F36 and is assumed to have originally been contemporary with the wall having probably abutted its standing masonry. F34 produced a sherd of Brandsby-type ware of mid-13th- to 14th-century date. There was no sign of robbed wall F36 being associated with



Plate 10 Portion of wall foundation F36 pre-excavation (scale 0.5m)



Plan of Period 3a features

Scale 1:100



Figure 7



surfaces which may have belonged within a building and the feature is considered most likely to represent a free-standing boundary wall. However, the wall was encountered at the northern end of intervention and since so little investigation to its north was possible the chance remains that it represents the south external wall of a building.

Set parallel to wall F36 and offset to the south by a distance of 10.0m was a linear drain allocated F24. F24 appeared first within a small ring beam trench where it seemed to represent a robbed wall (Plate 11); further investigation allowed the feature to be defined across the site oriented west-east disappearing beneath the eastern and western limit of intervention. Excavation defined a narrow near-straight-sided feature containing C1098, a deposit of limestone chippings, CBM fragments and lime mortar which filled the feature consistently along its length interpreted as an aid to drainage. Among the building debris deposited into F24 was a fragment of ridgetile, floor tile and brick with adhering painted wall plaster (Appendix H). Further evidence of precinct



Plate 11 Portion of drain F24 pre-excitation (scale 0.5m)

surface sealed F24 at its eastern end consisting of a red sand preparation C1119 sealed by crushed limestone C1118 which had been truncated by Period 3b trenches but appeared to extend across the excavation area adjacent to F24. A further deposit, C1153, sealed F24 and contained a rich variety of rubbish notably copper-alloy items including 16 small pins, a fastener and twisted wire, a near-complete window quarry and a highly decorative fragment of window glass as well as a rich deposit of animal and fish bone and oyster shell. The decorated window glass was painted with a lancet and trefoil decorated buttress, probably part of an architectural scheme of a canopy over a figure of a saint and undoubtedly originated in the friary church and is dateable to the early 14th century (Appendix I). The deposit was fine-mesh sieved to recover fish bone which included cod, mackerel, herring and eel, the marine component of which may have been brought to site in a preserved state (Appendix J). An adjacent Period 3a pit, F55, was found to contain a similar array of material including a fragment of pipeclay object, possibly part of a figurine, further fragments of high-quality painted window glass and two fragments of floor tile. Notably, F55 produced a fragment of residual bone comb side-plate which may represent an artefact of Anglian origin. A small pit, F56, lay close-by, but was unremarkable.

Located between precinct wall F36 and drain F24 a pit-like feature was identified and has been interpreted as a possible well, F69. F69 appeared, like many Period 3a pits, to have been used to dispose of quantities of plain roof tile and lime mortar but its depth and form were not entirely consistent with those of a pit. F69 was first glimpsed during excavation of the ring beam and later fully exposed during the main floor reduction and central pile trench. Given the distinctive nature of its backfill, F69 was very clearly defined during excavation as a sub-square pit measuring 1.6m x 1.6m and was excavated for *c.*0.70m to the required excavation level, revealing near-vertical sides and giving no sign of bottoming out (see Plate 7). The feature contained a single backfill, C1168, which produced *c.*30 litres of fragmentary York plain tile and a single sherd of Humber ware jug both suggesting only a broad mid-13th- to 16th-century date.

Period 3a pits

Distributed around the excavation area was a series of Period 3a pits, which appeared more concentrated to the north of drain F24 (see Figure 7).

Features to the north of F28 included rubbish pit F8 which was first defined partially during excavation of Test pit 4 and was probably encountered during excavation of YAT Trench 3 where it may have been assigned C3013, its eastern edge had also been truncated by Period 3b trench F2=F40. The remainder of F8 was subsequently excavated fully where it was defined as a circular pit measuring 1.7m in diameter and up to 0.3m deep. The pit had been filled initially with a sticky brown clayey silt C1169 which produced 12 floor tiles including inlaid and various monochrome glazed examples of 14th- to 15th-century date. C1169 also yielded a French jetton of mid-15th-century date which was lightly worn and considered a likely contemporary loss providing a reliable date for the backfilling of the pit. C1169 was sealed by a final backfill C1040 which contained Yorkshire Gritty ware, Humber ware, Brandsby- type ware and Hambleton-type ware indicative of 14th-century or later date.

Close to F8 a similar pit had been excavated and filled with demolition debris, F4 (Plate 12). F4 was first encountered within Test pit 3 where its western edge had been truncated horizontally by Period 3b trench F3=F33. Further investigation of the feature was undertaken during floor reduction where its eastern edge proved to have been entirely truncated by Period 3b trench F7. What remained of F4 consisted of a half-section of a pit measuring 1.4m across. The feature backfill (C1021), over 0.4m deep, was excavated to the required depth and clearly continued in depth. Material recovered from F4 included York plain tile providing only a broad 13th- to 16th-century date.



Plate 12 Tile-filled Period 3a pit F4 (scale 1.0m)

Pits beyond drain F24 to the south were identified as F58 and F63 and some evidence for a drop in levels was detected as the southernmost features did not require full excavation lying close to the necessary excavation depth. Pit F58 was excavated to the required depth and continued below it, producing a fragment of floor tile and Humber ware pottery, while nearby pit F63 was partly excavated (max.0.1m) producing only undiagnostic CBM.

3.3.2 Period 3b (mid-15th to mid-16th century)

Features assigned to Period 3b form two principal groups, north and south, and are characterised by parallel linear trenches or ditches filled with demolition material (Figure 8). Both groups cut into Period 3a pits, although the group to the south appear to predate that to the north slightly being separated by the deposition or accumulation of a soil layer (C1088). Interpretation of these features as aids to land drainage is proposed with the features being filled immediately with voided rubble does not, however, preclude the north and south group functioning contemporaneously since presumably their drainage function continued below-ground. Dating

material from these features was comparatively sparse as they were filled primarily with demolition material. Where present, ceramic tended to be Humber-type ware and therefore only very broadly dateable; the latest ceramic recovered from the group was identified as a late Humber type and imported Raeren stoneware of the late 15th- to mid-16th century and therefore over the cusp of the Reformation.

Northern group

Again the presence of west-east drain F24 appeared to form a demarcation within the precinct with F3=F33, F7 and F2=F40 lying entirely to its north. Associated pits F16 and F28 also lay within this zone. The area was dominated by the presence of these three large parallel trench features all measuring in the order of 6-7m in length and the deepest F7 measuring 0.7m deep. The westernmost, F3=F33, was first contacted within Test pit 3 and was subsequently revealed further during excavation of the ring beam and floor reduction where it could be seen to disappear beyond the western limit of intervention. Excavation proved the feature to measure 6.4m long with evidence for north and south butt ends lying partially within the excavated area and being a minimum of 1.5m wide. The trench was filled with a singular voided deposit of large limestone rubble blocks (C1020) including some diagnostic fragments (Appendix K). A single sherd of a Cowick-type Humberware jug of 14th- to mid-16th-century date was recovered from C1020.

Adjacent trench F7 lay wholly within the area of intervention and had been transected at its southern end by YAT Trench 3, possibly equivalent to C3014. The feature was subsequently more fully defined as a trench measuring 7.0m long x 1.3m wide x 0.7m deep oriented NNE-SSW. The trench was filled with C1038 a deposit of voided limestone rubble, including discarded architectural fragments, and lime mortar crumbs (Plate 13). A single sherd of Humberware of late 13th- to 15th-century date was recovered from the feature. Set 1.0m to the east of F7 a further similar feature was identified and had been sampled by YAT Trench 3. Within the current excavation the feature was encountered initially within Test pit 2 where it was assigned F2 and then during excavation of a strip trench where it was allocated F40. The feature was eventually fully defined and excavated where it proved to be a large trench measuring 5.7m long x up to 1.3m wide x up to 0.7m deep. F2=F40 was filled with a singular deposit of demolition material (C1012=C1129) including finely dressed and painted architectural limestone, a wide range of high-quality CBM including glazed and decorated floor tiles, glazed crested ridge tile and many fragments of bonded brick with adhering bichrome painted wall plaster. Several sherds of Purple-glazed, late Humberware type pottery was recovered from the feature, a type of mid-15th- to mid-16th-century date being most common during the first half of the 16th century. Two discrete pits were identified in the vicinity of F2=F40 and were assigned F16 and F28.



Plate 13 Demolition trench F7 south-facing section (scale 0.5m)

F16 was first encountered within an extension to Test pit 2 where it was defined as a steep-sided, circular pit encountered at *c.*8.10m AOD and exceeding the required depth. The pit had been backfilled once with C1077 a deposit of clayey silt with lenses of lime mortar and frequent fragmentary plain roof tile and some brick.

Ceramic recovered included two Humberware jug sherds and residual Torksey-type ware. F28 was set 3.0m to the south of F16 and was similar in form, defined as a circular, steep-sided pit exceeding the required excavation depth. A single backfill was identified and assigned C1111 characterised by a clayey silt with frequent limestone rubble and lime mortar. No dateable material was recovered from C1111, but its stratigraphy allows it to be assigned to the Period 3b group.

Southern group

A further group of features was defined within the southern end of intervention and their characteristics suggest they belong to a similar phase of activity. The group consists principally of seven ditch or trench features containing demolition material (F13, F22, F23, F31=F59, F32=F45, F46 and F62) along with a discrete rubbish pit (F71).

F13 was first encountered within Test pit 6 and subsequently fully investigated within a link trench. The feature emerged from the western limit of intervention and extended into the area by 2.3m oriented west-east. The feature contained a single deposit of CBM rubble including fragmentary roof tile, bonded brick with adhering bichrome painted wall plaster and lumps of hard lime mortar. No material diagnostic of date was recovered. Immediately to the south of F13, and also oriented west-east, was a very similar feature assigned F46 which emerged from the western limit of intervention and measured 3.1m. The feature contained a single backfill of limestone and CBM rubble including fragments of bonded brick with painted plaster and fragmentary roof tile (C1138). A sherd of imported Raeren stoneware was recovered from C1138 providing a date of the late 15th- to mid-16th century.

To the immediate south of F46 lay a pair of intercutting ditch or trench features F62 and F32=F45. The earlier of the two (F32=F45) consisted of a meandering narrow ditch or trench emerging from the western limit of intervention and continuing for a distance of *c.*6.0m before being truncated by Period 5 brick cistern F12. Material recovered from the single backfill of limestone and CBM rubble C1115=C1137 consisted of a sherd of Humber ware drinking jug. F62 emerged from the western limit of intervention where it could be traced for a distance of *c.*3.8m and cut F32=F45. The feature had been backfilled once with C1161 which consisted of limestone and CBM rubble; no material diagnostic of date was recovered.

F32 was flanked closely on its southern edge by F31=F59 which spanned the area of intervention from the southwest corner to where it was truncated by brick cistern F12. The feature consisted of a narrow, steep-sided cut filled with C1114=C1157, a deposit of limestone rubble. Material recovered from F31=F59 was restricted to a French jetton of *c.*1350-1375, which was unworn and may have been disturbed from earlier strata.

To the south of F31=F59 lay two features which appeared to represent more extensive linear features but which disappeared beyond the southern or eastern limits of intervention, F22 and F23. These trench or ditch features truncated Period 3a pit F58 and consisted of two linear cuts, oriented broadly west-east, filled once with rubble-rich deposits (C1089 and C1090).

F71 was the northernmost feature within the southern group and consisted of a short slot or trench filled with clayey silt (C1171). Material recovered from the feature included two sherds of Cistercian ware cups of the late

15th to 16th century, two copper-alloy lace chapes, two small copper-alloy pins and two sherds of window glass. Fish bone and oyster shell were noted during excavation and the deposit was fine-mesh sieved.

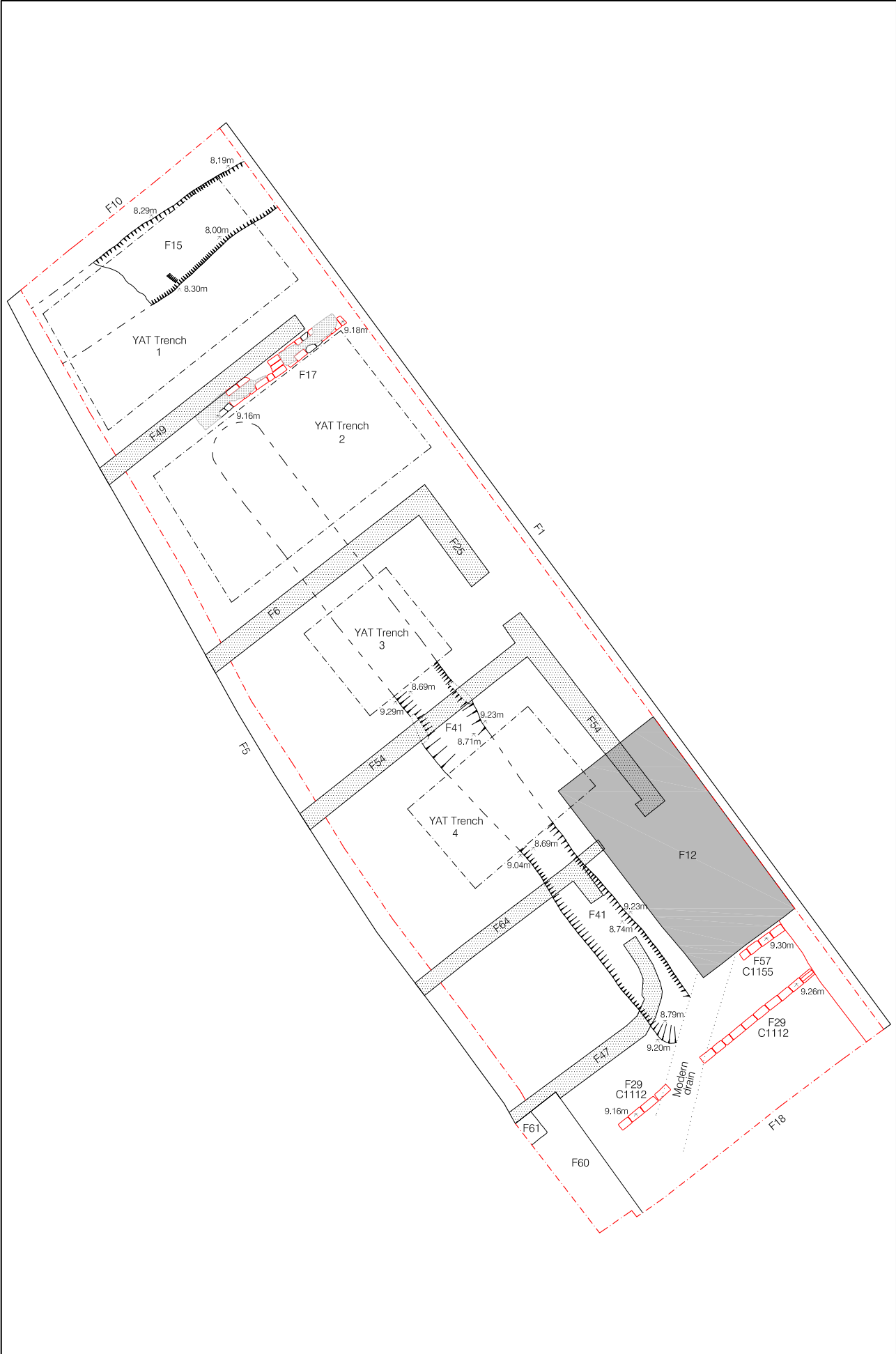
3.4 PERIOD 4 - POST-DISSOLUTION TO MODERN (mid-16th to 20th century)

Activity post-dating the system of land drainage represented by Period 3b trenches has been assigned a single period spanning the post-Dissolution to modern periods. Period 4 activity was comparatively ill-defined and may have been intermittent. There is some evidence for the consolidation of ground levels in the form of land drains and patchy surfaces which appears to have limited opportunities for deposition of contemporary material. The period began with the accumulation of soil layers over Period 3b trenches (C1010, C1011, C1013, C1025, C1036, C1037, C1065, C1082 and C1099) and the robbing of wall F36. The latest ceramic from these early Period 4 soil layers was identified as Cistercian ware and Raeren stoneware indicating a date of the late 15th to 16th century. C1065 produced a clay pipe bowl dateable to *c.*1650-1680 (Appendix L).

A series of ceramic drains most running west-east were identified and were assigned F29=F58, F44 and F57. The features consisted of answering ceramic half-drain fragments set opposing face up and face down. F57 and F29=F58 were cut by the construction of the 23 Clifford Street basement and the drain segments were observed reused within the footings of the building itself. Possibly associated with these land drain features was a small ditch oriented north-south encountered within YAT Trench 2, 3 and 4, where it was assigned 2008, 3003 and 4003 respectively. The feature was traced within the main excavation, where it was assigned F41, to the south of YAT Trench 4 where it appeared to butt-end in the vicinity of F29=F58, but also at the point where both features had been truncated by later salt-glazed drain F30. F41 was also defined between YAT Trench 3 and 4 but was not detected between Trench 2 and 3. It seems possible that the feature also respected a wall footing at its northern end which was assigned F17. F17 consisted of a foundation of brick bonded with lime mortar on a preparatory layer of cobbles and limestone rubble fragments. The feature was investigated in small sections but could be seen to span the area of intervention west-east and was cut by east lateral wall of 23 Clifford Street. The feature may represent a boundary wall and as a group the features indicate some form of land management likely associated with horticulture.

23 Clifford Street

Various features encountered during excavation can confidently be assigned to 23 Clifford Street and consisted primarily of foundations for the external basement walls, for internal dividing walls and service infrastructure. The west and east lateral walls were assigned F5 and F1 respectively and both were of stepped brick construction and effectively set the limits of excavation (Figure 9). The main north and south wall of the building were assigned F10 (north) and F18 (south). Internal walls which were present in the early stages of excavation and progressively demolished were assigned F6, F25, F47, F49, F54, F60 and F64. Various services were identified and apparently integral to the original building and were identified as salt-glazed drain F14, brick cistern F12 set with salt-glazed drain F30, salt-glazed drain F19 and two lead pipe water services F20 and F21 and salt-glazed drain F61. Cistern F12 was a large brick vaulted below-ground water cistern measuring 4.5m x 2.3m x 1.0m deep (Plate 14) which had removed Period 3b and truncated Period 3a activity within its footprint. These features represent the latest phase of activity encountered.



Plan of Period 4 features

Scale 1:100



Figure 9



4.0 DISCUSSION

The results of the mitigation excavation are a little difficult to assess due to the arbitrary level of excavation which cut across a horizon of early medieval soils and subsequent features and also in some cases due to the problems of diagnostic dating material. Nonetheless, a form of period-by-period narrative can be tentatively constructed towards an enhanced deposit model for the Clifford Street zone also using the results of nearby interventions.



Plate 14 Large brick cistern F12 (scale 1.0m)

4.1 RESIDUAL ROMAN MATERIAL

The presence of residual Roman ceramic and a fragment of jet finger ring which may be Roman in date join residual ceramic and glass including a gold-in-glass bead recovered during the YAT evaluation. While no *in situ* Roman strata were encountered during either intervention the presence of residual Roman material suggests some level of occupation. The broad area of Clifford Street has produced evidence for cemeteries and structures with mosaic floors and architectural stone in the area of St Mary's Castlegate, so the recovery of Roman material is unsurprising in this context.

4.2 RESIDUAL ANGLIAN MATERIAL

Residual Anglian objects were identified as a decorated bone thread picker, a fragment of decorated side-plate from a composite double-sided bone comb (Plate 15) and 14 sherds representing 13 vessels of 8th to mid-9th-century date. Ware types included sherds of Ipswich ware, Northern Maxey-type ware, Early Fine-shelled ware, Handmade ware Type 1 and a single possible French import represented by a vessel with red paint trail possibly from a jar or pitcher. Period 2 layer C1076 contained six sherds of the Middle Saxon assemblage including three of Ipswich-type ware, two from the same



Plate 15 Bone thread picker and comb side plate

jar. The comparatively strong presence of ceramic of late 8th- to 9th-century date in a single layer suggests that strata or features of Anglian date had been present at the site and disturbed fairly directly. The overall content and origin of the assemblage is consistent with those recovered during excavations at Fishergate (Mainman 1993; Rogers 1993) and Blue Bridge Lane (Ashby and Spall 2005; Vince and Young 2005) and is reflected in some of the antiquarian finds from the vicinity (Waterman 1959; Tweddle, Moulden and Logan 1999).

While the assemblage is small it remains a noteworthy group; the previous evaluation did not encounter any material of Anglian date and reported 'a complete absence of...Anglian activity at the site' based on the ceramic

profile. It is clear that intervention on a much larger scale in the Clifford Street zone is required before an absence or otherwise can be reported with any confidence. Residual Anglian material remains important for its contribution to understanding the distribution of Middle Saxon occupation zones in the city and joins notable residual assemblages such as those from 16-22 Coppergate and from the construction of Clifford Street. The preservation of Middle Saxon occupation at Fishergate may be owed to comparatively lower levels of medieval and later activity in the suburb; residual Anglian assemblages from closer to the historic core of York are highly likely to have originated in contemporary deposits, but often come down to us residually due to these differences in taphonomy. The small but notable assemblage of residual Anglian material from 23 Clifford Street should be incorporated in future reappraisal and study of material of this date from the Coppergate-High Ousegate-Fishergate zone.

4.3 LATE ANGLO-SCANDINAVIAN ACTIVITY

Late Anglo-Scandinavian activity was manifest at the site in the form of soil spreads, possibly levelled middens, encountered at the limit of the required excavation depth. The soils contained a quantity of late Anglo-Scandinavian material, primarily pottery, with 65 sherds representing 58 vessels, including York ware and Torksey-type ware together indicating activity of mid-9th to 11th-century date. The layers which produced this pottery also yielded an assemblage of animal bone indicative of food refuse. A small assemblage of antler off-cuts distributed throughout the sequence could be residual Anglian material, but are most probably of late Anglo-Scandinavian origin particularly given the pedigree of antler-working at Coppergate and indeed Clifford Street itself. An amber bead, which appears to have broken during lathe-polishing, is almost certainly of Anglo-Scandinavian origin, again with an important comparative assemblage deriving from Clifford Street (Panter 2000, 2504)(Plate 16). A fragmentary copper-alloy ingot can also be added tentatively to the group of residual craft-working debris.



Plate 16 Fragmentary amber bead

The presence of apparently intact Anglo-Scandinavian strata or features was not clearly encountered during the YAT evaluation with only the bases of possibly truncated Anglo-Scandinavian pits, interpreted as truncated by Norman landscaping, identified cut directly into subsoil. Evidence from the excavation however indicates that the massive earth-moving operation necessitated by the Norman castle did not extend as far as 23 Clifford Street providing a useful indication of a buffer for the modelling of this wide-scale episode of truncation. The remains encountered within the excavation were concentrated at the north end of the building and therefore in the area beneath YAT Trench 1 and 2 which only sampled the upper 500mm of the sequence.

4.4 POST-CONQUEST ACTIVITY

Some post-Conquest activity was indicated by ceramic and scattered features. The small group of features included hearths, a possible ditch, a possible cistern, a cobbled surface and pits. The range of features is

sufficient to suggest occupation of the area supported by the animal bone profile. The features and soils were dated by Gritty, Splashed and Torksey-type ware, generally indicative of an 11th- to early 13th-century date.

This evidence joins the post-in-trench structure and inhumation encountered within YAT Trench 4. While ceramic dating for these features was scarce this structure and burial were provisionally dated to the post-Conquest period and given the wider results of excavation it does now seem that the burial predated friary activity and takes on a new significance. The burial was identified as extended and supine with the head aligned apparently to the SW, perhaps with a nearby structure conditioning the alignment. The burial may be an aberrant stray burial away from an organised cemetery, although the possibility remains that an early post-Conquest or earlier burial ground lies nearby.

4.5 MONASTIC ACTIVITY

Activity related to the Franciscan friary falls into two broad groups. The first can be confidently assigned to the friary and takes the form of a large stone wall, drain, well and rubbish pits. These features produced assemblages of food and domestic waste which characterise a rich lifestyle enjoyed by the friars in the form of varied birds, fish, meat and shellfish, some few personal belongings and beautifully decorated window glass. The second group are those ditch- or trench-like features which laced across the site and contained the remains of demolished brick and masonry buildings. Dating of these features remains imprecise and they could have originated during the life of the friary during a period of rebuilding, or they could relate to activity in the 20 or so years following the suppression, during which time we know from historical sources that the friars' garth or precinct had been given over to orchards. The point is almost academic since the archaeological value of the features lay in their contents and they clearly contained remains of late medieval, high status friary buildings whichever side of the Reformation they were deposited.

The main buildings of the church and claustral range were not clearly identified within the intervention with the exception of wall F36 which may have been part of a building but was not clearly so. References to the friary in wills imply that the gatehouse and friary church were closer to the Castlegate frontage and this should remain the model to be tested archaeologically. Glimpses of the friary buildings were gained nonetheless and some of the grandeur implied by the residence of kings Edward I, II and III was borne out by the evidence. The architectural stone, fine Magnesian limestone, limewashed and sometimes also painted was recovered and joined an assemblage of fine CBM including a variety of floor tiles, some implying plain mosaic floors, glazed and decorated roof furniture and brightly coloured painted plaster walls within the friary. The window glass from the church clearly included painted scenes of saints in architectural schemes and a small portion of pipeclay figurine may derive from a statuette from the church.

4.6 POST-REFORMATION ONWARDS

Following the suppression of the friary, the site and precinct seems to have been divided into smaller areas of private land which the historic maps depict as small gardens or orchards divided by the water lanes leading to the Ouse. This was supported by the strata overlying the latest monastic features and was manifest as accumulating garden soils and features often containing clay pipe and early modern ceramic. This land-use

seems to have persisted until the creation of Clifford Street in the 1880s, which was followed quickly by the construction of buildings along its route.

5.0 ASSESSMENT

The recorded data for levels of occupation provide a useful contribution to the city deposit model, although frustratingly subsoil was not clearly encountered during excavation. Levels recorded in YAT Trench 3 and 4 suggests that at this end of the site within the excavation area a further *c.*300mm remained to be excavated. There is some indication of sloping trend towards Tower Street reflected in modern topography in spite of the late 19th-century redevelopment in the zone. This in turn suggests that strata to the north end of the area of excavation were deeper overlying subsoil which is supported by data recorded in previous YAT interventions such as at 5 to 13 Clifford Street.

5.1 DEPOSIT MODEL

The following horizons were encountered during excavation and contribute to the deposit model within this part of the city:

Late Anglo-Scandinavian:	7.8-8.1mAOD
Norman to medieval:	8.1-8.4mAOD
Medieval:	8.4-8.9mAOD
Post-medieval to early modern:	8.9-9.3mAOD

A small Roman and Anglian presence may also be noted. The topography of Clifford Street itself is deceptive since the road was apparently constructed on a bank of imported material significantly raising the height of ground level at the southern end. To either side of the road buildings are often cellared, and in the case of Number 23 the cellar was created unusually by the height of the new road and not apparently facilitated by the customary truncation of ground. This is critical to the deposit model for this end of the street and intact early modern deposits were encountered predating the cellar of 23 Clifford Street sequentially.

A broader topographic model can be sketched out using the archive reports of previous interventions undertaken by YAT, although consistent references to the AOD level of cultural horizons are not always included in the reports. At 2 Clifford Street (Ward's Florists) Anglo-Scandinavian occupation overlay preceding layers of possible Roman date at *c.*11mAOD. At 5-13 Clifford Street the topography detected seemed to fill a westwards slope down towards the Ouse with Anglo-Scandinavian activity probably appearing at *c.*9.5m AOD. Given the strength of the Anglo-Scandinavian presence in the assemblage from the Friends' Meeting House occupation of 9th- to 11th-century date was clearly represented although no data were recorded. At 23 Clifford Street, late Anglo-Scandinavian occupation was encountered at 7.8m and appeared to continue below this level at the northern end of the sample. These spot heights represent a sloping trend from High Ousegate down towards the confluence of the Foss and Ouse which is still reflected in the modern topography.

What appears to be critical about the Clifford Street zone is its potential for producing activity of Anglian date and the zone should be considered a high priority for archaeological modelling opportunities and high quality research focussed mitigation excavation in the future. The presence of possible 7th-century architectural stone column fragments found at St Mary's Castlegate, the cluster of 7th- to 9th-century metalwork and coins around Clifford's Tower and the possible Anglian cross-shaft found at 16-22 Coppergate, perhaps originating from St Mary's all point to a likely node of occupation in the polyfocal Middle Saxon occupation of the city. Interventions along Clifford Street, while providing useful modelling opportunities, have been restricted in area or depth and the basal sequence rarely sampled.

6.0 ARCHIVE

Paper and electronic copies of this report will be sent to John Oxley, Principal Archaeologist, City of York Council. The report will also be made available *via* OASIS (OASIS reference number: fieldarc1-109938). A note on the results of the excavation will be prepared and submitted to *Medieval Archaeology* and *Post-medieval Archaeology*.

An assemblage of 25 sherds of Roman ceramic has been the subject of specialist assessment by Ian Rowlandson and Gwladys Monteil. An assemblage of 372 sherds of post-Roman ceramic has been the subject of specialist assessment and full reporting by Jane Young. Twenty-eight fragments of clay tobacco pipe have been assessed by Jenny Mann. An assemblage post-Roman CBM was submitted for recording and selective disposal by Cecily Spall; most undiagnostic tile or commonly recovered examples were recorded on site and discarded. Assemblages of mammal, fish bone and shell was submitted for recording and full analysis. An assemblage of ferrous and non-ferrous, stone, clay and bone objects was submitted for x-ray, conservation assessment and identification. The objects were x-rayed prior to cleaning and consolidation by Karen Barker, Antiquities Conservation; the conservation records and x-ray plate form part of the site archive. Three coins were referred to Craig Barclay for identification following cleaning and consolidation. A small assemblage of medieval window glass has been the subject of conservation and have been reported on by Hugh Willmott.

The material, paper and photographic archive along with a copy of the report will be deposited with the Yorkshire Museum.

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APPENDIX A PROJECT DESIGN

1.0 INTRODUCTION

This Project Design describes an ongoing archaeological excavation at 23 Clifford Street, York. The development of the property involves the conversion of the building into a 5-storey structure, including basement level. This requires a programme of archaeological mitigation consisting of excavation to lower the current ground level of the basement and for a new foundation system. The foundation system will consist of a ring-beam foundation around the inner circuit of the external walls of the building followed by three alignments of pile cap foundations.

This Updated Project Design has been prepared by Field Archaeology Specialists Ltd in consultation with the City of York Council on behalf of Derwent Vale Developments Ltd.

1.1 LOCATION AND LAND USE

Number 23 Clifford Street (Figure 1; NGR SE 6038 5153) is situated on the east side of Clifford Street, opposite York Magistrate's Court and York Fire Station, and is bound to the south and north by office buildings, the latter fronting onto Tower Street, and to the east by the rear of the Regimental Museum. Number 23 Clifford Street was constructed in the late 19th century and consists currently of a two-storey building including basement.

1.2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Archaeological evidence from the immediate vicinity of 23 Clifford Street has demonstrated activity in this area from the prehistory to the modern day. To the southwest, a crouched burial in a stone cist was encountered during underpinning of Clifford's Tower in 1902, predating subsequent Roman activity at the site. There is some circumstantial evidence to suggest that one of the main Roman roads into York crossed the area, and Roman burials have been encountered archaeologically at the northern edge of the castle bailey since 1824, the most recent discoveries being burials encountered during the installation of a drain in 1956. A range of funerary evidence has been encountered, including stone coffins, with inscriptions referring to centurions, lead coffins and wooden coffins (Ramm 1956-8, 400*ff*; RCHME 1962, 69). Some limited evidence for Roman settlement in the area has also been encountered; in 1871, a mosaic pavement was discovered adjacent to St Mary, Castlegate, apparently under the 'buttress on the left side of the entrance door'. In addition, a column base was located in front of Castlegate house in 1883 (RCHME 1962, 59). Slightly further to the north, a number of structures were discovered during the excavations of 16-22 Coppergate, immediately north of the castle, consisting of timber structures dated to the late 1st to 2nd century and later stone buildings (Ottaway 1993, 67). These findings demonstrate that there was some settlement in the Roman period in this area.

Before the Norman Conquest, settlement had spread southeast from the Roman fortress to cover part of the Roman cemetery. Finds for pre-Conquest occupation from the area of York Castle and Clifford Street (less than 50m to the north of 23 Clifford Street) include late Saxon loom-weights, a bronze hanging bowl, a bone trial piece incised with triquetral and interlace ornament, and various bronze or copper vessels. The greatest concentration of evidence for pre-Conquest activity has come from the Coppergate excavations, to the north of the Clifford Street site. This revealed evidence for intensive occupation established between the late 9th century and c.930-5, with a series of long narrow tenements bounded by Coppergate and the river Foss. The buildings, with their gables facing onto the street, were of post-and-wattle construction, with backyards defined by wattle fence alignments running down to the Foss (Richards 1991, 48). The buildings were replaced by a series of sunken plank-built buildings c.975. The final addition to the site was made early in the 11th century, when a large building interpreted as a boat shed or warehouse was erected towards the river (Richards 1991, 48). Further evidence for pre-Conquest occupation of the area comes in the form of the church of St Mary, Castlegate. This is located slightly further

south than the Coppergate excavation and closer to the line of the outer bailey ditch. It has been suggested that the church is a pre-Conquest minster in origin, which would have served the inhabitants of the castle during the medieval period (RCHME 1973, 60). Potentially associated with an ecclesiastical establishment were a number of burials encountered during an archaeological evaluation by York Archaeological Trust, at the northeast end of the former Female Prison building. The graves were laid out in an orderly manner on a similar alignment, and whilst only two inhumations were excavated, many more are reported to have been visible in the sides and base of the trench. The graves were accompanied by well stratified ceramic evidence (YAT 1998). It was concluded that the site continued in use as a cemetery into the early medieval period, potentially associated with the closest surviving early church of St Mary's, some 200m distant.

By 1068, the castle itself had been established, at which time it was almost certainly of timber. The site of 23 Clifford Street would have been situated immediately north of, if not within, the bailey of the Norman Castle. Additions and repairs to the castle are recorded throughout the 12th and first half of the 13th century, but in the 1240s an ambitious programme of rebuilding the castle in stone was started by Henry III - a project largely completed by the end of Henry's reign. Part of these works included the construction of a large quadrilobe tower of unique design on the motte, the building now known as Clifford's Tower.

The castle has often been portrayed as a site in terminal decline in the later Middle Ages, although building accounts from the 14th century and from Henry VIII's reign suggest continued repair and reconstruction. In addition, the castle continued to be used as a gaol, mint, treasury and centre of administration throughout most of the medieval period. Most of the medieval and post-medieval buildings of the bailey and much of the defences were swept away with the building of new prison and court buildings in the 18th century. However, the medieval north gate survived until the construction of the County gaol, which was completed by 1835.

In 1243, a Franciscan friary was established at the site of Clifford Street, adjacent to the castle bailey. The friary is likely to have incorporated ample accommodation and fine buildings; when in York, Kings Edward I, II and III took up residence at the friary. The main entrance to the friary in Castlegate, opposite St Mary's Church; the gateway is documented in 1314 (Raine 1955, 204). Little structural evidence has survived relating to the priory, although part of the walls, constructed in the 13th-century, survived into the 20th (Raine 1955, 203-4). The church is known to have been situated near to the main entrance in Castlegate, documented in wills until the early 16th-century (Raine 1955, 205).

An evaluation of the site at 23 Clifford Street revealed evidence of medieval to post-medieval date, including a post-in-trench structure and a single inhumation burial. Robber trenches, presumed to be associated with friary structures were located, and architectural stone deriving from these buildings was observed (YAT 1990).

The friary was dissolved in November 1538, and the archaeology suggests that, following the robbing of the buildings, this land was used for horticultural purposes. A large house, fronting on Tower Street, is depicted on the OS map of 1852, prior to the construction of the existing building in the late 19th century. A photograph showing the magistrates courts under construction in 1890 also shows the northeastern corner of the property as open ground, retained by a high wall.

1.3 AIMS AND OBJECTIVES

The purpose of the mitigation programme will be to excavate all archaeological deposits impacted by the insertion of the ring-beam foundation and floor reduction and to mitigate the effects on the archaeology of the insertion of the central alignment of pile foundations and raft.

2.0 FIELDWORK PROCEDURE

2.1 EXCAVATION STRATEGY

Phase 1

The proposed excavation strategy comprises three principal phases of excavation (Figure 2). The first phase requires the excavation of a rectilinear trench to receive the ring-beam foundation and two alignments of pile cap positions. This trench will measure 1.0m in width x 1.2m below current basement level and will be excavated around the internal perimeter of the building; the pile cap positions will be contained within the 1.2m trench depth. For safety reasons a safe working method was specified by the project structural engineer. This requires intermittent lengths of the ring-beam foundation trench to be excavated, followed by the partial construction of the concrete collar in the open lengths of trench.

To date, approximately 50% of Phase 1 pits have been excavated incorporating some modification to the on-site methodology as required by the project structural engineer. This modification involved the excavation of the first suite of pits to be linked in four positions by trenches spanning the width of the building (see Figure 2). This modification allowed internal walls to be removed enabling the completion of the ring beam excavation.

The completion of Phase 1 excavation will consist of linking pits being undertaken in four stages as specified by the project structural engineer (see Figure 2). Construction of the concrete ring beam will be undertaken in the same stages and must be completed before excavation of pits belonging to the next phase can be started.

Phase 2 and 3

The second and third phases will now be undertaken concurrently. Phase 2 will consist of the reduction of internal basement level to 1.2m below current basement level; this reduction in floor levels will be undertaken archaeologically. Phase 3 required the excavation of a trench positioned along an alignment of proposed pile cap foundations which runs centrally through the building's footprint. This trench will measure 1.0m wide x 1.6m deep below the current basement level. The trench is designed to mitigate the effects of the central piles on burials which are thought to lie within the development area. During the 1990 evaluation by the York Archaeological Trust an inhumation burial was encountered at *c.*7.70m AOD. Current basement level lies at approximately 9.00m-9.10m AOD and the proposed depth of the trench (to *c.*7.10mAOD) should expose any burials present.

2.2 EXCAVATION PROCEDURE

The concrete basement floor will be removed by the groundworks contractor prior to the commencement of each phase as appropriate. Once removed all excavation will be undertaken by hand in a controlled and stratigraphic manner. Spoil will be stored on site and removed intermittently by the groundworks contractor.

If human burials are encountered, the remains will be recorded and lifted where necessary. The provisions of Section 25 of the Burial Act (1857) will be complied with.

2.3 RECORDING PROCEDURE

An existing site grid based on the Ordnance Survey National Grid and Ordnance Survey Datum will be used. Survey stations will be set out around the building area using a total station theodolite to facilitate archaeological recording.

A full written, drawn and photographic record will be made of all material recovered during the course of the excavation. Archaeological deposits, features and structures will be recorded using a standard system of context and other record forms.

A series of indexes, capable of interrogation, will be maintained for all site records. The planning of features will be at scales of 1:10, 1:20 or 1:50; sections will be recorded at a scale of 1:10 or 1:50. The photographic record will consist of 35mm colour and monochrome photography. Monochrome photography will be undertaken using silver-based film to ensure archival stability.

2.4 ENVIRONMENTAL STRATEGY

The principal aim of the Environmental Strategy will be to define the value, range, quality and potential of any archaeological environmental evidence present at the site. It is anticipated that the proposed investigation will encounter dry archaeological deposits containing poor assemblages of biological material. The investigation will seek to characterise the nature of deposits and environmental assemblages, from different periods and context types, with an emphasis on establishing the environmental setting of settlement and industrial activity, understanding food preparation, rubbish disposal strategies, and the identification of social status. The Environmental Strategy will be implemented in accordance with *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation* (English Heritage, Centre for Archaeology Guidelines 2002).

A systematic environmental sampling method will be employed. Deposits which are clearly of a mixed/secondary origin such as make-up layers or deposits which display a high degree of residual/intrusive artefactual material will not be the subject of environmental sampling unless a specific question relating to function or social status can be addressed. Where deposits are thought to be of primary origin and have potential to contain biological remains, the following sampling regime will be undertaken:

Coarse sieving samples will be collected from deposits which appear to contain primary and useful vertebrate and mollusc assemblages, and sieved using 10mm mesh to enhance recovery and produce a meaningful assemblage. An appropriate sample will be set, ranging from 10-100% of the excavated deposit.

Flotation samples will be collected from deposits which appear to contain small vertebrate and mollusc assemblages, charred plant remains, organic plant remains, cess and insect remains. Samples of 40 litres will be collected and processed using a water-recycling tank with rapid water-flow washover. A 1mm mesh will be used to recover the dense residue and a 300 micron mesh will be used to recover light fractions. 10 litres (*GBA*) will be retained for sub-sampling for paraffination for the recovery of insects remains, and other specialist analyses (eg parasites, pollen etc), where deemed appropriate.

Block samples (spitted soil columns, monoliths or kubienas) will be collected from undisturbed sequences which appear to have the potential for a dateable environmental sequence or for information about deposit origin and grain structure and condition. These samples will be recovered by the project's Soil Science Consultant.

The project's Environmental Consultants will be afforded the opportunity to visit the site during the fieldwork in order to assess the effectiveness of the Environmental Strategy.

2.5 FINDS RECOVERY

All finds identified during excavation will be hand-collected and processed. Residues recovered as part of the Environmental Strategy will be routinely sorted for cultural material and scanned with a magnet for small ferrous objects and hammerscale. Where deemed appropriate by the Project Manager, coarse sieving (10mm mesh) or bulk samples (1mm mesh) will be collected specifically for the recovery of small dateable finds, as well as industrial residues which will be recovered in accordance with *Archaeometallurgy in Archaeological Projects* (English Heritage 2001). Where appropriate, samples will be collected for absolute dating.

3.0 ARCHIVE PREPARATION

After completion of the field investigation all records will be indexed, ordered, quantified and checked for consistency. Context, finds, sample and other paper-based records will be transferred to an integrated computer based system. The drawn record will be digitised in an appropriate format that will permit the output of standard ACAD type DXF files.

Finds treatment will be undertaken in accordance with guidelines set down in *First Aid for Finds* (Watkinson and Neal 1998). Archive preparation will be undertaken in accordance with *Guidelines for the preparation of excavation archives for long-term storage* (Walker 1990). In accordance with guidelines laid down in MAP2, all metalwork and a samples of metallurgical residues will be submitted for X-radiography prior to assessment.

The archival record will include all material relating to the sites and their excavation including correspondence, written, drawn and computerised records. The site archive will be curated to allow transfer to the Yorkshire Museum on completion of the project. As part of the preparation for the post-excavation programme, the artefactual, ecofactual and samples will be quantified and described. In addition, an illustrated site summary will be prepared.

The digital archive will be provided in a non-magnetic storage medium using generic file formats including PDF.

Preliminary conservation and stabilization of objects will be undertaken prior to an assessment of long-term conservation and storage needs.

4.0 POST-EXCAVATION AND REPORTING PROCEDURES

Upon completion of the fieldwork, all finds, samples and stratigraphic information will be assessed for their potential for further analysis. If appropriate, a Post-excavation Assessment Report will be prepared which will include the results of the background research, fieldwork procedure, the results of the excavation, the results of the specialist assessments, interpretation and phasing, illustrations (photographs, plans and sections) and assessment, conclusions and recommendations for any necessary further research and analysis. Should any further work be required, the results will be included in a Field Report which will also include a summary of the results of previous investigations in the area, and any necessary comparative research.

Paper and electronic copies of the report will be submitted to the commissioning body and the City of York Council.

5.0 PUBLICATION AND DISSEMINATION

A note will be prepared on the results of the recording work for publication in an appropriate local journal. If the results of the work merit it, a full paper will be prepared for publication in an appropriate journal.

An *Online Access to Index of Archaeological Investigations* (OASIS) form will be submitted for the project.

6.0 PROJECT SPECIALISTS

Allan Hall and Harry Kenward (Environmental Consultants)

Stephen Carter (Soil Science Consultant)

Anthony Mustchin (Zooarchaeology)

Alan Vince (Pottery)

Cecily Spall (Ceramic Building Material)

Karen Barker (Conservation)
Cecily Spall (Small Finds Research)
Fiona Tucker (Human Remains)

7.0 MONITORING ARRANGEMENTS

The work will be monitored by the City of York Council who will be notified prior to each phase of work. The archaeological scientific aspects of the project will also be monitored by the English Heritage Regional Advisor on Archaeological Sciences.

8.0 HEALTH & SAFETY

Field Archaeology Specialists consider the health and safety of their staff of paramount importance. All company staff will abide by the site rules, regulations and procedures defined by the main contractor. All necessary shoring and water management will be undertaken by the main contractor to ensure safe access for the archaeological team.

8.1 RISK ASSESSMENT

In order to comply with the Management of Health and Safety at Work Regulations 1992, an assessment of risks will be undertaken prior to any fieldwork being undertaken. All fieldwork will be carried out in accordance with the FAS Health & Safety Policy as well as specific requirements set out in the project's Risk Assessment.

8.2 INDUCTION AND PROCEDURES

Prior to the commencement of fieldwork, all members of the project team will be inducted by the main contractor and FAS Project Manager. This induction will include Health & Safety procedures including safe working practices, the use of PPE and First Aid and welfare facilities.

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APPENDIX B THE POST-ROMAN CERAMIC

Jane Young

1.0 INTRODUCTION

A group of three hundred and seventy-two Post-Roman pottery sherds recovered from the site, was examined. The pottery ranges in date from the Anglian to early modern periods and was recovered from fifty-three different deposits. A summary of the pottery by ceramic period is presented in Table 1.

Table 1 Pottery summarised by ceramic period with sherd count

Ceramic period	Total sherds	Total vessels
Middle Saxon and handmade wares	14	13
Anglo-Scandinavian	65	58
Saxo-Norman (11th to 12th)	116	100
Early medieval (mid 12th to early/mid 13th)	38	34
High medieval (13th to 14th)	36	31
Late medieval (late 13th to mid 16th)	45	32
Late medieval to early post-medieval (mid 15th to 16th)	17	16
Post-medieval (16th to 18th)	8	6
Late post-medieval (17th to 18th)	9	7
Early modern (18th to 20th)	24	15
Totals	372	312

2.0 METHODOLOGY

An assemblage of three hundred and seventy-two post-Roman sherds representing a maximum of three hundred and twelve vessels was recovered from the site. The pottery ranges in date from the Anglian to early modern periods and includes local fabrics, regional and continental imports. The pottery has been fully archived to the standards for acceptance to the Yorkshire Museum and is in accordance with the guidelines laid out in Slowikowski, *et al.* (2001). Visual fabric identification of the pre-early modern pottery was undertaken by x20 binocular microscope. Advice was sought from Ailsa Mainman and Anne Jenner at York Archaeological Trust, who kindly examined and confirmed identification of a number of vessels from the site and provided suggested sources for some of the more unusual types. The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. Every effort was made to identify cross-context joins, of which only one was found. The pottery data was entered on an access database using fabric codenames (see Table 1) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005). A full concordance with the ceramic names used by The York Archaeological Trust and in their publications is given in the archive.

3.0 CONDITION

The pottery is in a variable condition although most sherds are in a slightly abraded condition with sherd size mainly falling into the small to medium size range (1 to 50 grams). Less than 11% of the vessels (33 examples) are represented by more than one sherd and a single vessel has a cross-contextual join. A number of vessels have external soot residues showing that they have been used over an open fire, several of which appear to have broken during use as the soot is found to continue over the broken edges. Some vessels also have internal soot or carbonised deposits suggesting that the contents of the vessel

have burnt. Other indications of usage include wear marks and white internal ‘kettle fur’ deposits caused by the heating of water or containment of urine.

4.0 THE RANGE AND VARIETY OF MATERIALS

A range of fifty-nine different, identifiable post-Roman pottery ware types were identified, the type and general date range for these fabrics are shown in Table 2. The post-Roman pottery ranges in date from the Anglian to early modern periods and includes local, regional and continental vessels. A wide range of vessel types was recovered, although forms are mainly limited to various types of jugs, jars and bowls. More unusual vessels include examples of bottle, cup, curfew, dish, pipkin, drinking jug, plate and urinal.

Table 2 Pottery types from the site with total quantities by sherd and vessel count

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BERTH	Brown glaze earthenware	1550	1800	2	1
BEVO1	Beverley Orange ware Fabric 1	1100	1230	7	7
BEVO1T	Beverley Orange-type ware Fabric 1	1100	1230	1	1
BL	Black-glazed wares	1550	1750	2	2
BRANS	Brandsby-tyoe ware	1250	1350	14	12
CHPO	Chinese Export Porcelain	1640	1850	8	2
CIST	Cistercian-type ware	1480	1650	6	6
CREA	Creamware	1770	1830	3	3
DST	Developed Stamford ware	1150	1230	1	1
ELFS	Early fine-shelled ware	780	950	1	1
EMX	Non-local Early Medieval Fabrics	1150	1230	2	2
EST	Early Stamford ware	850	1010	5	5
EYGW	Early York Glazed ware	1180	1230	2	2
EYQC	East Yorkshire Quartz and Chalk tempered	1170	1250	3	3
GRE	Glazed red earthenware	1500	1650	5	3
GSS	Green sand and shell	1050	1250	1	1
HAMBL	Hambleton-type ware	1300	1550	2	2
HMYG	Handmade Yorkshire Gritty ware	1060	1230	2	1
HUM	Humber ware	1250	1550	44	31
HUMB	Humber Basin fabrics	1250	1500	1	1
IMP	Unidentified imported wares	450	1900	1	1
IPS	Ipswich-type ware	730	850	4	3
LFS	Lincolnshire Fine-shelled ware	970	1200	1	1
LHUM	Late Humber-type ware	1550	1750	2	2
LKT	Lincoln kiln-type shelly ware	850	1000	1	1
LSIMP	Late Saxon misc imported ware	850	1010	1	1
LSLOC	Lincolnshire Late Saxon Local Fabrics	850	1050	2	2
LSLS	Late Saxon Lincoln Sandy ware	850	920	2	2
LSX	Non-local late Saxon fabrics	870	1080	2	2
MAX	Northern Maxey-type ware	680	870	1	1

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
MEDX	Non Local Medieval Fabrics	1150	1450	9	9
NGR	Northern Gritty ware	1180	1450	15	13
NYLFLM	North Yorkshire Light Firing Late Medieval	1400	1550	6	5
PEARL	Pearlware	1770	1900	10	7
PORC	Porcelain	1700	1900	1	1
RAER	Raeren stoneware	1450	1600	2	2
REDCH	Reduced Chalky ware	1080	1230	2	2
RYDALE	Ryedale ware	1550	1750	1	1
SAIP	Saintonge polychrome ware	1280	1500	1	1
SIEG	Siegburg-type ware	1250	1550	1	1
SLIP	Unidentified slipware	1650	1750	2	2
SNLOC	Lincolnshire Saxo-Norman fabrics	870	1150	1	1
ST	Stamford ware	970	1200	38	36
STAMT	Stamford-type variants	950	1150	6	6
STAX	Staxton-type ware	1150	1500	3	2
STSL	Staffordshire/Bristol slipware	1680	1800	1	1
SWSG	Staffordshire White Saltglazed stoneware	1700	1770	1	1
THETT	Thetford-type fabrics	1000	1150	1	1
TORK	Torksey ware	850	1100	9	9
TORKT	Torksey-type ware	850	1100	9	9
TPW	Transfer printed ware	1770	1900	1	1
WEST	Westerwald stoneware	1600	1800	2	1
YG	Yorkshire gritty ware	1050	1250	66	53
YHMGT1	York Handmade Type 1	850	880	7	7
YORK	York glazed ware/York White ware	1150	1300	8	6
YORKD	York D ware	850	1000	4	4
YORKSPL	York Splashed ware	1080	1200	5	3
YSRW	York Sandy Red wares	1200	1500	1	1
YW	Anglo-Scandinavian York Ware	850	1000	19	14

4.1 MIDDLE SAXON AND HANDMADE WARES (8TH TO MID-9TH CENTURY)

Fourteen sherds representing thirteen different vessels are of Middle Saxon or handmade types. A shell-tempered Northern Maxey-type ware sherd (MAX) found residually in bonfire pit or kiln F53 in Phase 2, is probably from a large jar in Fabric B. This fabric is present in the Phase 1b post-Roman deposits at Flixborough, thought to date to between the late 7th and early 8th centuries, but probably continues in use into the mid-9th century (Young and Vince 2009). A second shell-tempered sherd is from an Early Medieval Fine-shelled ware jar (ELFS) of probable 9th century date. The four Ipswich ware sherds (IPS) probably come from three different vessels, two of which are jars in a fine sandy fabric and one that is probably a pitcher in a gritty fabric. All three of the fine sandy sherds came from daub and charcoal layer 1076 and appear to come from two different jars. The pitcher sherd has a roughly burnished external surface. Ipswich ware has previously been recovered from a number of sites in York (Mainman 1993, 557-562). Seven sherds, probably all from jars, are in Handmade ware Type 1 (YHMGT1). This type was first identified at Coppergate (Mainman 1990) where it was thought to date to between the mid- and late 9th century. A single sherd may be a Middle Saxon import (IMP). The sherd, which is in an off-

white fine quartz-tempered fabric, has a trail of red paint and probably comes from a jar or pitcher of French origin (pers. comm. A Mainman). This sherd was recovered from layer C1076 along with the ELFS jar, two Ipswich ware jars and one of the Handmade Type 1 jars.

4.2 ANGLO-SCANDINAVIAN WARES (MID-9TH TO MID-/LATE 11TH CENTURY)

Sixty-five sherds representing fifty-eight vessels in ten different ware types are of Anglo-Scandinavian type. The nineteen sherds from fourteen different York ware vessels (YW) are probably all from jars, although two sherds are undiagnostic and could potentially come from bowls. York ware has adequately been described elsewhere (*ibid.* 400-11) and is a common find on Anglo-Scandinavian sites in York as well as occasionally occurring at other regional centres such as Beverley (Watkins 1991, 74) and Lincoln (Young, Vince and Nailor 2005, 74). The type first appears in mid-9th-century contexts at Coppergate, York (Mainman 1990, 401) and may have fallen out of use by the end of the 10th century. Only four York D ware sherds, all from jars, were recovered from the site (YORKD). This type first occurs at Coppergate in Period 3 deposits alongside York ware and is also likely to have become residual by the end of the 10th century (*ibid.* 414-5).

The main Anglo-Scandinavian type to be found on the site is Torksey-type ware, which has been divided into vessels probably made at Torksey itself (TORK) and those likely to have been made elsewhere (TORKT). Torksey ware was probably first made at Torksey in Lincolnshire during the mid-9th century and continued to be produced there until the end of the industry sometime in the mid- to mid-/late 11th century (Young, Vince and Nailor 2005, 90). Thirteen kilns have been identified at Torksey producing a range of vessels in a mainly reduced quartz-tempered fabric that can occasionally contain moderate calcareous grains. A chronological sequence has been proposed for the kilns at Torksey (Wilkinson and Young 1995), but identification of individual vessels relies on the presence of diagnostic rims or decorative schemes. Only nine of the sherds recovered from 23 Clifford Street are likely to have been produced at Torksey and these include two bowls with pressed rim edges. This decorative technique does not appear to have started until the late 10th century and is a common feature of the later kilns at Torksey. The twenty Torksey-type sherds representing eighteen vessels include nine vessels that contain moderate to common carbonised vegetable matter within their fabric and also two sherds that have a finer fabric similar to that of Newark ware made in Newark, Nottinghamshire (Young, Vince and Nailor 2005, 92). As no roller-stamped vessels, or early rim types, were recovered from the site the Torksey-type sherds can only be generally dated to between the mid-9th and mid-/late 11th centuries.

Two reduced quartz-tempered sherds, probably both from jars, are of Lincoln Late Saxon Sandy ware (LSLS). This type was produced in Lincoln between the mid-9th and early 10th centuries (*ibid.* 44-6). Two probably wheel-thrown quartz-tempered greyware jars are of Lincolnshire type (LSLOC) and could date to anywhere between the mid-9th and mid-/late 11th centuries. Two other greyware jar sherds from unknown centres appear to be handmade, but are probably also of similar date. One of these is tempered with a Trent Valley sand suggesting that it may have been made in Nottinghamshire or Lincolnshire. The single Anglo-Scandinavian shell-tempered sherd is from a Lincoln Kiln-type jar of mid-9th to late 10th-century date (LKT).

Five sherds appear to be in Early Stamford ware Fabric A (EST), although one sherd has an atypical fabric and may either be an unusual example of Fabrics E/F or H, or have been made at another centre. Early Stamford ware pre-dates the mid-11th century and is usually associated with slightly thicker-walled vessels (Leach 1987). Three of the sherds are from unglazed jars, one of which has a row of diamond roller-stamping around the shoulder. The two other vessels are internally and externally glazed and probably come from pitchers. A single light grey sherd in a fine quartz-tempered fabric is probably an import (LSIMP). The sharp overhang rim is typically French (pers. comm. A Mainman), although similar shapes were also produced at Lincoln (Young, Vince and Nailor 2005, Fig 43, 63-65).

4.3 SAXO-NORMAN (11TH TO 12TH CENTURY)

One hundred and sixteen sherds representing one hundred vessels of Saxo-Norman type were identified amongst the assemblage. A total of sixty-six sherds representing fifty-three wheel-thrown vessels are in Yorkshire Gritty ware (YG). Yorkshire Gritty represents a carboniferous sandstone-tempered tradition with local variations in form and fabric which was probably produced at a number of production sites, mainly across West Yorkshire, between the mid to late 11th and early/mid 13th centuries (Vince and Young 2007, 255-7. This is the main type covered by the term 'Gritty ware' used in the Archaeology of York pottery volumes (Brooks 1987, 150).

Microscopic examination of the vessels from this site suggests that three main fabric types occur:

Site Fabric 1

This fabric is mainly mudstone-free and has a clean clay background. This was the main type found at at Inganthorpe Manor near Wetherby (Vince and Young 2007) but not at nearby Wetherby Castle where the type first appears in the sequence in the levelling deposits for the stone keep, but is absent from the pre-castle deposits (Didsbury and Young forthcoming).

Twenty-two vessels occur in this fabric; almost all of which are identifiable as small to medium-sized jars. Three sherds from a single vessel are from the lower handle join and body of a jug and a basal sherd with glaze spots may have come from either a jug or a jar.

Site Fabric 2

This fabric includes varying amounts of mudstone and iron-rich grains and is the most common of the three fabric types to be found on the Clifford Street site with twenty-nine vessels occurring. At Wetherby Castle this fabric is first found in pre-castle deposits (*ibid*) and also appears to be the earliest Yorkshire Gritty ware fabric to occur on this site. Most of the vessels are identifiable as small or medium-sized jars but one large jar and a bowl were also identified. Two sherds from the base and lower body of a jug have a splashed-type glaze.

Wetherby Castle Fabric 1

This highly micaceous fabric was first identified at Wetherby Castle (*ibid*) where it was mainly used for jars, bowls and occasional glazed jugs. The two sherds from this site probably come from jars but one sherd has a partial internal and external glaze and may be from a jug. Two sherds from a single handmade jar are in a gritty fabric (HMYG) similar to that found at Wetherby Castle where the type was first found in the make-up deposits for the stone keep (*ibid*).

Forty-six of the Saxo-Norman vessels are of regionally imported types, although some of the Stamford-type ware vessels were almost certainly made in Yorkshire. Thirty-eight sherds representing thirty-six vessels are of general Stamford type (ST). At x20 magnification under a binocular microscope thirty-two vessels have a fabric similar to that described as Fabric A at Stamford (Kilmurry 1980, 8). These vessels are mainly unglazed thin-walled jars or bowls of probable 11th- to mid-12th-century date, but a few vessels could potentially be of 10th-century date. The only two glazed sherds are probably from pitchers. Four of the rim sherds come from collared vessels traditionally dated to between the mid-/late 11th and mid-12th centuries, but more recently thought to potentially be an earlier development (Cumberpatch 2002). Only two jars and a jar or bowl are in Fabric B. This fabric is primarily a post-conquest development but vessels in this fabric have been found in potential pre-conquest deposits in the midlands. A small jar sherd is in a slightly finer fabric designated Fabric B/C. Refined Fabric C does not appear until the mid-12th century and vessels in this intermediate fabric are of similar date.

Six sherds are visually of Stamford-type (STAMT) but examination at x20 magnification reveals inclusions that suggest a Yorkshire source for these vessels. All six vessels are in light firing fabrics and are competently thrown with thin walls. Three main fabric types are present:

- 1) A small unglazed jar sherd found in buried soil C1031 has a fine background quartz similar to that found in mainstream Stamford Fabric A, but also contains sparse to moderate coarse carboniferous sandstone grains up to 2.5mm and moderate to common fine iron-rich grains. The iron-rich grains give this fabric a 'dirty' appearance similar to that found on Stamford Fabrics E/F and H. The uneven frequency of the carboniferous sandstone grains makes this sherd slightly gritty to the touch overall but a smaller fragment in this fabric could be missed.
- 2) Three sherds have a similar fine background quartz and iron-rich grains to that of the previous type, but only contain rare coarse carboniferous sandstone grains. Two of the sherds are from unglazed jars and the glazed rim sherd is from a jar or pitcher. The two unglazed sherds were recovered from buried soil 1030 and the glazed rim came from pit F8.
- 3) Two unglazed jar sherds are also in fine fabric with abundant fine background quartz and rare coarse carboniferous sandstone grains, but the fabric is highly micaceous. This fabric may represent a refined version of Yorkshire Gritty ware Fabric 2 as found at Wetherby Castle (Didsbury and Young forthcoming) where vessels at the finer end of this fabric could easily be visually mistaken for Stamford ware. The medium-sized jar was recovered from buried soil 1043 whilst the small jar sherd came from buried soil 1030 together with two other Stamford ware variant vessels.

Recent excavations at Pontefract have revealed a kiln producing vessels in a fine light firing fabric in Stamford ware forms (Cumberpatch 2002). Radiocarbon analysis suggests that the kiln dates to before the Norman conquest, however the forms are typical of assemblages dated elsewhere to between the early and mid-12th centuries. None of the sherds recovered from 23 Clifford Street match the fabric found at this kiln (the glazed jar/pitcher rim was kindly examined by Dr. C Cumberpatch), however it is not unreasonable to expect that other production sites existed.

The single Lincolnshire Fine-shelled ware jar sherd (LFS) cannot be dated closely, but is likely to be of 11th- to late 12th-century date. A second Saxo-Norman shell-tempered jar sherd from the site is also likely to be a Lincolnshire product from an unknown source (SNLOC).

Two regional imports are likely to be products of kilns in East Anglia. The Thetford-type ware jar sherd (THETT) found in buried soil C1043, is similar to vessels produced at Thetford, Norfolk between the 10th and 12th centuries. A handmade coarseware jar sherd tempered with greensand quartz and chalk (GSS) is also likely to be from eastern England. This ware has been found on sites mainly along the east coast, from Scotland down to Lincolnshire in deposits of late 11th to 12th-century date.

4.4 EARLY MEDIEVAL (12TH TO MID-13TH CENTURY)

A small group of material comprising thirty-eight sherds representing thirty-four vessels, is of early medieval type. These vessels in nine different ware-types of post-conquest to mid-13th-century type and including both coarsewares and glazed wares, are discussed briefly below. Production of the coarsewares was conservative and vessel form-type, manufacture and decoration changed little over the 100-150 years of their production.

Beverley-type 1 vessels (BEVO1 and BEVO1T) are the most common wheel thrown fineware type of early medieval date to be found on the Clifford Street site. Vessels classified as BEVO1 have a fabric similar to products that were produced in Beverley (pers comm. P Didsbury) and those with variant inclusions that were probably produced at other centres are recorded as BEVO1T. Seven sherds in BEVO1 Fabric A were recovered from the site. Five of the sherds come from small to medium-sized jugs with a 'splashed-type' glaze. These vessels are of pre-mid-/late 12th-century date (Didsbury and Holbrey 2009). One neck sherd with a thin spalling suspension glaze is from a small narrow-necked jug or bottle. The suspension glaze, suggests that it belongs to the last quarter of the 12th century or to the earlier part of the 13th (Watkins, 1991, 80 and Didsbury and Watkins 1992). One unglazed sherd is either from a jug or jar and can only be generally dated to within the production of the type between the 12th and early/mid- 13th centuries. No kilns for Beverley Ware Type 1 have yet been identified in Beverley, but finds of numerous wasters at Albion House (G. Watkins unpublished notes) and

Annie Reed Road (Didsbury and Holbrey 2009) suggest that it was manufactured in the Grovehill area of Beverley. A single sherd from a jug or jar, is in a variant fabric (BEVO1T) that may have been produced outside of Beverley, or could just be previously unrecorded Beverley fabric.

Five sherds from three different jugs are in possibly local 'splashed wares' (YORKSPL). Two of the jugs are in oxidised medium sand-tempered fabrics (York Archaeological Unit code MOX). The slightly inturned triangular rim on one of these two jugs suggests that it is of mid- to late 12th-century date. The other jug is in a pale reduced fabric (York code PALRED) and can only be generally dated to within the early medieval period. Two sherds come from Early York Glazed ware (EYGW) jugs of late 12th- to early 13th-century date (Brooks 1987, 152). One of these jugs has vertical wavy combed decoration.

Three regionally imported jugs include the only Developed Stamford ware (DST) vessel to be found on the site. The Stamford jug has a copper-mottled glaze and is in fine Fabric C. This vessel is of mid-12th to early/mid-13th-century date. The two jugs from unidentified sources (EMX) have 'splashed-type' glazes and could have been produced anywhere within the East Midlands or Yorkshire.

Fifteen sherds from thirteen different wheelthrown vessels tempered with coarse carboniferous sandstone but not falling within the definition of Yorkshire Gritty ware have been termed 'Northern Gritty ware' (NGR). The range of individual fabrics falling within this umbrella term is quite wide, as is the colour variation and rim typology. Thin section analysis has shown a wider range of inclusion types than is usually found in Yorkshire Gritty ware as well as a smaller mean grain size for the inclusions (Vince and Young 2007). Most of the sherds are from unglazed jars but four vessels have either a 'splashed-type' glaze or glaze spots. The glazed vessels include a jar with a rolled collared rim and a jug with a long thin rod handle. These vessels found on this site should mainly date to between the 12th and mid-13th centuries, but the ware continues in use until the 15th century.

Three oxidised fine to medium quartz and chalk-tempered vessels are likely to have been produced in East Yorkshire (EYQC). One sherd is from a jar and the other two could come from jars or bowls. This type may have originated in the late 11th century but is mainly a 12th to mid-13th-century type. Two small jars tempered with medium to coarse quartz and chalk are part of a Reduced Chalky ware tradition (REDCH). This type is a loose grouping of primarily reduced quartz-tempered fabrics, all of which contain common chalk grains (Watkins 1991, 79-80). It forms the main coarseware present at Lurk Lane, Beverley from the mid to late 12th century, although it first appears in the sequence in probable 11th-century deposits (Ibid., 64-66).

4.5 HIGH MEDIEVAL (13TH TO 14TH CENTURY)

Twenty-four sherds in five recognised ware-types and nine sherds of uncertain provenance are of 13th to 14th-century date. The most common high medieval type to occur on the site is Bransby-type ware (BRANS) with fourteen sherds representing twelve vessels. Kilns are known for Bransby-type ware at Bransby itself and there is documentary evidence for potting there between the 14th and 16th centuries (Le Patourel 1968, 124), but the type was most probably made at several centres within North Yorkshire (Brooks 1987, 153-154 and Jennings 1992, 24-25). It is first thought to appear in York in deposits dating to the second half of the 13th century only declining in the face of Humberwares during the second half of the 14th century (Brooks 1987, 153-4). All of the vessels recovered from this site are jugs and they include two decorated examples, of which one has an unusual pattern of diamond-shaped roller-stamping around the splayed base.

Eight sherds representing six different jugs are in York Glazed ware (YORK). This type was possibly made in the area of the Hambleton Hills (Jennings 1992, 18-21) between the late 12th and early to early/mid-14th centuries and is the major

glazed ware type to be found on sites in York in the first half of the 13th century (Brooks 1987, 151-2). A single sherd from a Sandy Red ware jug (YSRW) is probably of 13th or 14th-century date.

Three sherds are from two different Staxton-type jars (STAX). This coarseware was produced at least two centres in the Vale of Pickering (Earshaw and Watkins 1984, 35-7) between the late 12th and 14th centuries. Nine jugs of high medieval type are from unknown non-local centres (MEDX). A single imported sherd is from a Saintonge Polychrome (SAIP) jug with green and brown painted decoration. This type was in production between the late 13th and 14th centuries.

4.6 MEDIEVAL TO LATE MEDIEVAL (LATE 13TH TO MID-16TH CENTURY)

From the late 13th century onwards the high medieval-type jugs of the 13th and early 14th centuries gradually become supplanted by a new pottery type which continued in production into the first half of the 16th century. The longevity of production with little innovation throughout the *c.*230-250 years of production makes it difficult to determine a close date for most sherds in this conservative late medieval industry. Humberware (HUM) was produced at several centres in East Yorkshire (Watkins 1987, 98 and Watkins 1993, 76-90), in York at Blue Bridge Lane (Vince and Steane 2005) and probably also in North Lincolnshire. A similar iron-rich fabric known as Walmgate ware was also produced in York (Brooks 1987, 156-7), although this type is more coarsely gritted.

Forty-four sherds representing thirty-one vessels were recovered from the site, most of which come from small to large-sized plain jugs, although several drinking jugs, two urinals and a jar also occur. Eleven of the vessels are in a fine quartz-tempered fabric similar to that produced at Cowick and are likely to be products of kilns there. These vessels are all jugs of small to large size and include one drinking jug. Most of the Humberware vessels however are in a slightly coarser medium sand-tempered fabric that is similar to that of the vessels found at Blue Bridge Lane (*ibid*). None of the vessels from 23 Clifford Street have the typical copper-coloured glaze of Blue Bridge Lane suggesting perhaps another local production centre. This group mainly comprises medium-sized jugs but also includes two drinking jugs and a urinal. Pit F8 produced nine sherds from a single over-fired and distorted jug that may also be in this sandier fabric, but is too vitrified to determine. Four of the vessels are of purple-glazed Humber 4 type and date between the later 15th and mid-16th centuries (Watkins 1987, 106). These vessels include a jar and a urinal. A single jug sherd with a fine fabric is from the Humber Basin area (HUMB).

4.7 LATE MEDIEVAL TO EARLY POST-MEDIEVAL (MID-15TH TO 16TH CENTURY)

Seventeen sherds representing sixteen vessels can be considered to be of late medieval to early post-medieval type.

Two vessels are in Hambleton-type ware, which was probably made in a similar area to that of Brandsby-type ware (Brooks 1987, 159-160 and Jennings 1992, 30-31). The type is thought to date to between the 14th and mid-16th centuries. One sherd with internal and external copper-coloured glaze is from a drinking jug. The other sherd is from a lobed cup with a thick internal and external copper-coloured glaze. Six sherds representing five vessels are in a fine light-firing oxidised fabric (NYLFLM) that falls somewhere between the definition of Brandsby-type ware and Hambleton-type ware (pers. comm. Ailsa Mainman). These vessels may represent an industry such as that found during excavations at Castle Howard (Vince and Steane 2002). The sherds from Clifford Street all have amber or light copper-green coloured internal glazes and come from jugs and jars.

The six Cistercian ware sherds (CIST) are almost certainly of Yorkshire production and include small globular and tall cylindrical Type 3 tankards. Only one of the vessels is decorated with applied white clay strips and pellets forming a complex design. These cups are of late 15th- to 16th-century date.

The three imported sherds of this period are all from German stoneware drinking jugs. None of the vessels can be closely dated, but the single Siegburg jug is likely to date to between the later 14th and mid-16th centuries whereas the two Raeren jugs are of late 15th to mid-16th-century date (Hurst et al. 1986).

4.8 POST-MEDIEVAL (16TH TO 18TH CENTURY)

Eight sherds representing six vessels are of general post-medieval type. Glazed Red Earthenwares (GRE) first appear in mid-16th century deposits in East Anglia and Lincolnshire and reflect Flemish or Dutch influence. Production sites in Lincolnshire include Boston, Bolingbroke, Grimsby and Toynton St Peter. It is probable that kilns producing this type were operating in East Yorkshire and quite possibly in North Yorkshire. They are considered a type fossil for the period between the late 16th and mid-17th centuries, although they continue to be manufactured well into the 18th century. Five sherds from three different vessels were recovered from Clifford Street. All three vessels, two of which are of 17th- to 18th-century type, are likely to be jars.

Late Humber ware-types (LHUM) first appear in mid-16th century pre-Dissolution deposits in both Lincolnshire and East Yorkshire and continue to be manufactured into at least the late 18th century. One of the sherds from this site comes from a large bowl and the other from a jug or jar.

A single sherd of post-medieval Ryedale-type (RYDALE) was recovered from the site. A number of sites in North Yorkshire are known to have been producing this type of pottery including Stearsby, near to the medieval kiln site of Brandsby (Hayes 1978). Dating of Rydale ware is generally thought to span the late 16th to 18th centuries (Brooks 1987, 162-163), but the type has been recovered from earlier groups for example at Vicar Lane in Hull where it occurs in Phase 5 deposits dated to the mid-15th to mid-16th century (Watkins 1993, 123-124). The sherd from this site comes from a jar with a spalling internal and external glaze.

4.9 LATE POST-MEDIEVAL (17TH TO 18TH CENTURY)

Nine sherds representing seven vessels are of 17th- to 18th-century date. These vessels include back and brown-glazed earthenwares, slipwares and an imported stoneware. Two sherds from a single Brown-glazed Earthenware jar (BERTH) are likely to be from a local or East Yorkshire product of mid-16th- to 18th-century date. The two Black-glazed Earthenware (BL) sherds are both from cups, although one is of mid-16th- to 17th-century type whilst the other is of mid-/late 17th- to 18th-century type.

The single decorated Staffordshire-type Slipware sherd is from a press-moulded dish (STSL) of late 17th- to 18th-century date and could have been produced either in Yorkshire, Derbyshire or North Staffordshire. Two other Slipware sherds (SLIP) are both from large thrown bowls of late 17th- to 18th-, and 18th- to 19th-century date. Both vessels are likely to have been made in Yorkshire.

Two sherds are from a single Westerwald-type drinking jug with blue and purple decoration. This jug is likely to be of 17th- to mid-18th-century date.

4.10 EARLY MODERN (MID-18TH TO 20TH CENTURY)

Twenty-four of the sherds examined, representing fifteen vessels are of early/mid-18th to 20th-century date. These comprise porcelains, stonewares and industrial finewares, mainly of mid-18th- to 19th-century date. Of note are two small decorated Chinese Porcelain drinking bowls (CHPO) of 18th-century date and another probably imported small porcelain dish (PORC) with an internal over-glazed painted floral and Chinese design.

5.0 THE SITE SEQUENCE

Three hundred and seventy-two sherds of post-Roman pottery, representing a maximum of three hundred and thirteen vessels were recovered from the site. Most of the pottery was recovered from deposits in Period 2.

Table 3 Post-Roman pottery by period with total quantities by vessel count

Cname	Period 1	Period 2	Period 3a	Period 3b	Period 4
Middle Saxon and handmade wares	1	13	0	1	0
Anglo-Scandinavian	9	41	3	5	0
Saxo-Norman (11th to 12th)	0	75	20	4	1
Early medieval (mid-12th to early/mid-13th)	1	23	7	3	0
High medieval (13th to 14th)	0	7	21	3	1
Late medieval (late 13th to mid-16th)	0	1	12	15	4
Late medieval to early post-medieval (mid-15th to 16th)	0	0	3	8	4
Post-medieval (16th to 18th)	0	0	0	0	6
Late post-medieval (17th to 18th)	0	0	0	0	7
Early modern (18th to 20th)	0	0	0	0	15
Totals	11	160	66	39	38

5.1 PERIOD 1

Fifteen sherds representing eleven vessels were recovered from Period 2 deposits. The five sherds recovered from buried soil layer C1016 include three Torksey-type bowls (TORK and TORKT), two of which have finger-pressed rims suggesting a post-late 10th century date for these vessels. A jar in a fine light reduced fabric (LSIMP) is most probably a continental Anglo-Scandinavian import of French origin. The latest sherd in this group is from a small Reduced Chalky ware (REDCH) jar of probable mid-11th-century or later date. This group is likely to date to between the mid- and mid-/late 11th century, although the imported jar may be residual. Clay layer C1125 produced ten sherds from six different jars. The group comprises five York ware jars (YW) and one Handmade ware Type 1 jar (YHMG1). Most of the sherds have external or internal carbonised or soot deposits suggesting that they have been used for cooking. The group is likely to be of mid-9th to 10th-century early Anglo-Scandinavian date.

5.2 PERIOD 2

This period produced 163 sherds from 144 vessels. The pottery was recovered from a number of buried soils, mortar surfaces, cut features and a burnt daub and charcoal layer.

A small mixed group of sixteen sherds was recovered from buried soil layer C1030. The group includes a residual Handmade Ware Type 1 jar or bowl sherd (YHMG1) and three residual Anglo-Scandinavian sherds (YORKD and YW). The latest sherds comprise unglazed Stanford jars and pitcher (ST and STAMT) and Yorkshire Gritty ware jars and a bowl (YG). The group belongs to the period between the mid-11th and mid-12th centuries.

Two sherds from York ware (YW) jars were recovered from buried soil layer C1030. These sherds can only be generally dated to between the mid-9th and 10th centuries.

Buried soil layer C1041 produced a small group of eighteen sherds representing sixteen vessels. The group contains a mixture of Torksey (TORK and TORKT), Stamford (EST and ST) and Yorkshire Gritty wares (YG) as well as a single Beverley 1 jug or jar sherd with a 'splashed-type' glaze. This group is likely to belong to the first quarter of the 12th century with at least the Torksey wares and some of the Stamford vessels being residual.

The small mixed group of eighteen sherds found in buried soil C1031, includes some vessels in a fairly fresh condition suggesting primary deposition. The group contains a range of gritty fabrics (NGR, YHMG1 and YG), Stamford types (STAMT and ST) and glazed quartz-tempered vessels (BEVO1, MEDX and YORKSPL). The latest of the sherds is from a jug with a pocked suspension glaze with copper flecks (MEDX). This jug is similar to vessels produced at Doncaster (Buckland et al 1979) but has a slightly different fabric and may come from an unknown centre. It is unlikely that a jug with a suspension glaze and copper flecks pre-dates the last quarter of the 12th century and although the type continues in use through the first quarter of the 13th century, it is more likely that this group is of mid-/late to late 12th-century date.

The two jugs found in layer C1091 are both in gritty fabrics (NGR and YG). These sherds can only be generally dated to between the mid-12th and early/mid-13th centuries.

A single 14th-century Brandsby-type jug sherd (BRANS) was recovered from buried soil C1015. The jug has been fired on its side as the thick internal glaze has pooled to one side.

A small very mixed group of 34 sherds representing 32 vessels was recovered from buried soil C1110. This very mixed group contains vessels of Anglian, Anglo-Saxon, Saxo-Norman and early medieval date. The single Anglian sherd is from an Ipswich ware pitcher (IPS) with a partially burnished external surface. Anglo-Scandinavian vessels include Torksey (TORK and TORKT) and Stamford types (EST) as well as a regional greyware jar from Lincoln (LSLS). A range of Saxo-Norman and early medieval types include jugs and jars in Stamford ware (ST) and gritty wares (NGR and YG). The latest sherd in the group is from an Early York Glazed ware jug (EYGW) of mid-12th to early 13th-century date.

A small number of sherds were recovered from three different mortar surfaces (C1044, C1075 and C1109). The eight sherds found in surface C1109 include four Yorkshire Gritty ware (YG) vessels, probably all jars, a Stamford ware (ST) jar, a York Glazed ware jug (YORK) and an Anglo-Scandinavian York ware (YW) jar or bowl sherd. The latest of these vessels is the York Glazed ware jug, which can be dated to between the late 12th and 13th centuries. A single wheel-thrown sherd from a jar in a reduced quartz-tempered fabric (LSX) was recovered from mortar surface C1075. The sherd is likely to be from an unknown centre in Nottinghamshire or Lincolnshire and be of mid-9th- to mid-11th-century date. Mortar surface C1044 produced a single Humberware jug sherd (HUM). The fabric of this vessel suggests that it is a product of kilns at Cowick and dates to between the late 13th and mid-16th centuries.

A very mixed group of 53 sherds representing 43 vessels was recovered from daub and charcoal layer C1076. This group contains four probable middle Saxon vessels including two Ipswich ware jars (IPS), a Lincolnshire Early Fine-shelled ware (ELFS) jar and an imported white ware jar or pitcher (IMP) with a trail of red paint. The latest vessels in the group are glazed York (YORK) and Beverley Type 1 jugs (BEVO1) of probable late 12th-century date.

A small group of ten sherds representing nine vessels was recovered from pit F51. The group includes a Torksey-type jar (TORKT) and a range of coarse-tempered vessels, probably all jars (EYQC, GSS, HMYG, NGR and YG). These coarse-tempered types are unlikely to occur stratified together before the late 11th century, but could occur throughout the 12th century. Possible pit F43 produced two glazed sherds (EMX and YG) of general mid-12th to early/mid-13th-century date. The single sherd from clay lined cistern F48 comes from a Beverley 1 jug with a 'splashed-type' glaze of early/mid- to mid-/late 12th-century date. Nine sherds from eight different vessels of mixed date, were recovered from bonfire kiln or pit F53. Several of the sherds have soot or carbonised deposits but none of the vessels appear to have been burnt. The group includes

a large middle Saxon Northern Maxey-type jar (MAX) and a small Handmade ware Type 1 jar (YHMG1) as well as six Anglo-Scandinavian vessels of York (YORKD and YW), Torksey (TORKT) and Lincolnshire (LSLOC) types. The latest of these vessels date to between the 10th and mid-11th centuries.

5.3 PERIOD 3A

Eighty-two sherds from 67 different vessels were recovered from buried soils, layers and cut features in this period. Small groups were recovered from three buried soil layers (C1043, C1067 and C1101). Buried soil C1101 produced the largest group of pottery with 24 sherds representing 21 vessels. This group is very mixed with vessels ranging from Anglo-Scandinavian to late medieval date. The small element of medieval to late medieval date includes two Brandsby-type jugs (BRANS), three non-local regional imports (MEDX), a York Sandy Red ware jug (YSRW) and a Humberware dinking jug (HUM). Potentially this group could date to the 14th century, however Humberware drinking jugs first occur in 14th century deposits in Hull and Grimsby and continue in use until the end of production, probably in the mid-16th century.

The 16 sherds representing 14 vessels found in buried soil C1043 include eleven vessels of Saxo-Norman to early medieval date. The latest sherd comes from a late Brandsby-type jug (BRANS) of 14th to 15th-century date. Buried soil C1067 produced three sherds from a single York Glazed ware (YORK) jug of 13th- to early 14th-century date.

The four medieval sherds recovered from floor preparation layer C1105 include two Brandsby ware jugs (BRANS), a Humberware jug (HUM) in a sandy fabric and a regionally imported jug from an unknown centre (MEDX). It is probable that all four of these vessels date to the 14th century. Occupation layer C1153 produced one York ware (YORK) and one Humberware jug (HUM). Potentially the Humberware jug could date to between the late 13th and mid-16th centuries, but it is most likely to belong to the 14th century.

The largest of the four pit groups came from two different fills of pit F8 (C1040 and C1169) with 21 sherds representing 13 vessels. The group contains a few residual sherds of Saxo-Norman to early medieval date, but otherwise appears to date to the 14th century. The three Brandsby-type jugs (BRANS) include one with vertical combed decoration and the single Hambleton-type ware sherd comes from a small jug (HAMBL). The five Humberware vessels (HUM) include an urinal and nine sherds from a single jug that appears to be a waster. The distorted jug has been over-fired and the fabric has begun to vitrify.

Four vessels including two undecorated Cistercian ware cup sherds (CIST) were recovered from pit F71. The two Cistercian ware cups can only be dated generally to between the late 15th and 16th centuries. Pit F58 produced two Humberware jugs (HUM) and a regionally imported jug from an unknown centre (MEDX). The Humberware jugs can only be generally dated to between the 14th and mid-16th centuries, but as they are in a sandy fabric are most likely to date to the 14th century. A single Brandsby-type jug sherd (BRANS) of probable late 13th- to 14th-century date came from pit F39.

Well F69 produced a single sherd from a small Humberware jug (HUM) of general 14th- to mid-16th-century date.

Two robber trenches or pits produced post-Roman pottery (F32 and F46). The two sherds from F46 include one Anglo-Scandinavian York D ware jar base and the rim of an imported Raeren Stoneware drinking jug (RAER) of late 15th- to mid-16th-century date. A single Humberware drinking jug handle (HUM) of general 14th- to mid-16th-century date came from F32.

5.4 PERIOD 3B

The 47 sherds recovered from Period 3b deposits represent 39 different vessels. The pottery was mainly recovered from buried soils and cut features. The largest group to be recovered from the buried soils came from layer C1065. The 15 sherds from this layer represent 13 vessels of mixed date. The latest sherds include Humberware jugs and jars (HUM), a Hambleton-type lobed cup (HAMBL) and an imported small Siegburg drinking jug (SIEG). These vessels are of mid-15th- to 16th-century date, however they are probably residual as clay pipe(s) were also recovered from this layer. Buried soil layer C1088 produced three Humberware jugs (HUM) of which the latest is of 15th- to mid-16th-century date. Again clay pipe(s) were found in this deposit.

The four sherds recovered from buried soil C1010 include a Humberware jug (HUM), a Cistercian ware cup (CIST) and an imported Raeren drinking jug (RAER). The latest of these sherds belong to the 16th century. Buried soil layer C1039 produced three sherds from two jugs of probable mid-14th- to 15th-century date. The Brandsby-type jug (BRANS) is unusually decorated with diamond roller-stamping around the base.

Five of the six sherds recovered from buried soil C1100 are of Anglo-Scandinavian or early medieval type. The sixth sherd is from a small Cowick-type Humberware jug or jar (HUM) of late 13th- to mid-16th-century date.

A single decorated Cistercian ware cup sherd (CIST) was recovered from demolition layer C1074. The sherd is in a fairly fresh condition and has a complex design form with white clay strips and pellets. This cup is likely to be of late 15th- to mid-16th-century date.

Two possible rubbish pits produced post-Roman pottery (F3 and F16). The single sherd from pit F3 comes from a Cowick-type Humberware jug (HUM) of 14th- to mid-16th-century date. Pit F16 produced two Humberware jug sherds (HUM) and a residual Torksey-type (TORKT) jar or bowl sherd. The Cowick-type Humberware jug is of 14th- to mid-16th century date.

Robber trench or pit F7 produced a single sherd from a Humberware jug (HUM) of late 13th- to 15th-century date. Nine sherds representing four vessels were recovered from demolition pit F40. Four of the vessels including an urinal are in Purple-glazed Humberware (HUM Fabric 4). This type is of mid-15th- to mid-16th-century date, but is most common during the first half of the 16th century. A single Brandsby ware jug sherd (BRANS) of mid-13th- to 14th-century date was recovered from possible post hole F34.

5.5 PERIOD 4

Period 4 deposits produced a group of 51 sherds representing 38 vessels. The material was mostly recovered from buried soils and ranges in date from the Anglo-Scandinavian to early modern periods. Most deposits contain single sherds or small groups of five or less vessels the material includes a high residual element. Of note is the small group of 29 sherds representing 19 vessels found in buried soil C1063. The group was probably deposited in the late 18th century and includes two imported Chinese Porcelain drinking bowls (CHPO), a small porcelain dish with an internal over-glazed painted oriental design (PORC) and an early Pearlware bottle (PEARL). The group suggests that it came from an affluent household.

6.0 SUMMARY

This is a small but significant assemblage, which provides an opportunity to look at the use of pottery in this part of York over a period of more than a thousand years. As with other groups recovered from York (Brooks 1987, 120-5 and Mainman 1990, 389-90) and other deeply stratified urban sites elsewhere (Young, Vince and Nailor 2005, 10-11), there is quite a high element of residual material within many of the deposits. Few groups can be highlighted as primary deposits and the

condition of much of the pottery suggests continual re-working of material. A small amount of residual middle Saxon pottery (13 vessels) was recovered from the site, but no deposits of this date were excavated. This could represent disturbed material or could have been brought onto the site from elsewhere. Fifty-eight Anglian vessels were recovered from a number of deposits, but again much of this material is residual. The earliest stratified group is clay layer C1125 in Period 1 where a small group of Anglian pottery could date to as early as the mid- to late 9th century. A few other deposits possibly belong to the 10th and first half of the 11th century, otherwise most of the Saxo-Norman pottery is probably of early post-conquest date. Little pottery of post-mid-12th to mid-13th-century date was recovered from the site, but mid-13th- to 15th-century pottery is more common. No groups attributable to the period of the dissolution were recovered and most of the later pottery belongs to the 18th century.

Most of the pottery recovered from this site is comparable to material recovered from sites elsewhere in York. A previously unrecognised late medieval type was represented on this site by five different vessels (NYLFLM), possibly suggesting that its use could be linked to the presence of the friary. Previous excavations on the site and in the immediate area do not appear to have produced the Anglian pottery found on this site, but did recover small amounts of Anglo-Scandinavian material (YAT 1991a; 1991b; 1999).

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APPENDIX C THE ROMAN CERAMIC

Ian Rowlandson with Samian identification by Gwladys Monteil

1.0 INTRODUCTION

The pottery has been archived using count and weight measures according to the guidelines laid down for the minimum archive by the Study Group for Roman Pottery (Darling 2004) using the codes fabric and form codes developed by the City of Lincoln Archaeological Unit - CLAU (see Darling and Precious forthcoming). An attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). The pottery selected as suitable for illustration, fabric samples and the specialist wares (Samian, amphorae and mortaria) have been bagged separately for ease of future reference. The archive record (Appendix 1) is an integral part of this report and will be curated in an Access database available from the author in a digital format. The report was produced on the basis of a phased matrix provided by FAS. Thanks go to Jane Young for discussing the assemblage with lead author and to Gwladys Monteil for providing the Samian identification.

2.0 CONDITION

The Roman pottery from the excavation totalled 25 sherds, weighing 0.609kg, from ten contexts. The condition of the sherds if mixed, from fresh to abraded. All Roman sherds were residual or stratified above post Roman deposits. The average sherd weight is reasonably high at 24.36kg per sherd.

3.0 DATING

The detailed archive is presented as Appendix 1. The table below provides a quantified spot dating summary by context. All of the Roman pottery was residual or stratified above post-Roman deposits.

Dating summary					
Context	Spot date	Comments	Sherd	Weight	Total RE %
1125	3C*	A single fragment from the rim of an 'African' type bowl with a bead rim	1	30	10
1030	EM4	A rim fragment from a 'proto-Huntcliff' jar	1	37	15
1148	L4*	A small mixed group including a fragment of a Crambeck Type 9 bowl	4	123	10
1150	L1-2*	A single jar fragment with a hooked rim in a coarse Ebor fabric	1	30	11

As all of the pottery was residual in later contexts little more needs to be said about the dating range other than sherds typical of the earliest through to the latest phases of Roman ceramic usage were present. Although there have been Roman finds in this area there have been few interventions that have produced large groups of Roman pottery from the vicinity of the castle (Monaghan 1997). As such it is difficult to place this group into a local context beyond the broad statement that it appears that Roman deposits were not reached during this investigation.

4.0 OVERVIEW OF FABRIC AND FORMS

The fabrics and forms from the site as a whole are shown in the tables below.

Fabric summary							
Fabric	Fabric group	Fabric details	Sherd	Sherd %	Weight	Weight %	Total RE %
YS4	Samian	Eastern Gaul	2	8.33	37	6.19	8

Fabric summary							
Fabric	Fabric group	Fabric details	Sherd	Sherd %	Weight	Weight %	Total RE %
YS3	Samian	Central Gaul (Lezoux)	2	8.33	19	3.18	3
YG11	Reduced	Handmade grey ware in Roman style	1	4.17	37	6.19	15
YB18	Reduced	Late handmade ware (burnished)	2	8.33	9	1.51	3
YB16	Reduced	Grey burnished local/East Yorkshire	4	16.67	52	8.70	0
YB12	Reduced	Crambeck grey ware	1	4.17	29	4.85	0
YP2	Oxid	Crambeck late parchment ware	1	4.17	90	15.05	10
YO0	Oxid	Unidentified oxidised wares	1	4.17	11	1.84	0
YE2	Oxid	Eboracum 2	1	4.17	30	5.02	11
YE1	Oxid	Eboracum 1	3	12.5	55	9.20	10
YM2	Mort	Crambeck Later fine painted fabric	1	4.17	87	14.55	12
YM1	Mort	Crambeck Early coarse fabric	1	4.17	8	1.34	0
YC2	Fine	Lower Nene Valley Colour coat, grey	1	4.17	20	3.34	0
YC1	Fine	Lower Nene Valley colour coat, cream	1	4.17	10	1.67	0
YK2	Calcareous	Knapton ware	2	8.33	104	17.39	0
BD	Bowl/dish	-	2	8.0	41	6.73	0
D	Dish	Unclassified form	1	4.0	11	1.81	0
J	Jar	Unclassified form	5	20.0	124	20.36	3
YJE2	Jar	Everted rim with grooved shoulder	1	4.0	30	4.93	11
YJK2	Jar	'Proto-Huntcliff' curved rim type	1	4.0	37	6.08	15
YJT	Mort	Handled jar	1	4.0	32	5.25	3
YMD	Mortaria	Double flange, Crambeck 8	1	4.0	87	14.29	12
M	Unknown	Unclassified Form	1	4.0	8	1.31	0
-		Form uncertain	5	20.0	43	7.06	0

The majority of the pottery in the group is of late Roman date including examples of Crambeck forms 8 and 9, a 'proto-Huntcliff' type jar, East Yorkshire burnished grey ware and a single sherd from a Nene Valley colour coated beaker. The earlier Roman pottery present includes four sherds of pottery and a small quantity of Ebor ware. As this is a small assemblage little more can be said about the group. Unsurprisingly, later Roman pottery is more abundant in this group.

5.0 CONCLUSIONS

The small assemblage shows unsurprisingly, that there is Roman pottery within the later post-Roman deposits.

6.0 RECOMMENDATIONS

Although these sherds are from post-Roman contexts there are few groups of Roman pottery from the vicinity of the area around the castle. Therefore the pottery should be retained and deposited in the relevant local museum.

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Appendix 1

Context	Fabric	Form	Decoration	Vessel	Alt	Comments
1097	YM2	YMD		1	WORN INT	RIM -0 BASE
1150	YE2	YJE2		1		RIM; SIMILAR RIM TO MONAGHAN NO 3794
1148	YE1	J	STAB	1		BS; JAR FRAGMENT WITH A BAND OF DIAGONAL STABS AROUND GIRTH
1148	YM1	M		1		BS
1148	YE1	-		1	VAB	BS
1148	YP2	YBW2		1	CONCRETION EXT	RIM; FORM AS MONAGHAN 3390 CRAMBECK 9
1125	YE1	YBA6		1		RIM; FORM AS MONAGHAN 3934
1101	YC1	BD		1	ABR	BS
1101	YK2	J	HM; B EXT	1		BS; LOWER WALL; IRF - PATCHY FIRING
1076	YB16	-		1		BS
1030	YG11	YJK2		1	SOOT EXT; POST FIRING HOLE	RIM SHLDER; AS MONAGHAN 3813
1110	YB18	J	HM; B EXT	1		RIM
1041	YK2	BD	HM; B INT	1		BASE
1041	YC2	BK?		1		BASE
1098	YB12	J		1		BASE
1098	YB16	YJT		1		HANDLE FRAGMENT; WHEEL THROWN AND RIDGED
1098	YO0	-		1		BASE; UNUSUAL BASAL SHERD - REJECTED BY J. YOUNG
1041	YS4	36	BARB	1	ABR	RIM; PRODUCTION AD150-250
1041	YS3	B		1		RIM; PRODUCTION AD120-200
1041	YS3	D		1	REP	BS; PRODUCTION AD120-200; GM WRITES part of a circular repair hole is just about visible, next to it are further attempts
1101	YS4	BH		1	ABR; BURNT	BASE; PRODUCTION 150-250; GM WRITES chunky base, prob from a Dr37, completely abraded on its ext surface so no BE possible. Heavily burnt. The fabric looks TR (TRIER)
1110	YS3	37	MOULD	1		BS; PRODUCTION AD140-200; GM WRITES detail U246 like next to legs of a tall figured type (Hercules? Or os264) Looks Anto

APPENDIX D THE ANIMAL BONE

Matilda Holmes

1.0 INTRODUCTION

Animal bone was recorded from a midden associated with Phase 1 (pre-Conquest), a range of features, particularly midden, layer and pits from Phase 2 (pre-monastic), and midden, pit and layer features from Phase 3 (monastic), as illustrated in Table 1. Assemblages from Phases 1, 3a and 4 were too small to be commented on in detail, although they will be briefly appraised in terms of species representation. The animal bones of Phases 2 and 3 will be investigated more thoroughly. Data from Phase 3 will be amalgamated with that of Phases 3a and 3b, as sample sizes of sub-phases are too small to be comparable, or show reliable trends.

Table 1 Number of tooth and bone fragments identified to species and/or anatomy by feature type

Date	m9-m11th	11-13th	m13-16th	m13-14th	14-16th	18-19th
Phase	1	2	3	3a	3b	4
Feature						
Midden	72	192		15		
?Cistern		2				
Layer		101	147			
Pit		96			199	
None						1
Total	72	391	147	15	199	1

2.0 METHODOLOGY

Bones were identified using the author's reference collection. Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/goat', unless a definite identification (Prummel and Frisch 1986; Payne 1985) could be made. Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (small - rodent/rabbit sized; medium - sheep/ pig/ dog size; or large - cattle/ horse size). Ribs were not identified to species, only vertebrae fragments including the body and the maxilla, zygomatic arch and occipital areas of the skull were identified to species.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Silver (1969), as were bone fusion (Amorosi 1989 and Silver 1969), metrical data (von den Driesch, 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988; Sykes 2007) and working. The condition of bones was noted on a scale of 1-5, where 1 is perfectly preserved and 5, the bone is so badly degraded to be almost unrecognisable (Lyman 1994, 355). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments. All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so they did not bias the relative frequency of species present. Details of articulated bones were recorded in a separate table.

No distinction was made between sieved and hand collected samples.

3.0 TAPHONOMY AND CONDITION

Bones were generally in good to fair condition (Table 2), with very few fresh breaks or refitted fragments, suggesting that burial conditions were conducive to good preservation, and that there was minimal movement *in situ*. There was little evidence for canid or rodent gnawing, although both effects were recorded, and this, combined with the low ratio of loose molars to molars remaining within mandibles suggests that bones were buried soon after disposal, prohibiting access to scavengers, and keeping the connective tissue of the lower jaw intact prior to burial.

Very few bones showed signs of burning, implying that they were not exposed directly to fire either as part of processing or disposal practices. The incidence of butchery marks was high, demonstrating the deliberate processing of animal bones in all phases. In Phase 2 cattle bones were much more fragmented than those of sheep and pig (Figure 1), as the majority of cattle bones are recorded as less than half complete, yet sheep and pig bones were more likely to be represented by a greater number of zones. In Phase 3 the bones of all three of the main domesticates are highly fragmented, which implies a change in processing or procurement of meat between phases, which will be explored in more detail below.

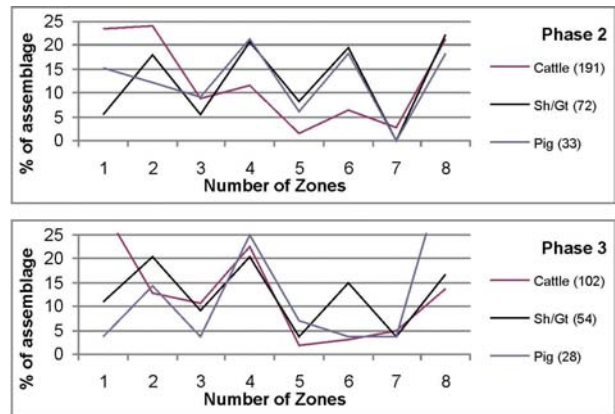


Figure 1

Table 2 Condition and taphonomy of bones identified to species and/or element

Condition	1	2	3	0.125	3b	4
Fresh	1				2	
Good	2	30	136	64	6	132
Fair	3	29	179	49	7	48
Poor	4	1	26	7	2	3
Very poor	5					
Total		60	341	120	15	185
Taphonomy	1	2	3	0.125	3b	4
Butchery	25%	17%	18%	47%	10%	
Burnt		1%			1%	
Gnawed		4%			3%	
Fresh break	7%	7%				100%
Refit	2=1	14=7	2=1		2=1	
Loose teeth: mandible	0.0021	0.340972	0.167361		0.0028	

3.1 CARCASS REPRESENTATION AND BUTCHERY

The assemblage from Phase 2 was large enough to investigate the representation of anatomical elements in terms of the deposition of complete carcasses. The relative proportion of cattle bones are generally recorded in quantities reflecting the deposition of complete carcasses on site - although with an under-representation of mandibles (Figure 2) - indicating that

the heads were removed prior to, or after procurement. Sheep bones, however, are more likely to have been subject to some form of redistribution, as the number of fragments from high meat-bearing bones (i.e. pelvis, femur, humerus, proximal tibia) are under-represented (Figure 3). Although sample sizes are small, when the carcass parts of the main domesticates from Phase 3 are tabulated (Table 3), they show a predominance of fore limb (humerus, scapula and radius) and lower leg (metapodial) fragments for all species.

Butchery marks were recorded on bones of cattle, sheep/goat and pig, as well as antler and chicken (domestic fowl) bones. Horncores were removed from skulls, and in all phases there was evidence for the longitudinal splitting of metapodials for marrow extraction, and the axial splitting of sheep skulls in Phases 2 and 3 to allow removal of the brain. Longitudinal splitting of the carcass into sides of meat was in evidence from the butchery of vertebrae, which took the form of the removal of the lateral processes in all phases. However, there was an increasing incidence of longitudinal splitting of the carcass into two equal sides from Phase 2, which is consistent with trends noted on other Anglo-Scandinavian and Norman sites (Holmes 2011, Chapter 4). This is related to a change in the techniques used to split the carcass, whereby it is hung in later phases, rather than being butchered on its side, which leads to the removal of the lateral processes, which is more common in earlier phases.

Other butchery marks are consistent with the disarticulation of the carcass, particularly in the following areas: distal scapula; distal humerus and proximal radius; pelvis and proximal femur; and femoral midshaft. Filleting of meat was also reflected in shave marks on metapodia, tibiae, femora and calcanei, and the removal of the spine from scapulae in Phases 1 and 2. Evidence for hanging meat was also recorded in Phase 3 from holes in scapulae consistent with the use of a hook, allowing meat to be cut off as required.

The combination of butchery and evidence for the redistribution of bones implies that this small assemblage originated as domestic refuse of the meat-bearing bones from cattle, sheep and pigs from Phase 2, prior to the monastic phase. By the 13th century, however, this area was used to dispose of carcass parts more indicative of primary butchery waste, those bones which are discarded during the butchery of a carcass prior to the distribution of meat (and bones). Metapodia are often used in the production of bone artefacts, and although they are relatively abundant in this assemblage, there is little evidence for saw marks or off cuts to indicate that this was the case in these deposits. Similarly, there is a

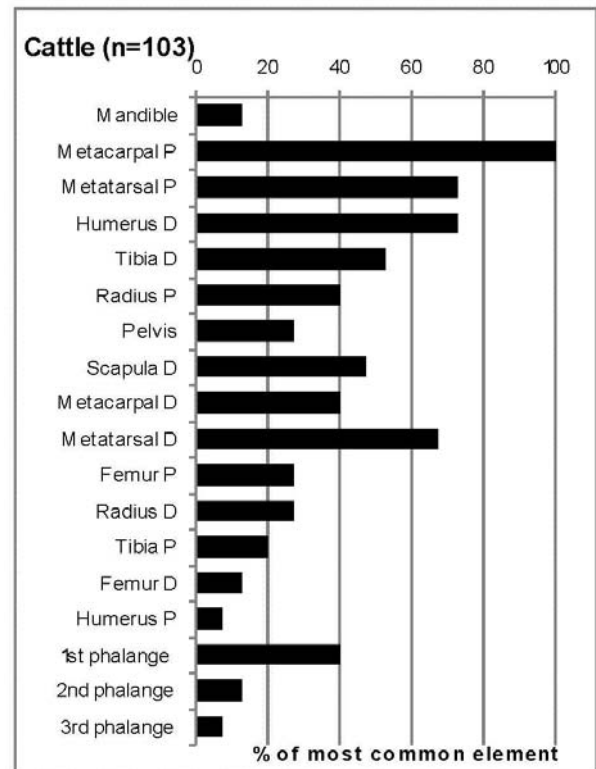


Figure 2

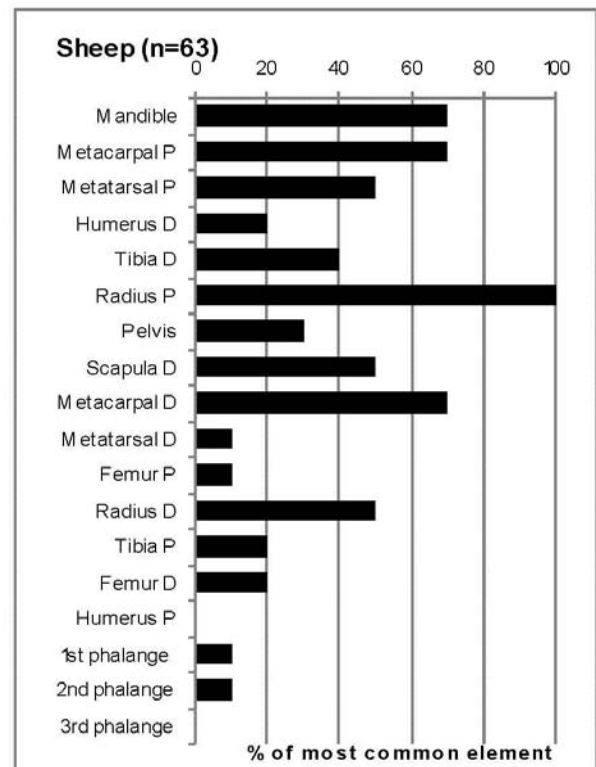


Figure 3

notable dearth of horn cores, suggesting that these were redistributed to a horner or skin processor at a separate stage of the rendering process.

A small quantity of worked bone and antler were recorded, which included polished red deer antler from all phases, and a worked antler offcut from Phase 2 (C1031), as well as a sawn cattle metapodial from Phase 1 (C1125), a polished and turned goose ulna from Phase 2 (C1150) and a sheep radius with signs of polishing on the shaft from Phase 3 (C1100), which suggests that there may have been some small-scale craft activity in the area in all phases.

Table 3 Carcass part representation (epiphysis count)

	Cattle		Sheep/Goat		Pig	
Element	2	3	2	3	2	3
Horn core	1					
Skull			1	1		
Occipital		2		3	1	1
Zygomatic	3					2
Mandible	2	1	7	1	1	2
Atlas	3		1	1		
Axis		4		2	1	2
Cervical vert.	2	2	4	2	2	
Thoracic vert.	7	12		3		
Lumbar vert.	6	2	5	7		
Sacrum	1	1	1			
Caudal vert.				4		
Scapula D	7	3	5	1		1
Humerus P	1			2		
Humerus D	11	1	2	2	3	
Radius P	6	2	10	3	4	2
Radius D	4	1	5		2	
Ulna	2					1
3rd Carpal		2		1		
Pelvis	4	2	3	2	1	1
Femur P	4	1	1	1		
Femur D	2		2		1	
Tibia P	3		2		2	
Tibia D	8		4	1	1	1
Calcaneum	2	1		1		
Metacarpal P	15	2	7	3		2
Metatarsal P	11	3	5	2	1	3
Metacarpal D	6	7	7	2		1
Metatarsal D	10	3	1		1	3
1st phalange	6	2	1			1
2nd phalange	2	2	1		1	1
3rd phalange	1	2		1		1

Element	Cattle		Sheep/Goat		Pig	
	2	3	2	3	2	3
Total	127	54	74	46	21	23

Mean given of 3rd and 4th metapodials; phalanges /4 to standardise their frequency; mandibles with molars and/ or 4th premolar; horn cores with frontal bone attached.

3.2 SPECIES REPRESENTATION AND DIET

The main domestic species dominated the assemblage (Table 4). In all phases cattle were present in greatest numbers, although their relative proportions declined in later phases, as numbers of sheep and pigs increased (Figure 4). Because of the uneven fragmentation of the Phase 2 assemblage observed above, proportions of the three main domesticates were also analysed using a restricted count, the epiphysis only method (Grant, 1975: 384). This indicated that in Phase 3 pigs made a bigger contribution to the faunal remains than previously observed using the all fragment count, and cattle and sheep were less important. Horse and dog remains were recorded in small numbers in the main phases, as were domestic birds (domestic fowl, duck and goose), becoming more frequent with time.

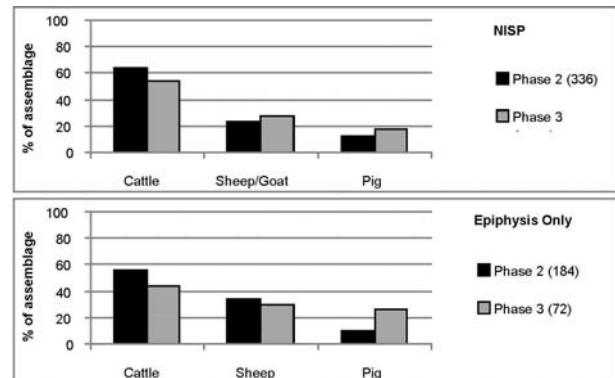


Figure 4

Wild mammals were also recovered, the majority of deer bones were antler, although limb bones from red, roe and fallow deer were also recorded. Rabbits and fallow deer were present in greatest proportions in Phase 3, although they were also present in Phase 2, as well as red and roe deer. A number of wild birds were also recorded from Phase 3b contexts, including edible species such as golden plover and the probable bittern and partridge, all of which could have been caught locally. The bones from turdus species such as blackbirds may also have been eaten, although they are common background birds.

In all phases the diet of the inhabitants would have been dominated by beef, even though pork and mutton would also have been available. The high diversity of wild mammals and wild and domestic birds would also have added variety to the diet, and such species are often indicative of high status diets.

The nearby site of 1-2 Tower Street (O'Connor 1999, 375-6), comprising part of the castle ditch, contained deposits contemporary to Phase 2. Although the proportions of the main domesticates (cattle, sheep/ goat and pig) were similar to those from Clifford Street, there was a greater proportion of horse, dog and cat remains, and fewer wild species, which may represent a spatially distinct area used for the deposition of non-edible carcasses.

In addition to the Franciscan Greyfriars Priory, a contemporary Gilbertine Priory of St Andrew situated on Fishergate, also in York has also been extensively excavated and a large number of bones analysed (O'Connor 1991; Rowland 2005). These reflect the increase in pig - and to a lesser degree, sheep - in proportion to a decrease in cattle in the later phases, and also illustrate a similarly well provisioned, high-status ecclesiastical house, incorporating a range of bird species and wild mammals. The increase of fallow deer over red occurred during the medieval period (Cummins 1988, 84), and is also evident at the urban ecclesiastical site of Austin Friars, Leicester (Thawley 1981).

Table 4 Species representation (fragment count)

Species	1	2	3	0.125	3b	4
Cattle	37	216	67	12	34	
Sheep/Goat	16	65	21	1	30	
Sheep		12	4	1	1	
Goat		2				
Pig	9	41	20		17	
Horse		3	1			
Dog		2	1		1	
Cat					1	
Deer		-1	-1			
Red deer	-1	1(5)			-1	-1
Roe deer		1				
Fallow deer		2	1		2	
Rabbit		1			4	
Amphibian					1	
Domestic fowl	2	5	3		25	
Goose		4	1		7	
Duck			1		7	
Bittern?					1	
Partridge?					1	
Golder Plover					1	
Turdus spp.					4	
Crow					1	
Total identified	65	361	121	14	139	0
Unid. mammal	7	40	111		44	
Large mammal	27	138	80	4	12	
Med. mammal	18	99	51	2	42	
Small mammal					7	
Unid. bird		1	1		116	
Large bird					1	
Total	117	639	364	20	361	0

Numbers in parentheses indicate the number of antler fragments

3.3 THE ANIMAL ECONOMY

There was no indication of neonatal fatalities of cattle or sheep in any phase, suggesting that these animals were not bred in the vicinity of the site. There was evidence for a neo- or perinatal pig in Phase 3b, which is consistent with the practice of keeping pigs in medieval towns (Wilson 1994, 113)(Table 5).

Cattle and sheep in Phase 2 saw major culls at around prime meat age (*c.*3 years old). There were a number of elderly animals, however, which would possibly have been used for milk or wool production, traction or breeding (Figure 5). This

is reflected in the sheep tooth wear data which indicates that animals died at prime meat age - mandible wear stages 9, 23, - and those which lived to be older, at wear stages 33, 34, 37 and 38 (Grant 1982). Unfortunately, there were no cattle mandibles complete enough to calculate wear stages from, and not enough metrical data from complete bones to investigate sexual polymorphism, and therefore understand better the underlying animal husbandry.

Although sample sizes are smaller in Phase 3, the majority of cattle were kept alive longer, until nearer to four years of age, with the exception of a small number of veal calves culled before reaching one year of age. Sheep appear to have been subject to a compromise, whereby a large cull of animals was made of those at less than 2½ years old, with a substantial number kept alive until older. Very little tooth wear data was again available, although one calf mandible was recorded with a mandible wear stage of 3 and a sheep/ goat mandible of 34.

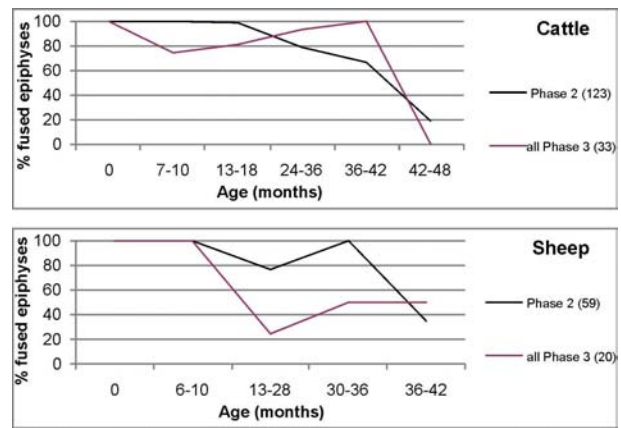


Figure 5

Pigs are more commonly killed for meat at younger ages, as they mature more quickly than sheep and cattle, and this is reflected in the assemblages from both phases, where the majority were culled between one and two years of age.

Although the majority of bird bones do not fuse at maturity in the same way as mammal bones, the long bones of immature birds are more porous than those of adults. There was a notable increase in the proportion of immature domestic fowl between Phase 2 (17% of the limb bones were unfused and/ or porous), and Phase 3 (51%), implying that chickens were culled earlier - within the first few months of life (Serjeantson 2009, 39). All duck and goose bones were mature, indicating that they were of use for eggs and/ or feathers, and therefore kept alive longer.

Nearly all the deer bones from Phase 2: a red deer distal metatarsal; fallow deer distal radius and proximal ulna; and a roe deer distal tibia were unfused, coming from immature animals. Data from Phase 3 was not comparable, as only early fusing bones were recorded (a fallow deer proximal radius and proximal metatarsal), all of which were fused.

A number of pathologies were observed - a cattle pelvis with signs of eburnation on the acetabulum from Phase 1; a third phalange from a cow with signs of inflammation on the plantar surface, possibly indicative of laminitis - increased blood flow to the foot caused by spring grass - from Phase 2; a sheep radius with exostosis on the lateral shaft and a cattle femur with eburnation on the caput both from Phase 3. With the exception of the phalange, all these pathologies are likely the result of age related deterioration.

Table 5 Fusion ages based on the proportion of fused bones at each stage

Cattle		
Fusion Age	Phase 2	all Phase 3
0	100	100
40822	100	75
40925	99	81
24-36	79	93
36-42	67	100
42-48	19	0

n	123	33
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Sheep

Fusion Age	Phase 2	all Phase 3
0	100	100
40821	100	100
40935	77	25
30-36	100	50
36-42	34	50
n	59	20

Pig

Fusion Age	Phase 2	all Phase 3
0	100	84
12	89	50
24-27	0	0
36-42	0	0
n	17	20

4.0 DISCUSSION

There is a clear distinction in the nature of animal bone waste deposited between the two major phases. In the pre-monastic phase cattle bones underwent greater processing and fragmentation than those of pigs and sheep, which coincides with the likelihood that the bones deposited in this phase were the product of domestic waste, or food refuse. In the monastic phase of the site, however, the faunal remains are more consistent with butchery waste, with a greater number of vertebrae and lower leg bones recorded. Although it is possible that these bones reflect a more low status diet, this is not consistent with other evidence. It is entirely in keeping with the inhabitants of monastic houses to undertake a number of activities at separate, spatially distinct areas (O'Connor 1993, 107), and it is therefore likely that this area was one associated with the deposition of butchery waste. Caution should therefore be sounded at this stage on placing emphasis on this assemblage as a reflection of the diet and provisioning of the monastery as a whole, given the limited nature of the deposit from Phase 3.

Nonetheless, the high species diversity in both the main phases is indicative of a high-status diet, particularly the deer in Phase 2 and pigs, deer, rabbit and bird species in Phase 3. The inclusion of young animals can also imply a high-status diet, and this is reflected by the presence of cattle, sheep and pigs at prime meat age in Phase 2, as well as very young sheep and cattle in Phase 3. The presence of juvenile chickens is indicative of an increase in their importance for meat, and high numbers such as those recorded in the monastic phase of the site are redolent of high-status ecclesiastical sites, and similar proportions of juvenile chicken bones were recorded at Eynsham Abbey from the 12th century (Serjeantson 2009, 281).

Contemporary urban deposits from York in Phase 2 (i.e. Skeldergate, Tanner Row, Coppergate, Aldwark, Fishergate and Blake Street) showed a similar predominance of cattle bones. However, by Phase 3, the assemblage recorded at Clifford Street contains a greater proportion of cattle and pig bones, and more diverse species than contemporary sites such as Skeldergate, Tanner Row, The Bedern and Aldwark, where sheep are predominant. Only at Coppergate and Fishergate was such a variety of minor species recorded, as well as higher numbers of cattle and pigs (O'Connor 1999, Table 90), which

emphasises the similarities in diet of the inhabitants of the monastery with other ecclesiastical, and local secular sites.

The absence of evidence for the breeding of cattle and sheep in the area is consistent with the likely nature of this site as a net consumer site, although some production of pigs and chickens occurred, as was the practice within medieval towns. There is little to be concluded regarding the rural economy of the producer sites, given the small sample size of this assemblage, and the myriad factors affecting the distribution of animals from countryside to urban deposits (O'Connor 1989). Nonetheless, the provisioning of animals at prime meat age in Phase 2 is also observed at Fishergate, and suggests that the intensive exploitation of sheep for wool, and cattle for milk had not begun in earnest before the 13th century, therefore allowing the creation of a surplus of animals to be supplied to town for meat. By way of contrast, the deliberate provisioning of veal calves is observed in Phase 3, which reflects a new demand for such animals for the wealthy within medieval towns at this time, possibly resulting from increased dairy production (Albarella 1997, 22). The same trend was observed at St Andrew's Priory (O'Connor 1991, 251). The presence of older sheep also implies their use for secondary products, consistent with the well documented wool trade in England at this time.

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APPENDIX E THE SMALL FINDS

Cecily Spall

1.0 INTRODUCTION

A medium assemblage of ferrous and non-ferrous metal, stone, bone/antler, glass and fired clay objects was submitted for conservation assessment and identification. The assemblage of ferrous and non-ferrous metalwork was submitted for x-ray and conservation assessment undertaken on behalf of FAS by Karen Barker, Antiquities Conservation.

The metal objects were x-rayed at 110kv for one minute and examined by microscope. Full identification of the objects was undertaken by examining x-ray plates on a light box colour corrected to 5000k. All the metalwork finds are packaged in a polythene 'Stewart' box with silica gel to provide a dry micro-environment of less than 15% or 35% relative humidity as appropriate which should prevent further corrosion of the finds (Neal and Watkinson 1998). As a result of the conservation assessment a possibly gilded copper-alloy mount was cleaned and stabilised along with three coins; the coins have been referred to a numismatist. Seventeen fragments of window glass were also cleaned and rejoined and have been referred to Dr Hugh Willmott. Two bone objects were also cleaned. Photographic records of the conserved objects was made prior to and following treatment and are included in the conservation records which form part of the site archive.

2.0 ASSESSMENT

2.1 FERROUS OBJECTS

A total of 20 ferrous objects were identified in the assemblage represented primarily by structural ironwork. The structural ironwork was dominated by nails, and fragments of nails, but a hinge pivot was also included (Find no 40). Two possible blades were identified (Find no 29 and 75).

2.2 NON-FERROUS OBJECTS

2.2.1 Dress accessories

Dress pins

A total of 31 wound-wire copper-alloy pins were included in the assemblage. Pins of this type are broadly dateable to the 14th century onwards when they are believed to have been produced in increasingly significant quantities (Egan and Pritchard 1991, 299). Assemblages of these pins from York suggest a slightly later floruit originating in the 15th century and continuing through the 16th (Ottaway and Rogers 2000, 2916, Table 303). Documentary and pictorial sources suggest they were used to pin women's hairstyles and head dresses, although at Clifford Street their presence in some quantity in dumps from the friary suggests their use may have been broader. Likewise at Fishergate York where similar numbers were recovered from the Gilbertine Priory (46 examples) and significantly more at the Bedern (131 examples)(*ibid.*).

Lace chapes

Two small sheet-rolled lace chapes (Find no 73) were identified and are relatively common finds of 14th-century and later date, with several examples recovered from sites in York (Ottaway and Rogers 2000, 2920, Table 306; Spall 2005).

Twist fastener

A single twisted wire loop was represented (Find no 72) and while identification of such objects is not entirely resolved may represent dress accessories. Again assemblages from sites in York have been identified (Ottaway and Rogers 200, 2919; Fig. 1491; Spall 2005). These objects appear to originate in the late medieval period persisting into the post-medieval

period.

Gilded mount

Find no 37

An unusual elongated quadrilobe copper-alloy mount was identified (Find no 37). The object is broadly sub-oval with lobes to each side which are punctuated with rivet holes. The mount is decorated with repousse dots around its edge containing a cross stamped with dots with rosette terminals and a rosette in the hollow of each arm. The surface bears traces of possible gilding and the rear has a small area of mineral-preserved leather adhering to it.

2.2.2 Craft-working

Ingot

A fragment of copper-alloy ingot was identified and may have originated in Anglo-Scandinavian deposits (Find no 69); several stone ingots moulds were recovered from 16-22 Coppergate from deposits of 9th- to 11th-century date, which reflect the size and form of the Clifford Street ingot (Mainman and Rogers 2000, 2478).

2.3 BONE OBJECTS

2.3.1 Craft-working waste

Thread picker

A fragmentary bone or antler thread picker was identified (Find no 21). The fragment appears to represent a cigar-shaped tool and bears two areas of incised decoration, a band of cross hatching enclosed in parallel lines and partial band of decoration of herringbone decoration again enclosed with incised lines. In terms of the picker's decoration and form it is very similar to a picker from Flixborough (Walton Rogers 2009, 288; Fig. 9.7), while examples from Fishergate York include a picker with possible vestigial decoration (Rogers 1993, 1270, Fig.626). Notably, both parallels are from Anglian deposits, although similar tools were recovered from 16-22 Coppergate (Walton Rogers 1997, 1756)

Unfinished antler tooth plate blank

An unfinished antler tooth plate blank was recovered, probably residually from C1065. The piece measures 45mm x 21mm x 10.5mm and was apparently discarded during manufacture as it is too thick for use in a composite comb. The piece probably derives from the manufacture of composite combs and joins the small group of antler off-cuts recorded with the animal bone assemblage.

2.3.2 Personal items

Bone comb side plate

A small length of decorated bone/antler comb side plate was recovered (Find no 22). The fragment derives from a composite, double-sided comb with teeth of two different gauges on either side. The teeth were sawn following the assembly of tooth and side plates as the saw-marks of the tooth plates continue onto the latter. The fragment bears decoration in the form of incised lines enclosing a band of chevrons and as such can be compared with bone or antler objects from the city decorated with similar schemes. Three examples of composite double-sided combs with incised lines and chevron decoration have been recorded, one example notably from Clifford Street (Waterman 1959, 88; Fig 17.3; Plate XVIII.11; Tweddle, Moulden and Logan 1999, 294; Fig.115; p273, Fig.93). A handled comb thought to have Frisian origins or influence also bears similar decoration (Waterman 1959, 88-90, Fig. 17.1), as does a decorated bone strip recovered from St Leonard's Place (Tweddle, Moulden and Logan 1999, p279, Fig 101). Notably, the parallels for this object are Anglian.

2.4 STONE OBJECTS

2.4.1 Craft-working waste

Jet finger ring

A small fragment of jet finger ring was identified in the assemblage and appears to represent part of an unfinished item (Find no 76). The fragment appears to have reached the lathe polishing stage of manufacture and may have broken during finishing. Small facets of possible knife trimming are visible on the piece the final polishing of which had clearly begun. Some evidence for the manufacture of jet items during the Anglo-Scandinavian period has been encountered in York at 6-8 Pavement and Parliament Street, although the fragment may be Roman (Mainman and Rogers 2000, 2498).

Amber bead

A fragmentary and apparently unfinished amber bead was identified and almost certainly dates to the 9th to 10th century (Find no 77). The bead had been knife-trimmed, perforated and judging by striations on its circumference had broken during lathe polishing. An assemblage of amber-working waste was recovered from excavation at the site of The Friend's Meeting House, Clifford Street, which included evidence for the manufacture of amber beads and at 16-22 Coppergate where amber-working dated from the mid-9th century with an apparent floruit in the 10th (Panter 2000, 2504; 2508).

2.5 CERAMIC OBJECTS

2.5.1 Craft-working waste

Loomweights

Two fragmentary clay loomweights are represented in the assemblage (Find no 78 and 79). These loomweights were used to tension the warp on a warp-weighted loom, a loom thought to have fallen out of use in York in the early to late 10th century (Walton Rogers 1993, 1269; Walton Rogers 1997, 1753).

2.5.2 Pipe-clay object

A large fragment of pipe clay was identified and probably derives from a press-moulded figurine or statuette. The fragment shows a small area of possible drapery with pelleted trim and may belong to a figure of a saint.

3.0 RECOMMENDATIONS

The assemblage is well-packaged to archival standards and is stable.

Catalogue

Structural ironwork

Find no 40	F22 C1089	Hinge pivot; arm 48mm L
Find no 41	C1153	Fragment of large dome headed nail
Find no 42	C1030	Iron nail shank
Find no 43	C1125	Nail fragment
Find no 44	C1153	Six fragmentary nails
Find no 71	C1110	5 fragmentary nails and iron strip with iron rivet

Miscellaneous ironwork

Find no 29	C1076	Iron blade
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Find no 75 F53 C1150 Possible iron blade tip and three undiagnostic fragments

Copper-alloy items

Find no 20 F7 C1038 2 small copper-alloy wire-wrap headed pins
 Find no 31 C1088 1 small copper-alloy wire-wrap headed pin
 Find no 32 C1153 10 small copper-alloy wire-wrap headed pins
 Find no 33 C1153 2 lengths fine twisted copper-alloy wire
 Find no 34 F8 C1169 1 small copper-alloy wire-wrap headed pin
 Find no 35 C1098 1 small copper-alloy wire-wrap headed pin
 Find no 36 C1075 1 small copper-alloy wire-wrap headed pin
 Find no 37 C1101 ?gilded copper-alloy mount with repousse decoration of circles around the edge enclosing a cross of four arms of punched circles terminating in rosettes with four rosettes in the arm hollow; mineralised grass and leather remnant adhering to the back; two rivet holes
 Find no 38 F31 C1114 late medieval coin/jeton referred to numismatist
 Find no 39 F8 C1169 late medieval coin/jeton referred to numismatist
 Find no 66 F53 C1150 Roman coin referred to numismatist
 Find no 67 C1153 5 small copper-alloy wire-wrap headed pins
 Find no 68 C1063 2 small copper-alloy wire-wrap headed pins
 Find no 69 C1015 fragmentary copper-alloy ingot
 Find no 70 C1065 5 small copper-alloy wire-wrap headed pins
 Find no 72 C1153 Small copper-alloy twist fastener
 Find no 73 F71 C1171 2 small copper-alloy lace chapes
 Find no 74 F71 C1171 2 small copper-alloy wire-wrap headed pins

Bone objects

Find no 21 C1063 Bone thread beater decorated with band of cross hatching contained within two concentric lines and partial chevron band enclosed with two bands
 Find no 22 F55 C1152 Small fragment of bone/antler comb side plate decorated with incised parallel lines and chevron decoration; one partial rivet hole preserved
 Find no 158 C1065 Antler blank probably from bone comb manufacture, unfinished tooth plate blank

Stone objects

Find no 76 C1063 Jet ring fragment
 Find no 77 C1063 Amber bead fragment

Ceramic objects

Find no 78 F53 C1150 Fragment annular loomweight
 Find no 79 F51 C1148 Fragment annular loomweight
 Find no 145 F55 C1152 Fragment pipe clay vessel with moulded decoration

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APPENDIX F THE COINS

Craig Barclay

Find no 38, Pit F31

AE jetton; France/Tournai

Crown type

Obv.) +AVE MARIA GRACIA PLE around crown

Rev.) Triple-stranded cross fleury in quadrilobe, Vs in angles

Third quarter of the 14th century

Light wear; contemporary loss

Find no 39, Pit F8

AE Jetton; France/Tournai

Shield of France Modern type

Obv.) Illegible inscription around shield of 3 lys

Rev.) Triple-stranded cross fleury in quadrilobe, Vs in angles

Mid-15th century

Poorly struck, but light wear; contemporary loss

Find no 66, Pit F53

AE illegible

Probably radiate of later 3rd century AD

APPENDIX G THE SHELL

Matilda Holmes

1.0 INTRODUCTION

Marine shell was recovered from Phase 2 pits (the pre-monastic phase), Phase 3b pits and rubbish dump and a Phase 3 layer (the monastic phase). The assemblage was small, but worthy of note.

2.0 DESCRIPTION

The marine shell assemblage was dominated by oysters, although two cockle shells were recovered from Phase 3b, and a common snail from Phase 2 (Table 1). The shells were generally in good condition. The valve height of oyster shells were plotted (Figure 1), which indicated that those from Phase 3b were smaller than those from Phase 2. The reasons for this are not clear, it could be any, or a combination, of the following: removal from different habitats; seasonal fluctuations in the number of juveniles present; or their over-exploitation in the later phase (Classen 1998, 46-49).

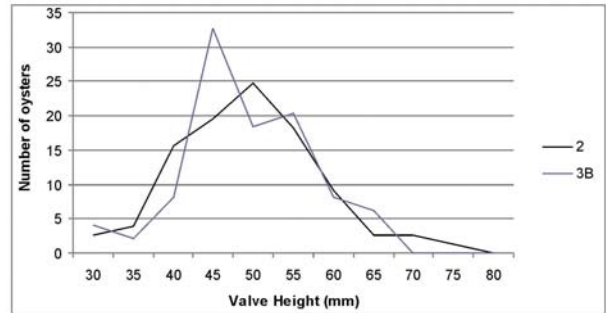


Figure 1

Figure 1 Oyster valve height in Phase 2 and 3b

Table 1 Species representation (fragment count)

Species	2	3	3b
Oyster	91	19	58
Cockle			2
Common snail	1		
Total	92	19	60

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APPENDIX H THE CERAMIC BUILDING MATERIAL

Cecily Spall

1.0 INTRODUCTION

An assemblage of ceramic building material (CBM) was submitted for assessment and recording (53 fragments were individually recorded including examples of bonded brick). The assemblage was entirely late medieval in date and dominated by high status forms such as floor tiles, glazed roof furniture and brick with adhering painted wall plaster. The excavation was situated within the former precinct of the Franciscan friary and much of the material appears to derive from demolition of friary buildings which is consistent with the quality and forms identified. Consequently, the material has been compared to the published CBM assemblage from excavations at the nearby Priory of St Andrew; excavations in the claustral range undertaken by the York Archaeological Trust (Garside-Neville 1996, 294-297; Stopford 1996, 298-301) and excavations in the precinct undertaken by FAS (Spall 2005).

2.0 ASSESSMENT

2.1 ROOF FURNITURE

2.1.2 Plain and peg roof tile

Medieval plain roofing tile formed the largest part of the assemblage and was recorded on site and disposed of. This form is only broadly dated in York appearing in the 13th and in use until the 16th century retaining handmade and clay source characteristics during this period. Where the method of suspension was not intact, tiles were defined simply as plain tiles, although tiles with square and round holes were noted.

Glazed roof tile

Six plain roof tile fragments also displayed areas of deliberate glaze. Glazed roof tile represents a higher status product, for example, the glazed ridge and roof tile from Clarendon Palace. This type of tile would have been fitting for most friary buildings, although it was not recovered in notable quantity and its use may have been restricted.

3.1.5 Ridge tile

Nine fragments of ridge tile were present in the assemblage including examples of crested and plain ridge tile. Crested ridge tiles are known in London from the 1190s (Dr Ian Betts, *pers. comm.*), but are broadly dated to the 13th to 16th century in York and complement roofs made of plain and peg tile. The Clifford Street crested ridge tiles consist of a tab of clay applied to the apex of the tile into which interrupted crests were subsequently knife- or wire-cut. Several crested ridges were in the same fabric containing abundant rounded quartzose and may belong to a single roof or batch of production. One fragment of crested ridge tile was also glazed and a fragment identifiable only as plain glazed ridge tile may also actually derive from a crested piece. Similar ridge tiles were found at St Andrew's, Fishergate, York and in Southampton where they were dated to the 13th to 14th century (Garside-Neville 1996, 295; Dunning 1975, 189). A single further plain ridge tile was identified in the assemblage and showed signs of sooting and spalling.

2.2 FLOOR TILE

Twenty-three fragments of floor tile were recovered during excavation, including monochrome glazed tiles of pale yellow with slip (9), dark green to black (8) and dark brown (4) glazes and three fragmentary inlaid tiles. Among the monochrome glazed examples were a group which commonly measured in the order of c.120mm x 120mm suggesting they may have

derived from a common tiled floor. Some examples showed signs of very heavy wear while others only light wear which would result from higher traffic in some areas. A couple of the monochrome tiles had been cut into triangles or near-triangles, some scored after firing and split and some scored prior to firing and snapped, which suggests the floor may have been, or incorporated panels, on the diagonal. Examples in dark green, pale yellow and dark brown all fall into this group and may suggest a colour scheme for a pavement of monochrome tiles, perhaps panels in the friary church. These tiles probably date from the late 14th to 15th century.

Three fragmentary inlaid floor tiles were also identified in the group. All the tiles were heavily worn, in some cases right through the glaze and inlaid clay slip, but decorative schemes which partially survived included an oak leaf; a possible, illegible inscription over a roundel containing a lion rampant and possibly heraldic; a pelleted lobed roundel and bird, possibly a dove. This design can be identified as from the Nottingham tile series (assigned Whitcomb design WH/80) with examples recorded at St Mary's, York, Beningborough Hall and Hull Old Town (Stopford 2005, 193; 195; 101). The tile was manufactured between *c.*1325 and 1365.

2.3 BRICK

Thirteen fragments of bonded brick were present in the assemblage and were covered with painted lime wall plaster sometimes over two faces. The pieces obviously originate from the same scheme and colours were consistently recorded as dark yellow, pale red and dark red, filling cells incised into the plaster while wet apparently with a rule or guide. The plaster is also likely to have been painted while wet to aid adhesion of the ochre-based pigment. The scheme which can be tentatively reconstructed consisted of a geometric pattern of bands of chevron alternating in red and yellow which incorporated a simple string or band of a single course of bricks which were also plastered and painted red. Two fragments preserve a rebated angle and may derive from window or door surrounds suggesting they came from a brick building. Complete bricks recorded measured 265 x 130 x 40mm.

Surviving medieval brick buildings in York are rare and the earliest, the Merchant Adventurers Hall, dates to the late 14th century. Brick is commonly found archaeologically as it was used as wall tiles to infill timber-framed panels rather than from brick buildings *per se*. The fragments recovered from Clifford Street appear to derive from a brick building and as such are likely to derive from a building of the late 14th century at the earliest and probably derive from a building of 15th-century date.

3.0 CATALOGUE

Find no	Feature no	Context no	Description
96	45	1137	Two fragments of brick bonded with lime mortar and covered with lime plaster painted with chevron in red and yellow ochre
97	45	1137	Fragment of interrupted crested ridge tile, same fabric as 156, 163 and 176
98	45	1137	Floor tile 123mm x 120mm, very worn, vestige of brown glaze under mortar on bevel and on base suggests possible monochrome tile
			2 conjoining fragments of large pale yellow monochrome floor tile, 170mm x 171mm, 33mm thick, corner knapped suggesting scheme of panels set on diagonal
			1 small corner of light yellow monochrome floor tile, bevelled, 28mm thick
99	8	1169	1 small fragment of dark green glazed monochrome floor tile, bevelled, 33m thick
			1 near-complete dark green glazed monochrome floor tile 120mm x 120mm, bevelled, 33mm thick, very worn
			1 half pale yellow glazed monochrome floor tile 123mm, scored on diagonal post-firing, some wear, 28mm thick

Find no	Feature no	Context no	Description
			1 half dark green glazed monochrome floor tile 121mm, very worn, bevelled, 25mm thick 1 corner dark brown glazed monochrome glazed floor tile, very worn, possibly inlaid, bevelled, 23mm thick c. half section inlaid glazed floor tile with pelleted roundel and ?bird, nail hole, 25mm thick, very worn near half section dark brown glazed monochrome floor tile 120mm, bevelled, mortar over surface, 33mm thick 1 corner of dark brown glazed monochrome floor tile, bevelled 30mm thick Fragment of pale yellow glazed floor tile 121mm, very worn with no glaze left on upper, bevelled, 28mm thick 1 corner of pale yellow glazed monochrome tile with ?brush applied glaze becoming orange-streaked at edges, bevelled, 30mm thick
155	40	1129	fragment of dark green glazed monochrome floor tile 120mm, bevelled, 29mm thick, glaze partially vitrified, some wear fragment of possible pale yellow glazed monochrome floor tile, very worn, bevelled, 32mm thick fragment triangular dark brown glazed monochrome floor tile, 135mm, scored before firing and split, bevelled, 21mm thick
156	40	1129	End fragment of interrupted crested ridge tile, mortared Fragment of interrupted crested ridge tile, reused
157	40	1129	Two bricks bonded with lime mortar, 45mm thick x 130mm wide covered with lime plaster scored with lines and painted with red, pale red and dark yellow ochre in geometric fields possibly incorporating chevron design travels round two faces over a corner
161	39	1128	Fragment plain glazed roof tile
162	-	1109	Corner of plain glazed roof tile Fragment plain glazed roof tile
163	13	1066	Two conjoining fragments of interrupted crested ridge tile, 2 complete tabs <i>in situ</i> , same fabric as 97, 156 and 176
164	-	1074	Interrupted crested ridge tile, glazed, 1 complete crest preserved
165	55	1152	1 corner dark green glazed monochrome floor tile, bevelled, worn, 30mm thick 1 corner light yellow glazed, barely any bevel, worn
166	-	1043	Glazed plain roof tile fragment
167	-	1105	Glazed plain roof tile fragment
168	46	1138	1 corner dark green glazed monochrome floor tile, slight bevel, very worn, 27mm thick
169	-	1130	Glazed plain roof tile fragment
170	15	1073	Glazed plain roof tile fragment
171	58	1156	Near-complete dark green glazed monochrome floor tile 122mm x 120mm x 29mm thick
172	24	1098	Brick with rebate of lime wall plaster painted with red ochre, 45mm thick a 130mm wide
173	24	1098	Fragment plain ridge tile, sooted and spalled
174	24	1098	Near half-section dark green glazed monochrome floor tile 120mm, no bevel, 25mm thick Near half section very dark green to black glazed monochrome floor tile, 130mm, bevelled, 23mm thick Near-complete inlaid glazed floor tile 130mm x 133mm a 19mm thick, very worn, oak leaf design in white clay
175	2	1012	1 corner inlaid floor tile, worn, ?inscription over roundel containing lion rampant in panels of three vertical stripes, bevelled, 35mm thick Triangular, pale yellow glazed monochrome floor tile 120mm, scored post-firing over glaze

Find no	Feature no	Context no	Description
			and split although less than half the original tile, bevelled, some light wear
176	2	176	Fragment interrupted crested ridge tile in same fabric as 156, 163 and 97
186	32	1115	Brick with adhering wall plaster scored and painted with pale red and dark yellow ochre, 42mm
187	13	1066	Brick with adhering wall plaster scored on the diagonal and painted with pale red and dark yellow ochre, 41mm
188	52	1157	Brick with adhering wall plaster scored and painted with pale red and dark yellow ochre, 43mm
189	2	1012	Two bricks with adhering wall plaster scored and painted with pale red and dark yellow ochre, 38 and 42mm
190	2	1012	Brick with adhering wall plaster scored and painted with pale red and dark yellow ochre, 37mm
192	45	1137	Two small fragments wall plaster with small chips of brick, plaster painted in red ochre and scored pale red and dark yellow ochre respectively
193	46	1138	Brick with adhering wall plaster scored with likely chevron and painted with pale red and dark yellow ochre, 42mm x 125mm
194	13	1066	Brick with adhering lime mortar, rebated wall plaster scored and painted with pale red and dark yellow ochre, 40mm x 130mm x 265mm
195	13	1066	Two bricks bonded with lime mortar and 2 faces covered with wall plaster over a corner, one face scored with possible chevron and painted in red and dark yellow ochre, the other plain red, not right-angled but possibly from embrasure or recess, bricks 38mm and 42mm x 123mm and 140mm
196	45	1137	Two bricks bonded with lime mortar and covered with scored painted wall plaster, scheme possibly horizontal bands dividing weak red and dark yellow ochre
197	46	1138	Four bricks bonded with lime mortar and covered with scored painted plaster over two faces with plaster incised with chevron band coloured with red and dark yellow ochre, complete brick measures 220 x 125 x 45mm

4.0 DISCUSSION

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APPENDIX I THE WINDOW GLASS

Dr Hugh Willmott

1.0 DISCUSSION

A very small assemblage of window glass was recovered from the excavations, and given this the material is discussed typologically rather than contextually. The assemblage contains two very interesting pieces that reflect the variety of designs current in the late 13th and 14th centuries. All the glass is catalogued below. The best comparative assemblages for this material are from the Gilbertine priories of St Andrew, Fishergate and St Andrew's, York (Graves 2000), and it is entirely likely that the Franciscan friary obtained its glass from the same workshops.

Although heavily devitrified, GL1 is a portion of a pattern quarry with a strapwork edge that would have formed a mesh design when leaded with other similar quarries. This is a triangular piece indicating it came from the edge of the glazing scheme and is decorated in the centre with a trefoil motif, which probably mirrored quatrefoil examples in the corresponding diamond-shaped quarries of the central window. Similar late 13th-14th century pieces were found at Fishergate (Graves 2000, 376).

GL2 is more complex in design, being the buttress edge to what was probably a much larger architectural scheme forming a canopy over a figure of a saint. The lancet and trefoil decorated buttress acts as a springer for the canopy arch which is decorated with a lobed and dot design. Based upon the architectural style this piece appears to be early 14th-century in date and is similar, but not identical, to other examples from Fishergate and St Andrew's, York (Graves 2000, 401; 476).

A further painted piece of glass, GL3, was recovered, but unfortunately is too small for accurate identification of its design. GL4 is a narrow grozed strip that would have formed part of a border design for a larger panel, although this appears not to have been painted. Likewise, GL5 is apparently undecorated, although very heavily weathered, which might have removed any original designs. The final fragments of glass, GL6, are much thinner and better quality. Although plain, these can be dated to the late 15th or more probably the 16th centuries, and therefore may not have originated at the friary.

2.0 CATALOGUE

GL1 Fragments of a patterned quarry painted with a trefoil motif on a plain ground and strapwork edging. Green clear glass, now totally devitrified.

Late 13th-early 14th century.

F55 C1152

GL2 Fragments from a patterned quarry. Painted with a stylised architectural motif, with a trefoil topped lancet-decorated buttress and the spring of a canopy arch. Green clear glass with some surface devitrification.

Early 14th century.

C1153

GL3 Small fragment of glass with painted remains of unidentifiable foliate design. Green clear glass with relatively light weathering.

13th-14th century.

F55 C1152

GL4 Fragments of a portion of grozed-edge rectangular border. Appears to be plain and undecorated. Green clear glass with heavy weathering.

13th-15th century.

C1153

GL5 Fragment of window glass, with no remaining decoration. Heavy surface weathering and totally devitrified.

13th-15th century.

C1065

GL6 Fragments of fine plain window glass. Light surface discolouration and weathering.

Late 15th-16th century.

F71 C1171

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APPENDIX J THE FISH BONE

Matilda Holmes

1.0 INTRODUCTION

Fish bones were recovered by hand and sieving, all from Phase 3, the monastic phase of the site.

2.0 METHOD

Bones were recorded using the system devised by Barrett (Harland *et al.*, 2003), where only the most diagnostic elements are identified. They were labelled by family unless a specific taxon could be identified.

3.0 DESCRIPTION

The assemblage was dominated by marine species - cod, mackerel and herring - as well as eel and freshwater species, perch and pike (Table 1). Interestingly, the marine fish assemblage, and that of the eel, are dominated by vertebrae, suggesting that they were brought to the site without their heads, possibly salted or pickled to aid preservation. The freshwater species, however, were only represented by head fragments, implying that they were procured as whole fish and eaten fresh, or preserved on site.

Similar species have been recorded from ecclesiastical sites of St Andrew's Priory, Fishergate (Rowland 2005), The Bedern (O'Connor 1999) and the Austin Friars, Leicester (Thawley 1981), and also from secular sites of Coppergate and Tanner Row within York (O'Connor 1999, Table 96).

Table 1 Species representation (fragment count) - all from Phase 3

Anatomy	Cod	Mackerel	Herring	Eel	Perch	Pike
Caudal Vertebrae	32	9	80	69		
Cleithrum	3				1	
Dentary		1		1	1	
Hyomandibular	1					
Maxillary	1					
Vomer				1		
Articular					2	
Otolith	1					
Premaxillary						1
Preopercular					1	
Quadrate			2		1	
Total	38	10	82	71	6	1

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APPENDIX K THE ARCHITECTURAL STONE

Dr Jonathan Clark

1.0 INTRODUCTION

An assemblage of architectural stone fragments was submitted for identification and assessment. Although none of the pieces assessed were complete it was possible to identify a group of mouldings dating from the mid-13th century to the mid-14th century; among this group many of the pieces showed evidence for reuse. The majority of the mouldings within the assemblage were of a generic form and only dateable to between the 13th and 16th century.

2.0 CATALOGUE

Find No 1 F3 C1020

Magnesian limestone block 240mm x 200mm width not preserved with five worked faces, four finely dressed. The block has a deep chamfer 180mm long on one corner and a rebate on adjacent corner 80mm deep. There is some evidence for the stone having been reworked on one corner. The block is from a door jamb of the 13th to 16th century.

Find No 2 F3 C1020

Magnesian limestone block 200mm x 130mm x 150mm with three dressed faces. The block retains a chamfer which would suggest that it derives from a door jamb. Not closely diagnostic in date but likely to be of the 13th to 16th century.

Find No 3 F40 C1129

Magnesian limestone moulded fragment 290mm x 200mm x 180mm with three dressed faces, the remainder broken. One face has a semi-hollow and the opposite face appears to have a fragment of casement moulding. Probably 13th to 16th century in date and from a composite moulding, possibly window tracery.

Find No 4 F40 C1129

Magnesian limestone moulded fragment 180mm x 160mm x 140mm with two dressed faces, the remainder broken. Both faces have semi-circular hollow mouldings of unequal size. Probably 13th- to 16th-century composite moulding, possibly from window tracery.

Find No 5 F40 C1129

Magnesian limestone moulded fragment 270mm x 200mm x 140mm with four dressed faces, the remainder broken. One face is chamfered and a further face retains mortar. The fragment is probably from a door jamb of 13th- to 16th-century date.

Find No 6 F40 C1129

Magnesian limestone moulded fragment 200mm x 150mm x 110mm with two dressed faces, the remainder broken. Moulding appears to be a fragment of rebate, possibly from a door jamb or window. Undiagnostic of date but medieval to post-medieval.

Find No 7 F40 C1129

Small magnesian limestone fragment 110mm x 100mm x 70mm with two dressed faces remainder broken. One dressed face has a slightly curved convex face. Undiagnostic.

Find No 8 F40 C1129

Magnesian limestone fragment 190mm x 100mm x 50mm with three dressed faces, the remainder broken. The stone has a chamfered mitre profile. Common moulding used on vault ribs, mullions, arcades and other continuous features (Morris 1992, 12), 13th to 16th century.

Find No 9 C1098

Sandstone drain cover, recovered fragmented into five pieces, rectangular 420mm x 520mm with raised edge. Central rectangular hole 140mm x 140mm with rebated edge to take counter sunk cover. Probably a yard gully drain cover.

Find No 10 C1098

Sandstone block 300mm x 220mm x 80mm thick with four worked faces and two broken faces. Quarter roll with fillet to one edge. String course possibly from freestanding structure such as a wall or gate, probably 18th to 19th century.

Find No 11 F40 C1129

Limestone moulded fragment with glazing groove 230mm x 200mm. Possible degraded large ogee moulding associated with glazing groove perhaps representing window sill. Mortar adhering to moulded surface indicates that the stone has been reused. Window sill.

Find No 12 F40 C1129

Limestone moulded fragment 230mm x 200mm x 140mm with chamfer. Traces of mortar on one unbroken face. Undiagnostic.

Find No 13 F40 C1129

Limestone fragment with undiagnostic chamfer.

Find No 14 F7 C1038

Limestone moulded fragment with double chamfer moulding 200mm x 120mm x 110mm the chamfers measure 60mm. Four dressed faces with one undressed and one broken face. Mortar adhered to one large flat face (other broken off). This is probably part of a window mullion and is of similar proportions to Find No 15, 13th to 16th century.

Find No 15 F7 C1038

Limestone moulded fragment with double chamfer moulding 270mm x 100mm x 200mm the chamfers measure 70mm four dressed faces with two broken edges. Mortar adhered to main large flat faces. This is probably part of a window mullion and is of similar proportions to Find No 14, 13th to 16th century.

Find No 16 F7 C1038

Limestone block with chamfer 290mm x 120mm length not recorded, small chamfer to edge 120mm in length. Possible plinth stone of 13th- to 16th-century date.

Find No 17 F7 C1038

Limestone block with chamfer 260mm x 200mm length not recorded, deep chamfer 220mm. Possible plinth stone of 13th- to 16th-century date.

Find No 18 F7 C1038

Limestone fragment with two chamfers max. width of stone 240mm with five worked faces and one broken face. Probably part of a engaged column or fragment of vault rib of typically 13th- to 14th-century date.

Find No 20 F7 C1038

Conjoining limestone fragments curving with double chamfer 440mm x 300mm x 100mm with five worked faces and one undressed face. Two large main faces retain mortar. The stone is part of a hood moulding for a door or window opening, the un-complex moulding profile in use throughout the medieval period.

Find No 46 C1138

Magnesian limestone block (fragment) 230mm x 150mm x 90mm with two worked faces, remaining faces are unworked or broken. Main dressed face retains a patch of smooth plaster, some mortar adhering to other roughly dressed face. This is a facing stone which has been plastered.

Find No 85 C1015

Magnesian limestone moulded fragment 130mm x 90mm x 50mm with three worked faces, two finely tooled and moulded, three broken faces. Half roll moulding with asymmetric fillet. Part of moulding from a door or window jamb. Late 13th- to 14th-century in date.

Find No 88 F2 C1012

Magnesian limestone moulded fragment 200mm x 180mm x 60mm with three worked faces and three broken faces. One edge is curved and resolves into a straight section; this edge has ogee moulding along it. The stone has two main faces, one broken and the other flat with lime wash extending across the ogee moulded edge. Mortar adheres to the lime washed face and moulded edge indicating that the stone has been reused. The stone probably formed part of the head of a cusped stone arcade, 13th to early 14th century.

Find No 89 F46 C1138

Magnesian limestone moulded stone - complete 100mm x 70mm x 70mm with all faces worked and finely tooled. Two opposing faces are curved and the remainder are flat. Both curved faces and the smallest flat face retain areas of lime wash. One face retains a laying out mark, symmetrically positioned between the curved faces. Probably an internal facing stone from a wall arcade. Not diagnostic of date, but broadly medieval.

Find No 90 F2 C1012

Magnesian limestone moulded fragment 110mm x 90mm x 70mm with 2 worked faces finely tooled and moulded, other faces broken. Ogee moulding with small hollow rather than quirk to face. Traces of plaster on face. 13th to 14th century.

Find No 177 F13 C1066

Sandstone roof tile with round peg hole 250mm x 220mm x 15mm, peg hole 15mm with 5 roughly worked faces and 1 broken edge and detached corner. Mortar adhering to back face indicating that the roof covering was torched.

Find No 178 F40 C1038

Magnesian limestone moulded fragment 210mm x 100mm x 90mm with four worked faces, three finely tooled and moulded, two faces broken. Scroll moulding with lime wash and black and red decoration, the overlapping edge picked out with a black line. The manner of decoration and position of adhered mortar would suggest that it formed part of a stringcourse. Moulding very typical of the period 1250 to 1350 in England (Morris 1992, 14).

Find No 179 F22 C1089

Magnesian limestone moulded fragment 150mm x 150mm x 70mm with four worked faces, two finely tooled and moulded, two broken faces. Early form of shallow wave moulding terminating in quirks flanked with the start of a hollow chamfer and face into small chamfer. Traces of lime wash remain on moulding. Probably an arris moulding from a window

embrasure or door opening of mid to late 13th date. However, mortar spread across the moulding would suggest that the stone has been subsequently reused.

Find No 180 F45 C1137

Magnesian limestone moulded fragment 140mm x 70mm x 90mm with four worked faces, two finely tooled and moulded, two broken faces. Lime mortar adhering to two roughly dressed faces. Quarter roll moulding terminating in quirks along one long corner, with traces of a thick lime wash coating. Probably an arris moulding from a window embrasure of late 13th- to 14th-century date.

Find No 181 F2 C1012

Two magnesian moulded fragments with identical mouldings. The larger fragment 130mm x 50mm x 40mm, the smaller 80mm x 60mm x 40mm. The former has three worked faces and three broken faces and consists mainly of roll with fillet, the base of the roll going into probable semi-circular hollows either side. The latter is identical except that part of the moulding has been cut away probably to accept a stone judging by the presence of mortar around the cut.

In both examples the junction between the roll and fillet is slightly curved indicating that these are not early forms of the moulding and, therefore, likely to be late 13th century or 14th century. They are from a window or door jamb, or possibly a column.

Find No 182 F46 C1138

Moulded limestone fragment 210mm x 110mm x 100mm with three worked faces, two finely tooled, and three broken faces. Part of a corbel with the front face being curved with a raised lip at the top. The remaining front corner has a chamfer with elongated stop. The corbel has received several coats of lime wash. The chamfer stop is typical on corbels of the 14th century and 15th century.

Find No 183 F46 C1138

Magnesian limestone block 200mm x 150mm x 80mm with two worked faces one with striated tooling and one with adhering limewashed wall plaster. Possibly reused. Probably 13th to 16th century

Find No 184 F46 C1138

Magnesian limestone fragment with moulding 220mm x 150mm x 140mm with three worked faces and two broken faces. The moulding primarily consists of a large roll (80mm diameter) with squared fillet, engaged against a face. Traces of lime wash remain on the moulding. The fragment is likely to come from a wall shaft, perhaps an arcade. The squared fillet suggests an early date for the moulding and a mid-13th century date is likely.

Find no 185 F22 C1089

Magnesian limestone complete block with single chamfer and glazing groove 190mm x 190mm x 180mm. All faces dressed, two finely dressed. Claw tooling employed on the roughly dressed faces with finer oblique tooling on the exposed faces. Mortar adhering to the roughly dressed faces. The block is an external jamb stone of a window opening of 13th to 16th century date.

3.0 ASSESSMENT

Most of the fragments examined had mouldings which are generic for the mid-13th century to 16th century and corresponding with the period during which the friary may have been engaged in building activity. Notably, within the assemblage there were ten fragments (Find nos 18, 85, 88, 90, 178, 179 to 182 and 184) that could be dated to between the

mid- 13th and 14th century. Many of the architectural fragments within this group retained evidence for mortar applied to the moulding profile, indicating that they had been reused, possibly as wall-core material. This suggests that buildings, or at least parts of buildings, of the mid-13th to mid-14th century were demolished and reused as a rubble component in new structures.

Within the latter group there were two items that were diagnostic of a 13th-century date. Find no 184 was moulded with a roll and squared fillet and probably belonged to a wall shaft is unlikely to be much later than the mid-13th century, while Find no 179, incorporating a shallow wave moulding is diagnostic of the late 13th century. It is therefore likely that the wall shaft (Find no 184) is from one of the first buildings constructed by the friary after its foundation in 1243.

The range of features represented by architectural fragments include, for example, stringcourses, corbels, arcades, door jambs and window details. The range of features are consistent with buildings with a high level of ornament and Find no 178 (scroll moulded stringcourse) provides some insight into the painted decorative schemes that were employed. Unfortunately, the assemblage consists of relatively small fragments, mainly from a wide range of different architectural features and it is thus difficult to reconstruct the overall form.

Most of the stones retain some evidence for tooling with claw tooling predominate (rows of small indentations) on the more finely dressed surfaces. Claw tooling appears to have been introduced into York in c.1200 (Graves 1996, 227; 269), and its appearance on material which is likely to date from after 1243 is unsurprising. Coarse striated tooling is employed for faces that would have been hidden, although finer striated tooling has also been employed on moulding details.

4.0 RECOMMENDATIONS

The group of fragments which can be dated closely and are diagnostic of form and function or those which are less diagnostic but retain evidence for simple decorative schemes should be retained for future study should further assemblages be recovered from the friary site and more broadly from similar institutions in the city (Find nos 18, 85, 88, 90, 178, 179 to 184). Those fragments which are not indicative of date or function or represent common forms have been recorded photographically and should not be retained in archive (Find nos 1-20, 89 and 185).

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APPENDIX L THE CLAY TOBACCO PIPE

Jenny Mann

1.0 INTRODUCTION

This small assemblage includes seven pipe bowls, all dating to the second or third quarter of the 17th century, and 21 stem fragments. The clay is an off-white colour, and the pipes generally show a relatively poor quality of finish.

2.0 ASSESSMENT

All but one of the bowls show the incipient bulbous form that is typical of Yorkshire pipes of the period (see Oswald 1975, 46; Fig. 5, NE), but are not necessarily of local manufacture. Pipes of 17th-century date from York and Hull are very similar in style (see Lawrence (1979, 67), but two of the bowls in this assemblage (1063f and 1065: *c.* 1650-80) are almost certainly Hull products; they are notably thick-walled (*cf* Watkins 1979, 85, type 1), whereas York pipes of this period tend to have much thinner walls.

A single piece (from C1063e) is distinctly different; this is a slender bowl with an almost straight rear, which has more in common with the straight-sided pipes found further south and particularly in Lincolnshire (*cf* Mann 1977, 11). Both this and the two Hull pipes have fine milling below the rim; most of the other bowls are marked only with a partial groove below the rim.

Stem fragments from (C1052) and (C1088) are consistent with a 17th- to early 18th-century date, while the latest of those from (C1065) and (C1097) are likely to belong to the mid/late 17th or 18th century and the notably slender fragment from (C1098) is most likely 18th-century. The latest of the stem fragments (from C1063) suggests that all of the bowls in this group are residual in an 18th- or 19th-century context.

Context	Find no	Count	Comments
1052	113	1	Stem fragment: SB7 x 1 Bowls: (a-c) <i>c.</i> 1640-60. Slightly bulbous with relatively large flat circular heel; 2 with partial groove below rim. SB7. (d) <i>c.</i> 1640-60. As above, with partial groove below rim. SB6.
1063	115	6	(e) <i>c.</i> 1640-60. Slender, with almost straight rear; fine milling below rim, flat circular heel. Patchy (ferrous?) staining. SB 6. (f) <i>c.</i> 1650-80. Bulbous, with fine milling below rim; thick-walled. Large, flat sub-circular base. SB7.
1063	115	8	Stem fragments: SB7 x 4; SB6 x 2; SB5 x 1; SB4 x 1. Several with patchy (ferrous?) staining.
1065	116	1	Bowl <i>c.</i> 1650-80. Bulbous; fine milling below broken rim becoming shallow groove; thick-walled. Large, flat sub-circular base. SB6. Patches of (ferrous?) staining.
1065	116	4	Stem fragments: SB7 x 2; SB6 x 2;
1088	125	1	Stem fragment, SB7.
1097	127	6	Stem fragments: SB7 x 5; SB5 x 1. Some with light (ferrous?) staining or slight external sooting.
1098	128	1	Stem fragment, very slender, SB5

SB = stem bore, measured in 64ths of an inch

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